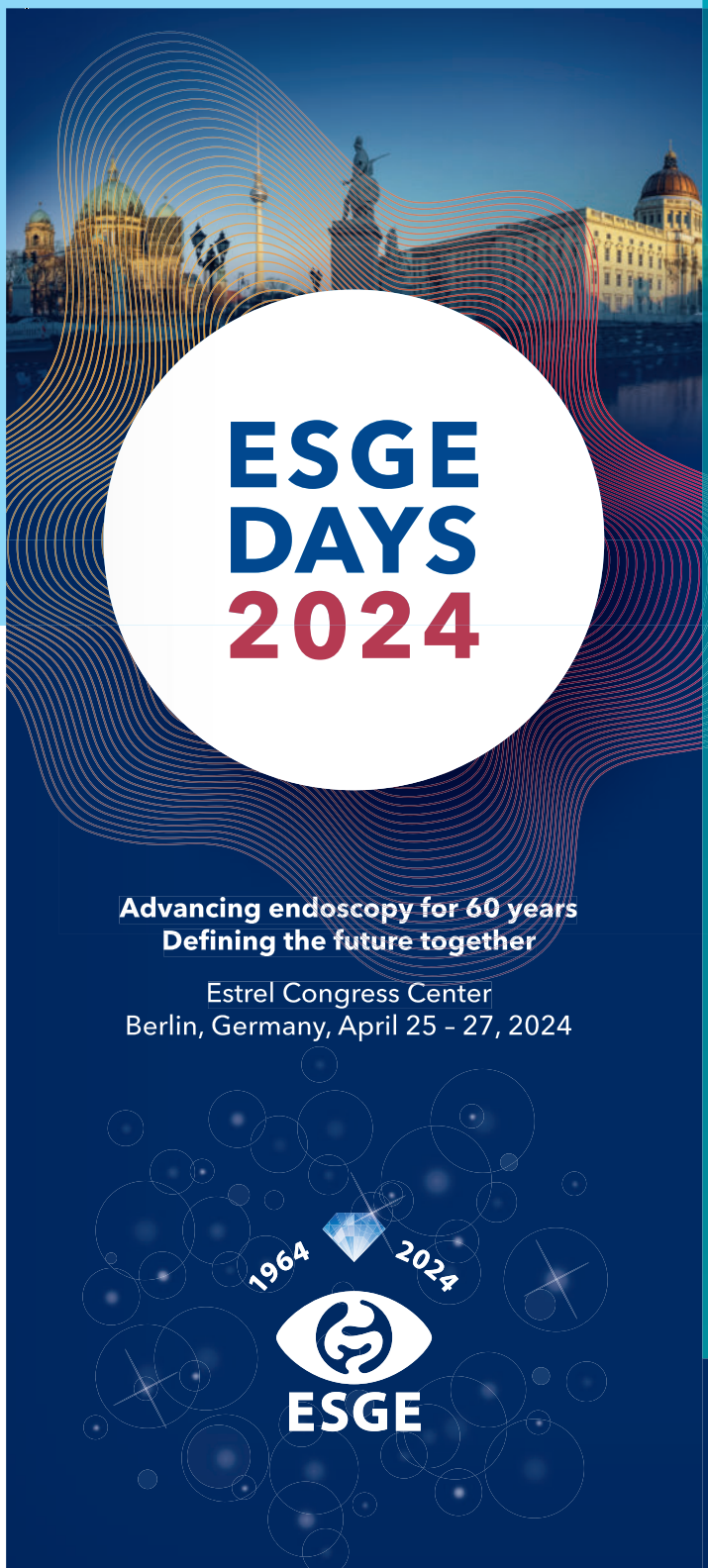
Endoscopy

Supplement

S02/2024



ESGE Days 2024

Abstract issue

This journal is indexed in MEDLINE, Current Contents (CM + LS), Science Citation Index, and in EMBASE/Excerpta Medica and SCOPUS

Official Organ of the European Society of Gastrointestinal Endoscopy (ESGE) and Affiliated Societies

Thieme

Thieme

ESGE Days 2024

Date/Venue:
25.–27. April 2024, Berlin, Germany

Congress President:
Ian Gralnek

Welcome message

Tomáš Hucl
ESGE Scientific Committee Chair

Dear colleagues in endoscopy,

It is a great honor and pleasure for me to welcome you, on behalf of the ESGE Scientific Committee, to read the ESGE Days 2024 accepted abstracts in this supplemental edition of *Endoscopy*.

We are very happy to have received a total of 1462 abstract submissions from 57 countries across the world, breaking once again an ESGE Days record. This year we were not only thrilled by the number of abstracts, but also by the high quality of the work submitted. In addition, we are delighted to have received many abstracts from our nursing community ESGENA. It is this original research that forms the backbone of the scientific content of our meeting and provides an insight into the latest developments in our field.

To all the researchers who shared their research results with us a heartfelt 'Thank you!'. It is your submissions and participation that pushes us forward on our journey to be the number one endoscopy meeting in the world and we are proud to present your work at the meeting.

We look forward to putting your research in the spotlight in Berlin, in a variety of different formats. We will present the three best abstracts during our opening Presidential Jubilee session, and for the first time they will be accompanied by state-of-the-art lectures on the same topic. The next best abstracts will be presented as oral presentations during a record number of 52 Free Paper sessions (2 sessions showcasing the nursing abstracts) distributed over all three days of the congress. For ESGE Days 2024 we are delighted to further showcase your research in the form of moderated posters, where authors will get a chance to present and discuss their results with expert moderators and delegates on our two new poster stages. Last but not least, all abstracts will be available throughout the congress to browse via the poster stations at the heart of our congress, the Science Arena.

As you can see, there will be a lot to explore and learn from in Berlin. All of this would not have happened without the outstanding work of the Scientific Committee which has worked hard to develop the programme and review and allocate the abstracts. A heartfelt thank you to the Scientific Committee and also to the wonderful ESGE office team for all their support.

At ESGE Days our mission is to advance endoscopy and forge connections, and therefore the Scientific Committee and I are proud to invite you not only to read the abstracts, but also to join us in Berlin to collaborate, network, and work towards a bright future for the field we share a passion for! In addition, this year marks the 60th birthday of the ESGE, I hope you will join us in celebrating the jubilee year.

Your ESGE Scientific Committee Chair,
Tomáš Hucl

Endoscopy 2024; 56: S1–S503

The abstract issue status is as at March 13, 2024.

Abreviations:
BA: Best abstract
OP: Oral presentation
MP: Moderated poster
eP: ePoster
V: Video

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Best abstracts

ESGE Presidential Jubilee Session

25/04/2024, 14:00 – 15:30 Convention Hall 1A

BA001 Strict endoscopic follow-up after endoscopic resection (R0) of high-risk T1 adenocarcinoma in Barrett's esophagus seems feasible: Preliminary results of a prospective, international, multicenter cohort study (PREFER)

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DOI 10.1055/s-0044-1782697

Aims Optimal management following radical endoscopic resection (R0 ER) of T1 esophageal adenocarcinoma (EAC) is still a matter of debate due to conflicting reports on the risk for lymph node metastases (LNM). In case of histological risk factors for LNM, i.e. submucosal invasion, a/o poor differentiation, a/o lympho-vascular invasion (LVI), additional treatment with esophagectomy is often still recommended. In this prospective international multicenter cohort study (NCT03222635), we aim to evaluate the safety of a strict endoscopic follow-up (FU) strategy following R0 ER for T1b and high-risk T1a EAC.

Methods In 19 hospitals in Europe and Australia, we included patients who underwent radical ER for a high-risk T1a EAC (poor differentiation, a/o LVI), low-risk T1b (submucosal invasion < 500 um, well-moderate differentiation, no LVI) and high-risk T1b (sm-invasion ≥ 500um, a/o poor differentiation, a/o LVI). After ER, patients underwent re-staging with endoscopic ultrasound (EUS) and CT/PET. If there were no signs of LNM or distant metastases, patients were consented for strict endoscopic FU, with gastroscopy and EUS every 3 months during years 1 and 2, every 6 months during years 3 and 4, and at year 5. CT/PET was repeated after 1 year. Primary outcome parameters are 5-year disease-specific and overall survival; secondary outcome parameters are rates of distant metastasis, LNM, and local recurrence ineligible for endoscopic re-treatment.

Results Since July 2017, 143 T1b patients (118 men, 69 ± 9 yrs, 95 high-risk T1b, 48 low-risk T1b) were included. Median follow-up was 19 (IQR 8-33) months. 1/143 (0.7 %, 95 % CI 0-2.1) patient was diagnosed with a distant pulmonary metastasis that was resected with selective surgery. 9/143 (6 %, 95 % CI 2.3-10.3) were diagnosed with LNM. All were detected at a curable stage, but 1/9 declined surgery and eventually died from EAC. 7/143 patients (5 %, 95 % CI 1.3-8.5) developed an intra-luminal tumor recurrence ineligible for endoscopic treatment, of which 2/7 declined additional esophagectomy and eventually died from EAC. 7/143 (5 %) died during FU due to unrelated causes. Since July 2020, 41 HR-T1a patients (36 men, 70 ± 8 yrs) were included. After median FU of 8 (IQR 2-17) months, no patients in this subcohort were diagnosed with recurrent disease.

Conclusions Our preliminary findings support a strict endoscopic FU strategy in selected patients who underwent radical ER for high-risk T1 EAC with no signs of metastatic disease (cN0M0) at baseline. In our cohort, 9 % (95 % CI 5-13) of patients was diagnosed with metastasis or invasive intra-luminal recurrence during FU, of which the vast majority (16/17) were still diagnosed at a curable disease stage. Non-EAC-related mortality (4 %) was higher than EAC-related mortality (1.6 %).

Conflicts of interest Authors do not have any conflict of interest to disclose.

BA002 Endoscopic full-thickness resection of duodenal neuroendocrine tumors using the Full-Thickness Resection Device (FTRD): Results from a large, retrospective, multicenter study

Authors A. Wannhoff[1], Z. Nabi[2], L.M. G. Moons[3], G. Haber[4], P. Ge[5], T. Dertmann[6], P. H. Deprez[7], C. Bouvette[8], J. Mueller[9], G. grande[10], M. F. Kaminski[11], J.J. W. Kim[12], A. Weich[13], P. Bauerfeind[14], J. George[15], M. Pioche[16], F. V. Mandarino[17], K. Kouladouros[18], G. Tribonias[19], P. Boger[20], B. Hayee[21], M. Bilal[22], S. C. Albers[23], P. Leclercq[24], G. Paspatis[25], M. Caselitz[26], A. Sharma[27], S. Arulprakash[28], M. Zachäus[29], S. Irani[30], M. Barret[31], J. Hoare[32], U. Denzer[33], G. Moog[34], A. Ebigbo[35], K. Caca[1]

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DOI 10.1055/s-0044-1782698

Aims Duodenal neuroendocrine tumors (dNET) are rare tumors of the small intestine and are often found as an incidental finding of a subepithelial lesion during endoscopy. The Full-Thickness Resection Device (FTRD) enables endo-

scopic full-thickness resection of epithelial and subepithelial lesions. Endoscopic mucosa resection (EMR) has a low R0 resection rate for this indication, while endoscopic submucosal dissection (ESD) is associated with a higher rate of adverse events.

Methods As part of an international, multicenter study, patients who underwent FTRD resection of dNET were retrospectively identified at 35 centers. Endpoints were rates of technically successful resections, R0 resections and adverse events.

Results 165 cases were identified at 35 centers. The median age was 64 years (range: 24 – 86) and 70 patients (41.4 %) were female. The target lesion was in the duodenal bulb in 142 cases (84.0 %), in the descending part in 25 cases (14.8 %), and in the horizontal part and ascending part in one case each (0.6 %). Median size of the lesion on endoscopic ultrasound was 10 mm (range: 4 – 22). Prior endoscopic treatment had been performed in 35 cases (20.7 %). Gastroduodenal FTRD was used in 164 cases (97.0 %). The lesion was reached with the FTRD in 165 cases (97.6 %) cases. In three cases it was not possible to pull the lesion into the cap and thus resection was successful in 162 cases (95.9 %). Median procedure time was 43 minutes. Histologically, an R0 resection was present in 120 cases (71.0 %), an incomplete resection was found in 33 (19.5 %) and completeness of resection could not be assessed (Rx) in 11 cases. During follow-up there was no recurrence among these eleven cases. Total rate of recurrence was 3.0 % (n = 5 cases). An intraprocedural adverse event occurred in nine cases (5.3 %). Among them were five events of bleeding, that were treated endoscopically and classified as mild, and four perforations, which were treated by endoscopy and surgery in two cases each. Postinterventional adverse events occurred in 23 patients (13.6 %), which included 12 events of bleeding. All patients were treated endoscopically and only one event was classified as severe due to an ICU admission. Other adverse events included pain (n = 3), duodenal obstruction (n = 4), liver abscess > 30 days after the procedure (n = 1) and other (n = 3). Only three of all adverse events were classified as severe (1.8 %).

Conclusions Resection of dNET using endoscopic full-thickness resection with FTRD showed a high rate of technical success, an acceptable R0 resection rate, very low rate of recurrence and a low rate of severe adverse events. It thus seems preferable over EMR or ESD for endoscopic resection of dNET.

Conflicts of interest The Department of Internal Medicne at Hospital Ludwigsburg was supported by a reasearch grant from Ovesco Endoscopy AGP. Ge and U. Denzer worked as Consultant or did lecture activity for Ovesco endoscopy

BA003 Cold snare endoscopic resection for large colon polyps – a randomized trial

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DOI 10.1055/s-0044-1782699

Aims Despite improvements in technique, severe adverse events (SAE), including post-procedure bleeding, remain a major concern following endoscopic resection of large colorectal polyps. We examined whether cold resection without the use of electrocautery reduces the risk of SAE and affords completeness of resection.

Methods We performed a multicenter, randomized trial of patients with a large nonpedunculated colon polyp (≥ 20 mm) at 10 medical centers in North America from October 2019 through January 2023. Patients were randomly assigned to endoscopic mucosal resection (EMR) without electrocautery (cold EMR group) or with electrocautery (hot EMR group) and were followed until their first surveillance colonoscopy. Hot EMR included margin treatment and defect closure as indicated. The primary outcome were SAEs in intention to treat analysis, defined as an event that required hospitalization, a blood transfusion, colonoscopy, surgery, or another invasive intervention within 30 days after completion of the colonoscopy. The secondary outcome was the rate of polyp recurrence at surveillance colonoscopy. Because crossover from cold to hot EMR was expected (assumed 10 %), we also performed a per protocol analysis. Additional subgroup analysis considered polyp characteristics and use of periprocedural antithrombotic medications.

Results 660 patients were randomized, and 518 (78.5 %) completed their first surveillance colonoscopy. Crossover occurred in 14.6 % in the cold EMR group and in 13.4 % in the hot EMR group. An SAE was observed in 2.1 % of patients in the cold EMR group and in 4.3 % in the hot EMR group ($p = 0.62$) with postprocedure bleeding in 0.9 % and 2.8 %, respectively ($p = 0.52$). When the analysis was restricted to patients who received the intervention as randomized (per protocol analysis), significantly fewer SAEs occurred in the cold EMR group as compared to the hot EMR group (1.4 % vs 4.9 %, $p = 0.017$), with postprocedure bleeding in 1.1 % and 2.5 %, respectively ($p = 0.34$). Polyp recurrence was detected in 28.0 % in the cold EMR group and 14.2 % in the hot EMR group ($p < 0.001$). In the per protocol analysis recurrence rates were 28.7 % and 15.4 % ($p < 0.001$), respectively. In subgroup analysis SAE risk differences between groups remained unchanged. However, risk of recurrence was similar for the subgroup of 20-29 mm polyps (18.5 % vs 15.7 %) and for sessile serrated polyps (15.0 % vs 14.5 %). The greatest recurrence risk was noted for adenomas with high grade dysplasia (46.5 % vs 18.4 %, respectively, $p = 0.004$).

Conclusions This large multicenter trial showed no significant safety benefit of universal cold EMR for large colorectal polyps. However, after accounting for a high crossover rate, cold EMR had a significantly lower SAE rate compared to hot EMR. This safety benefit of cold EMR is offset by a greater recurrence rate, particularly for advanced pathology. Our findings do not support the universal application of cold EMR for large non-pedunculated colorectal polyps.

Conflicts of interest The study was supported by research grants from Steris and Cosmo Pharmaceuticals

Oral presentation

Management, Education & Hygiene

25/04/2024, 08:30 – 09:30 Room 6 & 7

OP001 Transition to a sustainable endoscopy unit

Authors C. Lavín Expósito[1], A. Bouhmidi Assakali[1], V. Rodriguez Romero[1], P. Vozmediano Sánchez[1], M. Velasco Del Burgo[1], M. Alañon Barba[1], F. Moraleda Cebrián[1], M. L. Hidalgo Juárez[1], J. Pinilla Sánchez[1], C. Bonillo Merino[1], A. Sanchez Pardo[2], M. Sanchez Alonso[1], E. Barreto[1], I. Salueña Salueña[1]
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DOI 10.1055/s-0044-1782700

Aims Climate change and the destruction of ecosystems by human activities are among the greatest challenges of the 21st century and require urgent action. Healthcare activities contribute significantly to greenhouse gas emissions and waste production, with gastrointestinal endoscopy being one of the largest contributors due to its resource-intensive activity with a significant environmental impact. The Endoscopy Scientific Societies recommend taking immediate action to reduce this environmental impact. The main objetives are:
Raise awareness and reduce the ecological footprint of gastrointestinal endoscopy.
Quantify and work to reduce environmental impact, and become a Green-endoscopy organization.

Methods The appointment of a sustainability officer and employee recruitment, along with communication and education are important to enact change. Teams need to be goal-conscious and motivated.
The next steps to consider would be the proper sorting of waste; reduce paper, with QR codes for patient information and satisfaction surveys; reduce plastic and sterile water; the design of procedures to reduce the number of endoscopies and histologies; and take a more selective approach to reduce the number of accessories used.
Our Integrated Area Management maintains sustainability as a vision, as part of the certification process in the 140001 Standard in 2024, and having green champions in the Endoscopy Unit is also now part of the Global Scale that provides an additional incentive to the organizational structure.

Results The reduction in the consumption of sterile water, and consequently plastic, has been from an average of 160 litres per month in the last half of 2022 to an average of 9 litres in the first half of 2023.
Endoscopic referral criteria procedures have improved referrals from 58.82 % in the first quarter of 2023 to 71.5 % in the third quarter. [1–3]
The implementation of a nurse's consultation has improved preparation for colonoscopies from 16.84 % of inadequate preparation to 8.97 %.

Conclusions Immediate, non-controversial, cost-neutral adjustments we can make to our practice include quality sorting and streamlining waste management. Much of our understanding of the environmental impact of endoscopy is not drawn from empirical data, and assumptions as to the comparative environmental impact of one action over another can lead to well-intentioned interventions with unintended consequences.

Conflicts of interest Authors do not have any conflict of interest to disclose.

References

[1] Reducción de la huella ambiental de la endoscopia gastrointestinal: Declaración de posición de la Sociedad Europea de Endoscopia Gastrointestinal (ESGE) y la Sociedad Europea de Enfermeras y Asociados de Gastroenterología y Endoscopia (ESGENA) DOI https://doi.org/10.1055/a-1859-3726 | Endoscopia 2022; $54^{3}/_{4}$
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[3] Green endoscopy: British Society of Gastroenterology (BSG), Joint Accreditation Group (JAG) and Centre for Sustainable Health (CSH) joint consensus on practical measures for environmental sustainability in endoscopy. doi: 10.1136/gutjnl-2022-328460

OP002 Nurses' workflow challenges in GI endoscopy services

Authors C. N. Borja Bruges[1], I. Martos Pereira[1], U. Beilenhoff[2]
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DOI 10.1055/s-0044-1782701

Aims Nurses can face different challenges in their endoscopy service. In-depth understanding of the pains and challenges in their daily routine is crucial for the improvement of efficiency and overall endoscopy practice, adding value to the hospital workflow, nurses, and patients. This global study investigated gastrointestinal (GI) endoscopy nurses' challenges regarding their service workflow in different hospital settings.

Methods Between June and November 2023, endoscopy nurses were surveyed using an anonymous, online questionnaire of 23 questions. The survey included GI nurses and evaluated different organizational aspects across their service. The data was collected through Microsoft forms and analyzed using excel (Version 2208)

Results Of 551 completed surveys, preliminary results of 480 GI nurses from more than 33 different countries show 55 % (n = 262) of the answers came from Germany, 5 % (n = 22) from Spain, 4 % (n = 21) from Italy, 3 % (n = 16) from Portugal and 3 % (n = 13) from France. 85 % (n = 411) of GI nurses move the tower from the endoscopy unit to another department. 22 % (n = 105) of the times the tower is moved 1-5 times a day, 9 % (n = 43) more than 5 times a week, 34 % (n = 162) 1-5 times a week, 5 % (n = 25) more than 5 times a month, 16 % (n = 75) 1-5 times a month and 14 % (n = 70) never or rarely. 53 % (n = 253) used less than 10 min to move the endoscopic tower, 34 % (n = 162) 10-20 min, 4 % (n = 19) more than 20 min and 9 % (n = 46) reported "non applicable". 14 % (n = 66) of the answers showed that patients are transported from other departments to the endoscopy unit 3-5 times a day and 20 % (n = 94) 3-5 times a week. 50 % (n = 242) of the nurses are managing the whole reprocessing cycle in their departments during normal working hours on the weekdays and 70 % (n = 335) of the nurses are managing the whole reprocessing cycle during outside normal working hours. Time pressure was the most stressful factor in the endoscope reprocessing process, followed by the impact to their own health and the liability on the reprocessing effectiveness.

Conclusions The results show that GI endoscopy nurses frequently are required to perform unappreciable tasks in addition to their main responsibilities. These additional duties may bring individual challenges which can impact their workflow and wellbeing. The main organizational challenge was the remarkable frequency and time used to move the endoscopy tower (~150kg) among departments. On the reprocessing process, time pressure, health concerns and liability on the reprocessing effectiveness were the most stressful aspects impacting GI endoscopy nurses, especially outside normal working hours. Improved solutions are needed to overcome current challenges particularly with the current shortage of nursing professionals.

Conflicts of interest Cindy Borja and Irene Martos Pereira are Ambu employees, and Ulrike Beilenhoff is an ESGENA member.

OP003 THE ECOLOGICAL IMPACT OF COLONRECTAL SCREENING ON CLIMATE CHANGE: the experience of Reggio Emilia

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DOI 10.1055/s-0044-1782702

Aims Climate change has been characterized as "the greatest threat to global health in the 21st century". The healthcare sector stands as one of the primary contributors to waste worldwide, accounting for approximately 4-5 % of glob-

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al CO2 emissions. Endoscopy ranks among the top three procedures in terms of overall waste production in countries such as the United States and England. Improper waste disposal poses a significant risk to the ecosystem. This study originates from the need to highlight the impact of endoscopies on climate change, specifically addressing the substantial waste generated by a common and fundamental practice like colorectal screening. Simultaneously, considering the pivotal role healthcare practitioners, particularly nurses, play in waste disposal, understanding the extent of their training becomes imperative. This assessment aims to evaluate the necessity of organizing training sessions within hospital facilities, specifically tailored to endoscopy—a small step toward an objective that is undeniably crucial for our future: making hospitals as environmentally sustainable as possible. Our aim is to investigate the ecological impact and weight of waste produced during colorectal screening in a month at the Endoscopy Department of Santa Maria Nuova Hospital in Reggio Emilia and to assess how adequate training on proper waste disposal enhances the behavior of nurses.

Methods The study will adopt an observational approach to determine the quantity of waste, categorized into paper, plastic, non-recyclable, and organic waste, produced in a month in the Digestive Endoscopy Department during colorectal screening sessions. Nurses will be administered a questionnaire to evaluate their basic knowledge, followed by specific training. Correct disposal instructions will be implemented in the endoscopy rooms. A second data collection will follow for a month to assess potential improvements. [1–5]

Results In the data collection conducted in April 2023 during screening sessions, 304.52 kg of organic waste, 33.2 kg of plastic, 16 kg of paper, and 31 kg of non-recyclable waste were produced. After nurses received training, in September 2023, 163.2 kg of organic waste, 18.2 kg of paper, 53.2 kg of plastic, and 80.16 kg of non-recyclable waste were produced.

Conclusions Nurses' behavior improved after specific training; the kilograms of organic waste produced decreased significantly (a type of waste incinerated regardless of its contents). The future objective is to extend waste weight control to all endoscopy rooms, ensuring comprehensive training for all staff. Sustainability should be considered a central factor in the quality of healthcare because we are responsible for the health of future patients as well.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP004 Adoption of Nursing Documentation in an Italian Endoscopy Clinic

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DOI 10.1055/s-0044-1782703

Aims Gastroenterology nurses need to trace their assistance during endoscopy procedures for a better individualized care and a correct handover. The forms proposed by various Societies of Gastroenterology Nurses are complex and time-consuming and nurses may fill them in partially or hastily. The nursing group of the Endoscopy Clinic of Senigallia (Central Italy) is testing and implementing a specific nursing record also based on the "ISBAR" method (patient Identification, Situation, Background, Assessment, Recommendations). [1–5]

Methods In January 2023, the nursing staff adapted the documentation produced by Italian Scientific Society ANOTE-ANIGEA (National Association of Endoscopic Technicians – National Association of Gastroenterology Nurses and Associates) in a concise check-list for a quick and easy compilation.Despite its brevity, the form had to maintain its value as an evidentiary document and allow – through timely compilation – the surveillance of the care process (collection of information, detection of risks and undesirable events, evaluation, intervention and outcome).

Results The form is divided in three parts: 1) patient reception and general assessments; 2) pre-procedure assessments (safety time-out check-list, indication of the start time of the procedure, 3) intra-procedure assessment: vital signs (NIBP, HR, SpO_2, O_2 administration, Discomfort – Gloucester Modified Scale) are monitored at the beginning and throughout the duration of the procedure. Medication administration is recorded in a grid. In case of biopsies (i.e., histological or cytological samples) the nurse responsible of the sampling specifies the number of vials and signs at the bottom. The end time of the procedure is indicated and the signatures of the two endoscopy room nurses are affixed. The traceability labels of endoscopes and accessories are attached on the back side of the card. At the end of the procedure, the patient is monitored – if sedated –in a recovery room. The onset of complications (nausea, vomiting, abdominal distension) and pain assessment are recorded, as well as possible nursing interventions. The sedation level is assessed with the Aldrete Score, with a threshold value above which the patient can be discharged. The nurse records the removal of the peripheral venous access and indicates post-procedure information/health education possibly provided (e.g. maintenance of a fasting period, avoidance of hot food and drinks, presence of bleeding from the rectum, presence of clips a few days apart in the stool, etc.). A first version of the endoscopic nursing card was tested in the first half of the year, and small graphic adjustments were made for better fillability. During 2024, the form will be also implemented in the Endoscopy Clinic of Jesi (Central Italy)

Conclusions The adoption of the nursing record improves the handover and standardise activities carried out pre, intra and post-procedure, ensuring continuity and safety of care.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP005 Implementing the collection, processing and storage of biological samples in an Italian Endoscopy Clinic

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DOI 10.1055/s-0044-1782704

Aims The availability of a correct method of collection, preparation and identification of biological samples is an essential prerequisite to ensure the safety of the personnel involved in all phases, the quality of the analytical data, and therefore the quality of the service offered to the patient.
Numerous papers report the possibility of error in the sample identification phase in the center where the sample is taken or in the operating room. The Italian Ministry of Health (2009) has produced recommendations to avoid incorrect identification of surgical specimens. Currently, no specific recommendations are available for samples obtained during endoscopic procedures, and the guidelines for operating theatres have to be applied to clinics where biopsy and/or cytological samples are taken. [1–4]
Methods In 2023 the endoscopy nurses and the staff of the Anatomic Pathology of Senigallia (Central Italy) implemented the procedure of collection, preparation and identification of histologic samples, following the recommendations of NCCLS – National Committee for Clinical Laboratory Standards.
The request of histopathology examination is digitally performed through an operating system. The system also creates the labels with a bar-code that are attached on the formalin pipes for biopsy and a hard copy that must accompany the samples. The loss of a specimen in pathological anatomy is to be considered as a serious eventuality as the specimen is often irreproducible. The procedure ensures an appropriate chain of custody with the identification of the parties responsible for the procedure, from the nurse collecting the samples to the lab technician that receives them.
Results According to current legislation, a system/container pre-loaded with buffered formalin.is used for the histological examinations in Endoscopy. At the end of each procedure involving a biopsy, each sample is correctly labeled and identified, then closed in a bio-bag, accompanied by the printed request on the operative system. At the end of the shift, all samples are re-checked and sent to the Pathological Anatomy. If the sending is delayed, the samples are stored away from heat sources and ensuring the traceability of the material. The GP's referral and the receipt of payment are sent separately.
Conclusions During the period of implementation of the procedure, the level of attention of nurses in the preparation and sending of samples increased, and there were no non-conformities.
Conflicts of interest Authors do not have any conflict of interest to disclose.
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OP006 Relevance of point-of-use sterilisation to improve the quality of endoscope reprocessing

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DOI 10.1055/s-0044-1782705

Aims Correct reprocessing of endoscopes is essential to prevent nosocomial infections and to ensure patient safety, and many outbreaks have been described in different studies in relation to poor reprocessing of endoscopes[1,2].
In this context, different reprocessing methods have been implemented, including high-level disinfection and point-of-use sterilisation. Microbiological controls are used to identify and detect failures in the reprocessing of endoscopes. The aim of this study is to evaluate the effectiveness of point-of-use sterilisation on the quality improvement of endoscope reprocessing. Preliminary results are presented here.
Methods Comparative study analysing all samples taken for microbiological control of duodenoscopes and linear echoendoscopes used in two different periods; first half of 2022 where high-level disinfection was performed (period 1, P1) and first half of 2023 where point-of-use sterilisation was performed (period 2, P2), both with peracetic acid. Weekly, and according to the Preventive Medicine Service protocol, samples were collected from the channels and forceps of duodenoscopes and linear echoendoscopes once 12 hours had passed since the last reprocessing and drying of them. A descriptive analysis of the following variables was performed: type of endoscope, date of collection, microbiological culture result and type of microorganism. The data obtained have been managed using the EXCEL spreadsheet and the statistical analyses have been carried out using SPSS. [1–2]
Results A total of 169 samples were analysed in P1 and 238 samples in P2; duodenoscopes (N = 130 in P1 and N = 150 in P2) and echoendoscopes (N = 38 in P1, N = 88 in P2). Positivity in P1 was 24.3 % (95 % CI 18-31) while in P2 it was 32.8 % (95 % CI 31-42). There was significant difference in the positive/negative results of the samples tested, with OR 0.56 (95 % CI 0.36-0.86, p = 0.009)
The results also revealed that positivity for high-risk microorganisms in P1 was 22 % (95 % CI 12-37) compared to 13.8 % (95 % CI 8-22) in P2. There was a higher probability of positivity for high-risk microorganisms in P1 with OR 1.76 (95 % CI 0.67-4.58, p = 0.25)
Conclusions Although the international demand is for sterilisation of endoscopes that pass through mucosa, enter a sterile cavity or come into contact with blood, the preliminary results of our study have shown that point-of-use sterilisation is not relevant for improving the quality of endoscope reprocessing compared to high-level disinfection. That may be because the sterility resulting from point-of-use sterilisation disappears when the endoscope is transferred from the reprocessing area to the storage one and it is handled by the Endoscopy Unit staff.
Continuous education and training of nursing staff and maintaining strict vigilance and control are necessary to ensure the highest safety for our patients.
Conflicts of interest Authors do not have any conflict of interest to disclose.
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Sweet dreams are made of these: Sedation and aneasthetics

25/04/2024, 08:30 – 09:30 **Room 11**

OP007 Efficacy of Remimazolam with Fentanyl versus Midazolam with Fentanyl for sedation in screening colonoscopy: A randomized controlled study

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Aims There is a need to improve moderate sedation for colonoscopy while maintaining safety. Remimazolam is an ultrashort-acting benzodiazepine with a favorable safety profile that might reduce recovery time and hence prove beneficial in a large clinical setting.

Aim: The aim of this project is to investigate Remimazolam with Fentanyl compared to Midazolam with Fentanyl for sedation in screening colonoscopy.

Methods A prospective, single blind, randomized, controlled superiority trial with two parallel groups with 1:1 allocation ratio in patients undergoing screening colonoscopy. 200 randomized into two groups with 100 subjects in each study arm. The primary outcome was total time from start of medication to fulfillment of the discharge criteria. Secondary outcomes were safety, need for postprocedural recovery room, patient discomfort/pain rated using NRS-11, Time to reach coecum, need for additional Fentanyl, patient satisfaction, endoscopist satisfaction measured on a scale of 1-5, Completion of the procedure [1].

The present data's are an interim analysis before study end. The subjects assigned to the control group underwent moderate sedation using intravenous Midazolam with Fentanyl, whereas subjects assigned to the experimental group underwent moderate sedation using intravenous Remimazolam (Byfavo) with Fentanyl. In both groups the subjects initially received a standard dose of Fentanyl and any need for supplementary. For induction of sedation subjects received either 2mg Midazolam or 5mg Remimazolam and any need for additional sedative was registered.

Results A total of 125 patients (Female/male ratio 59/66, mean age 63 (range 50-78)) out of the 200 patients planned were included. Total start of medication to fulfillment of the discharge criteria for Midazolam versus Remimazolam was 36,14 versus 30,41 min. Secondary outcomes for Midazolam versus Remimazolam were: Patient discomfort 2.68 versus 2.33, time to reach coecum 7.52 versus 4.48 min, need for additional Fentanyl 25.8 % versus 19 %, patient satisfaction 4.15 versus 4.59, endoscopist satisfaction mean 4.30 versus 4.59, additional need for observation after the procedure 7 patients versus 1 patient (total 14 hours versus 0.5 hour)

Conclusions The present results are an interim data presentation of a randomized study that seem to favor the combination of Remimazolam with Fentanyl over Midazolam with Fentanyl for conscious sedation in screening colonoscopy. Final results will be presented at the ESGE Days.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP008 Comparison of ciprofol versus propofol for sedation of adults undergoing gastrointestinal endoscopic procedures: a systematic review and meta-analysis

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Aims This systematic review and meta-analysis aimed to compare the efficacy, safety, and patient satisfaction between ciprofol, a novel sedative agent, and propofol for sedation of adults undergoing gastrointestinal (GI) endoscopy [1–6].

Methods PubMed, Embase, and Cochrane databases were searched for randomized controlled trials comparing both sedative agents for sedation of adults in GI endoscopic procedures and reporting at least one of the outcomes of interest. The primary outcome was respiratory depression. The secondary outcomes were hypotension, injection pain, nausea/vomiting, time-related variables (induction time, endoscopic insertion time, procedure time, and awakening time), and patient satisfaction. The risk ratio (RR) and mean difference (MD) were applied with their 95 % confidence intervals (95 % CIs) for dichotomous and continuous outcomes, respectively, using a random-effects model. Sensitivity analysis was performed if $I^2 \geq 20$ %. RevMan statistical software was used for statistical analyses. Statistical significance was attributed to a p-value inferior to 0.05.

Results We included six trials (1,225 patients). The mean age in each study ranged from 42.2-57.3 years. One study (185 patients) involved bidirectional endoscopy, two studies (438 patients) addressed gastroscopy or colonoscopy, two studies (464 patients) exclusively focused on gastroscopy, and one study (138 patients) encompassed colonoscopy or endoscopic retrograde cholangiopancreatography. Ciprofol was associated with a significantly lower risk of respiratory depression (RR 0.46; 95 % CI 0.33-0.55; p < 0.01; I2 = 0 %), as well as injection pain (RR 0.09; 95 % CI 0.04-0.20; p < 0.01; I2 = 59 %), compared with propofol. However, the sedative agents showed similar risks in terms of hypotension (RR 0.77; 95 % CI 0.54-1.10; p = 0.15; I2 = 48 %) and nausea/vomiting (RR 0.74; 95 % CI 0.37-1.48; p = 0.39; I2 = 8 %). There were no statistically significant differences between the groups regarding induction time (MD 0.28 minute; 95 % CI -0.32-0.89; p = 0.35; I2 = 98 %), insertion time (MD 0.69 minute; 95 % CI -0.85-2.24; p = 0.38; I2 = 98 %), procedure time (MD 1.07 minutes; 95 % CI -0.32-2.46; p = 0.13; I2 = 68 %), and awakening time (MD 1.02 minutes; 95 % CI -0.38-2.42; p = 0.15; I2 = 96 %). Besides, patient satisfaction was higher with ciprofol (MD 0.19; 95 % CI 0.06-0.33; p < 0.01; I2 = 10 %). The leave-one-out sensitivity analyses showed that excluding the heterogeneous study only impacted the procedure time (MD 1.58 minutes; 95 % CI 0.71-2.45; p < 0.01; I2 = 0 %), favoring propofol, and hypotension (RR 0.62; 95 % CI 0.42-0.91; p = 0.02; I2 = 0 %), favoring ciprofol. No single study significantly influenced the effect estimate or drive heterogeneity in the analysis of other heterogeneous outcomes.

Conclusions Ciprofol demonstrated comparable efficacy to propofol, except for procedure time, but showed a superior safety profile, except for nausea/vomiting, as well as higher patient satisfaction, suggesting it is a viable alternative for sedation in GI endoscopies.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP009 Remimazolam versus propofol for sedation in gastrointestinal endoscopic procedures: a systematic review and meta-analysis

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Aims This systematic review and meta-analysis aimed to compare efficacy-, safety-, and satisfaction-related outcomes between remimazolam, a novel benzodiazepine, and propofol, both combined with fentanyl congeners (FC), for sedation of adults undergoing gastrointestinal (GI) endoscopic procedures.
Methods MEDLINE, Embase, and Cochrane databases were searched for randomized controlled trials (RCTs) comparing remimazolam-FC with propofol-FC for sedation of adults undergoing GI endoscopy and reporting at least one of the outcomes of interest. The primary outcome was sedation success. Secondary outcomes were time variables (induction time, total sedation time, time to full alertness, procedure duration, and time to anesthesia discharge), adverse events (respiratory depression, hypotension, hypotension requiring treatment, bradycardia, and nausea/vomiting), and patient and endoscopist satisfaction. The risk ratio (RR) and mean difference (MD) were applied with their 95 % confidence intervals (95 % CIs) for dichotomous and continuous outcomes, respectively, using a random-effects model. We performed sensitivity analyses if $I^2 \geq 50$ % and subgroup assessments by age range (elderly [≥ 65 years] vs. young [< 65 years]) for all outcomes. We deemed $p < 0.05$ statistically significant. R statistical software was used for statistical analyses. [1–12]
Results Twelve RCTs (4,103 patients) were included. Five studies (37.6 % of patients) evaluated only patients aged ≥ 65 years. 27.0 % of patients underwent colonoscopy, 43.8 % gastroscopy, 16.9 % colonoscopy and/or gastroscopy, and 12.3 % endoscopic retrograde cholangiopancreatography. Remimazolam was associated with a significantly lower sedation success rate (RR 0.989; 95 % CI 0.979-0.998; p = 0.03) and a slightly longer induction time (MD 9.52 seconds; 95 % CI 3.76-15.29; p < 0.01), while there were no significant difference between the drugs in other time-related outcomes. Remimazolam use showed a significantly lower risk of respiratory depression (RR 0.45; 95 % CI 0.34-0.59; p < 0.01), hypotension (RR 0.46; 95 % CI 0.38-0.55; p < 0.01), hypotension requiring treatment (RR 0.35; 95 % CI 0.18-0.67; p < 0.01), and bradycardia (RR 0.45; 95 % CI 0.31-0.65; p < 0.01). Patient satisfaction was greater with remimazolam (MD 0.82; 95 % CI 0.50-1.14; p = 0.01), whereas there was no difference in endoscopist satisfaction (MD -0.01; 95 % CI: -0.07-0.06; p = 0.26). The subgroup analysis by age range showed that there were statistically differences between the subgroups only in terms of induction time – where propofol provided a shorter time only in the young –, as well as respiratory depression and hypotension – where the young showed a slightly greater benefit with remimazolam compared to the elderly subgroup.
Conclusions Compared to propofol, remimazolam demonstrated clinically similar efficacy, better safety profile, and greater patient satisfaction regarding the procedure for sedation of adults undergoing GI endoscopy, with equivalent results in young and elderly populations.
Conflicts of interest Authors do not have any conflict of interest to disclose.
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OP010 Nurse Administrated Remimazolam Sedation (NARS) for Endoscopic Ultrasound (EUS) and Endoscopic Retrograde Cholangiopancreatography (ERCP) – A prospective study of 410 procedures in a Danish University Hospital

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Aims EUS and ERCP are uncomfortable procedures requiring adequate patient sedation for succesfull completion. In the last decades non-anesthesiologist sedation for advanced endoscopy often has been Midazolam in combination with an opiod or Nurse Administrated Propofol Sedation. In this prospective study we replaced Midazolam with Remimazolam, a new ultra short acting benzodiazepine. The study aim was to evaluate the feasibilty, safety and patient satisfaction with Nurse Administrated Remimazolam Sedation (NARS) for EUS and ERCP.
Methods At the Advanced Endoscopy Unit, Department of Gastrointestinal Surgery, Aalborg University Hospital, Denmark, EUS and ERCP procedures were performed in sedation with Remimazolam combined with Alfentanil (a short acting opiod) from December 1st. 2022 until November 28th. 2023. The sedation was administered by the nurse under supervision of the endoscopist. Following data were collected prospectively: Gender, age, ASA score, all doses of Remizolam and Alfentanil adminstrated, endoscopic technical succes and procedural related adverse cardiopulmonary events. After the procedures the patients were asked regarding amnesia and the willingness to undergo a new procedure with the same type of sedation.
Results Remimazolam and Alfentanil sedation was administered in 410 procedures: 257 (62.7 %) EUS, 143 (34.9 %) ERCP and 10 (2.4 %) combined EUS/ERCP. Study population: 200 (48.8 %) females and 210 (51.2 %) males. Median age: 70.5 (17-92) years. ASA score: I = 40 (9.8 %), II = 193 (47 %), III = 168 (41 %) and IV = 9 (2.2 %). The mean dose of Remimazolam was 16.1mg (5-40) and Alfentanil mean dose was 0.68 mg (0.25-1). The overall technical succes rate was 96.3 %. Mild cardiopulmonary adverse advents (transient hypoxia, low blood pressure or tachycardia) were observed in 11 (2.7 %) procedures. None of these required procedural interuption, ventilation or anesthesiologist assistance. One patient had post procedure shivering and received an antidote injection. The procedures were performed in octogenarians defined as 80 years old or above in 62 (15.1 %) cases, with mean Remimazolam dose of 13.2 mg

(5-35) and mean Alfentanil dose 0.55mg (0.25-0.75). In the post procedure interview 310 (75.6 %) of the patients claimed complete procedural amnesia and 94 (22.9 %) partial amnesia. Six patients (1.5 %) had no amnesia. All the participants reported wiilingness to undergo a new procedure with the same type of sedation.

Conclusions Nurse Administrated Remimazolm Sedation (NARS) in combination with Alfentanil for EUS and ERCP was safe in this study, even for octogenarians and ASA III and IV patients. The technical succes rate was high. Most participitants claimed complete procedural amnesia. Surprisingly, all the participitants reported wiilingness to undergo a new procedure with the same type of sedation. This study suggest that Remimazolam is a safe and effective alternative to Midazolam or Propofol sedation for EUS and ERCP.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP011 Effects of adding intravenous lidocaine to propofol-based sedation for colonoscopy: a systematic review and meta-analysis

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Aims This systematic review and meta-analysis aimed to evaluate the effects of incorporating intravenous lidocaine into propofol-based sedation for patients undergoing colonoscopy.

Methods MEDLINE, Embase, and Cochrane databases were searched for randomized controlled trials (RCTs) comparing sedation with propofol/lidocaine versus propofol/placebo in patients undergoing colonoscopy, and reporting at least one of the outcomes of interest. The primary outcome was the total dosage of propofol required for sedation. The secondary outcomes were awakening time, procedure time, and intraoperative hemodynamic adverse events (AEs). The risk ratio (RR) and mean difference (MD) were applied with their 95 % confidence intervals (95 % CIs) for dichotomous and continuous outcomes, respectively, using a random-effects model. Sensitivity analysis was conducted if $I^2 \geq 50$ %. We performed subgroup assessments by the use of fentanyl congener (FC) (propofol with vs. without FC), and the age range (< 18 years vs. 18-64 years vs. ≥ 65 years). RevMan statistical software was used for statistical analyses.A p-value < 0.05 was deemed as statistically significant.

Results We included eight RCTs (512 patients). In three of the included studies, the propofol-based regimen included a FC (fentanyl, sufentanil, or alfentanil). 15.6 % of patients were under the age of 18, 52.0 % were between the ages of 18-64, and 32.4 % were 65 years or older. The total dosage of propofol required for sedation was significantly lower in the propofol/lidocaine group compared with the propofol/placebo group (MD -30.48 mg; 95 % CI -41.74, -19.21; p < 0.001). Additionally, the awakening time was statistically shorter among patients who received lidocaine (MD -2.81 minutes; 95 % CI -5.03, -0.59; p = 0.01). However, there was no statistically significant difference between the groups in terms of procedure time (MD 0.06 minutes; 95 % CI -1.47, 1.59; p = 0.94) and risk of AEs (RR 0.88; 95 % CI 0.70, 1.10; p = 0.26). The leave-one-out sensitivity analyses showed that results were not dependent on individual studies. There was no significant treatment interaction in subgroup assessment according to the use or non-use of FC. On the other hand, in the subgroup analysis by age range, subgroup differences were statistically significant for the total dosage of propofol and awakening time. All subgroups benefited with the addition of lidocaine in terms of propofol dosage, but the subgroup ≥ 65 years benefited slightly less compared to the others. In terms of awakening time, only the subgroup < 18 years benefited from adding lidocaine, while the other two subgroups showed a non-significant difference between propofol/lidocaine and propofol/placebo groups. [1–8]

Conclusions The addition of intravenous lidocaine to propofol-based sedation for colonoscopy demonstrated benefits in terms of reducing the total dosage of propofol required, as well as the awakening time. Furthermore, it is worth noting that these benefits were greater within the subgroup of patients aged < 18 years.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP012 Less is more: lignocaine spray use in unsedated esophagogastroduodenoscopy

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DOI 10.1055/s-0044-1782711

Aims To investigate different regimens of lignocaine spray in minimizing discomfort during esophagogastroduodenoscopy (EGD).

Methods This is a retrospective study of patients with EGDs done from October 2022 to June 2023, in a regional hospital in Hong Kong. Patients with communication difficulties, previous gastrectomy or esophagectomy, aborted EGD, or allergies to lignocaine were excluded. The number of lignocaine spray puffs and the duration of which the patients were asked to swallow (ie sprayed duration) were categorized into four groups – group 1 patients received variable spray puffs and sprayed durations, group 2 received 10 puffs and variable sprayed durations, group 3 received 10 puffs and 1-minute sprayed durations. Patients in group 4 were asked to swallow immediately after 5 puffs were given, given 5 puffs more and asked to swallow after positioning, and lignocaine jelly coated endoscopes were used. Before the examination, patients' anxiety levels were scored on a scale of 1-5, with 4 and 5 regarded as significant anxiety. After the examination, their discomfort levels were scored on a scale of 1-5, with 4 and 5 regarded as significant discomfort. Subgroup analyses were done based on discomfort scores. A significant difference was considered when p-value < 0.05.

Results A total of 1,016 patients were included – 9.5 % group 1, 23.1 % group 2, 22.4 % group 3 and 45 % group 4. 63.3 % patients were female. Patients received 10, 8, and 6 puffs in 90.6 %, 6.0 % and 3.4 % respectively. Mean sprayed duration was 39.4 seconds (s.d. 18.4). Mean age was 58 years (s.d. 13.5). 59.5 %

patients had no prior EGDs done. 9.8mm and 9.9mm diameter endoscopes were used (69.4 % and 30.6 % cases respectively). 5.4mm nasoscopes were used in 20 cases (2 %). 14.1 % patients were significantly anxious before examination. The indications for EDGs were epigastric pain (74.3 %), anaemia (3.5 %), follow-up for ulcer (6.5 %), screening for malignancy (3.4 %), acid reflux (4.2 %) and others (8.0 %). The diagnosis of gastritis (56.2 %), normal examination (26.0 %), peptic ulcer disease (6.4 %), gastric polyp (6.2 %), and other (10.9 %) were made. 93.9 % EGDs included biopsy, 5.3 % polypectomy, 0.8 % without biopsy and 0.1 % with duodenal clipping. Mean endoscope duration was 210.3 seconds (s.d. 107.9). 27.1 % patients experienced significant discomfort.

Subgroup analysis showed patients with less lignocaine spray puffs, older, male, patients without significant anxiety and with diagnoses of gastritis were associated with less significant discomfort from EGDs. No association was observed between lignocaine sprayed durations and discomfort scores. Moreover, patient's older age (OR 0.98, 95 % CI 0.97 – 0.99), male sex (OR 0.01, 95 % CI 1.10 – 1.99), absence of significant anxiety (OR 2.151, 95 % CI 1.48 – 3.13) and a diagnosis of gastritis (OR 0.75, 95 % CI 0.57-0.99) were independent predictors for significant discomfort from EGD.

Conclusions In our review, more lignocaine spray puffs resulted in more significant discomfort from EGD. No difference was observed regarding sprayed duration.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Duodenal Lesions: Challenge Your Endoscopic Skills

25/04/2024, 08:30 – 09:30 **Room 10**

OP013 Safety of Duodenal Endoscopic Submucosal Dissection for Superficial Non-ampullary Duodenal Epithelial Tumor: A Single-center Study in the United States

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Aims Superficial non-ampullary duodenal epithelial tumors (SNADETs) are duodenal adenomas with malignant potential originating above the mucosal layer. Therefore, it is recommended that adenomas in the duodenum be resected in all cases. Currently, there are no guidelines in the U.S. addressing this; however, the ESGE recommends that all duodenal adenomas should be considered for endoscopic resection s as progression to invasive carcinoma is highly likely. Endoscopic submucosal dissection (ESD) for SNADETs is associated with a high rate of en bloc resection. However, the technique for duodenal ESD remains challenging and is rarely performed in the U.S. due to the thin duodenal wall and unstable scope maneuverability. To date, most SNADETs are removed by either endoscopic mucosal resection (EMR) or surgery as the feasibility and safety for duodenal ESD procedure have not been proven in this country. We report a single-center retrospective analysis of the outcomes of duodenal ESD for SNADET in the U.S.

Methods We performed a single tertiary center retrospective analysis and reviewed data of patients who underwent ESD for SNADETs between June 2018 and August 2023. Inclusion criteria were (i) non-ampullary tubular adenoma, (ii) tumors limited to the mucosa, and (iii) lesions considered challenging to resect with EMR. Baseline patient characteristics, histopathology of the resected lesion, adverse events, and recurrence rate were evaluated. The main outcome measures were the en bloc resection rate, complications, and recurrence rate.

Results A total of 30 ESD procedures in 24 patients were assessed. The lesions were mostly in second and third portion of duodenum, 70 % and 27 % respectively. The en bloc resection rate and R0 resection rate were both 53 %, and all en bloc resection lesions had R0 resection. Pathologists reported that all 30 lesions were identified as adenomas with no cancer lesions in the tumor. There were no cases of perforation associated with the procedure. Post-ESD bleeding were seen in 6 cases, 2 requiring re-hospitalization for repeat endoscopy. No surgical intervention was necessary for all cases. Delayed stenosis requiring dilation procedures were seen in 2 cases. There was no death related to the ESD procedure. The recurrence rates at the same lesion in 1 year was 14 %, and in total was 28 % to the last follow up date. [1]

Conclusions ESD represents a safe option for SNADETs in the U.S. At our center, ESD for SNADETs resulted in low complication rates and recurrence rates comparable to those of EMR. Further comparative studies are necessary to determine the most effective approach for the North American patient population.

Conflicts of interest Makoto Nishimura is a consultant for Boston Scientific and Olympus America. Mark A. Schattner is a consultant for Boston Scientific, Novo Nordisk, and Mirai Medical.

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OP014V Duodenal adenoma management: the underwater revolution

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DOI 10.1055/s-0044-1782713

Abstract Text A 58 years-old lady underwent esophagogastroduodenoscopy for dyspepsia and a 25mm duodenal lesion was detected in DII. At endoscopic evaluation (both white light and virtual chromoendoscopy) no signs of deep invasion were detected, however biopsies reported duodenal adenoma with high-grade dysplasia, so she was referred to our endoscopy unit for en-bloc resection. Considering the lesion size, an underwater endoscopic mucosectomy was used to obtain a successful en-bloc resection. A minor bleeding occurred at the end of the resection, successfully managed with monopolar forceps. A complete closure of the defect was achieved with 5 through the scope clips. The clinical course was uneventful and duodenal adenoma with high-grade dysplasia and free deep and lateral margins was confirmed.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/dff0e9c3-b2f7-4b4e-a416-d490f6f4918b/Uploads/13821_Duodenal_U%20EMR.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP015 Long-term outcomes of endoscopic submucosal dissection including papilla (ESDIP) for laterally growing duodenal epithelial tumors

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Endoscopy 2024; 56: S1–S503

Aims We have been actively performing endoscopic submucosal dissection (ESD) including papilla (ESDIP) for laterally growing duodenal epithelial tumors (DET) located on major papilla for en bloc resection aiming at R0 resection. We analyzed the mid- to long-term outcomes of ESDIP to identify the characteristics of lesions with higher therapeutic efficacy.

Methods 45 patients underwent ESDIP for DET located on major papilla between April 2011 and August 2023. Of the 45 patients, en bloc resection was achieved in 42 patients, one was converted to endoscopic papillectomy, one was aborted due to intraoperative perforation, one underwent pacreaticodeuodenectomy on postoperative day (POD) 5 due to delayed perforation. ESDIP was performed under general anesthesia or conscious sedation and endoscopic nasobiliary and nasopancreatic drainage tubes were inserted immediately after resection. The tubes were removed on POD 6 ± 3 (average ± SD), and the patients were discharged on POD 12 ± 5. 37 of the 42 patients underwent follow-up endoscopy, and 10 patients had residual or recurrent tumor at the major papillary site. Clinicopathological characteristics (lesion length diameter, macroscopic type, location of papilla in the lesion, histology and resection margin of bile-/pancreatic-duct) were compared between the recurrence group (RG) (10 cases) and the recurrence-free group (RFG) (27 cases) by univariate analysis. The location of papilla in the lesion was defined as "center" if the papilla was located within 1/2 of the lesion radius from the center of the lesion in the specimen, and "edge" otherwise.

Results The median observation period and the time to recurrence were 508 days [interquartile range (IQR), 215-1118] and 110 days [IQR, 63-833], respectively. Mean lesion length diameter in RG and RFG were 50 mm and 51 mm (p = 0.9), respectively. Macroscopic type (flat/protruded) in the RG and RFG were 8/2 and 21/6 (p = 0.9). Papilla location in the RG tended to be greater number of center (center/edge in RG and RFG were 7/3 and 10/17 (p = 0.08), respectively). There was no difference in histology (low grade adenoma (LGA)/high grade adenoma (HGA)/adenocarcinoma (AC)) between the groups. The proportion of negative bile-/pancreatic-ductal margin was higher in the RFG than in the RG (67 % (18/27) vs 10 % (1/10); (p = 0.003)). Therefore, analyzing the proportion of negative bile-/pancreatic-ductal margin in the 42 cases that were resected with en bloc, the proportion of negative margin was significantly higher in papilla locating on edge than on center (82 % vs 30 %; p < 0.001)). In addition, the proportion of the negative margin of LGA is higher than HGA and AC (90 % in LGA, 53 % in HGA and 40 % in AC (p = 0.04)).

Conclusions For LGA or tumor extending to papilla located at the edge of the tumor, the proportion of negative bile-/pancreatic-ductal margin in ESDIP was high, suggesting that the mid- to long-term outcome may be favorable.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP016 Management of recurrent or residual adenoma following resection of large (≥ 15mm) duodenal laterally spreading lesions

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DOI 10.1055/s-0044-1782715

Aims The rate of recurrent or residual adenoma (RRA) after endoscopic resection (ER) of large (≥ 15mm) duodenal lateral spreading lesions (D-LSLs) is reportedly 2.3-24.4 %. Accurate recognition and treatment of RRA in the duodenum is challenging and data regarding its management is lacking. We sought to analyze the outcomes of treatment of RRA after ER of D-LSLs in a prospective cohort.

Methods We conducted a retrospective analysis of prospectively collected patients referred for ER of sporadic, non-ampullary D-LSLs in an expert tissue resection center. Following ER, routine surveillance endoscopies were carried out at 3-6 months (SE1) and 12-18 months (SE2). RRA was defined as adenomatous tissue at detected at SE1 (early) or SE2 (late). Technique selection for treatment of RRA was at the discretion of the performing endoscopist. If RRA was confirmed histologically, endoscopic assessment was scheduled at 3-6 months and repeated until a bland scar was confirmed (RRA treatment success). RRA detected after treatment was completed at SE1 was termed persistent RRA. The primary outcome was to determine the rate of RRA treatment success.

Results Over 15 years, until February 2023, 171 D-LSLs in 166 patients underwent ER (54.2 % male, median age 70 years [interquartile range, IQR, 15], median lesion size 30mm [IQR 20]). Early recurrence was detected in 34 (19.9 %) cases. Most RRA were unifocal (80.6 %) and median recurrence size was 5mm (IQR 7). Endoscopic treatment of RRA was successfully performed in all cases. The techniques for RRA treatment included cold and hot snare polypectomy (n = 16 [47.1 %] and 9 [26.5 %] respectively) with adjunctive techniques employed in 47.1 % of cases (snare-tip soft coagulation [STSC] n = 12, cold-avulsion with STSC [CAST] n = 5). CAST alone was performed in 8 (23.5 %) cases. RRA treatment success was achieved in 96.4 % (n = 27/28) of cases eligible for follow-up. Median number of sessions to achieve successful adenoma clearance was 1 (IQR 1). 1 (3.6 %) patient with persistent RRA at the end of the study period is still undergoing treatment. Persistent RRA was associated with RRA size ≥ 10mm at SE1 (87.5 % vs 14.3 %, $p < 0.001$). Use of adjunctive techniques or CAST alone led to less cases of persistent RRA (6.3 % vs 33.3 %, $p = 0.09$). Late RRA, with clear SE1, occurred in 9.5 % (n = 8/90). All eligible cases received successful endoscopic treatment. Total RRA (late and early) treatment success rate was 97.2 % (n = 35/36). There were no adverse events related to RRA treatment and no patients required surgery for RRA

Conclusions RRA following ER of D-LSLs can be successfully and safely managed endoscopically in the vast majority (97.2 %) of cases. Treatment should be tailored to the individual case. The application of adjunctive techniques is often required.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP017V Successful endoscopic management of a duodenal-cutaneous fistula using a cardiac septal occluder device

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DOI 10.1055/s-0044-1782716

Abstract Text 47-year-old male with a history of alcoholic pancreatitis, pancreatic divisum, pancreatic-cutaneous fistula managed by stenting the dorsal duct, and walled-off necrosis managed by cystoduodenostomy/necrosectomy. Five months later, he had a retroperitoneal abscess extending to the groin, treated with I & D, and percutaneous drain.

He developed a duodenal-cutaneous fistula. Endoscopy showed a 14 mm fistula at D3. An atrial septal occluder (disk diameter 17 mm) was backloaded to a biliary sheath using pediatric forceps. The sheath was advanced through the fistula. The device was deployed by advancing the closed forceps out of the sheath. The forceps was disengaged after confirming a good position. The Percutaneous drain was removed and the fistula healed. Up till now (22 months after the procedure), multiple imagings demonstrated no leak.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/2a35df6b-d42c-4bab-9a1f-8bdeb9212243/Uploads/13821_CSO_ESGE%2024%20.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP018 Efficacy of texture and color enhancement imaging for the visibility of superficial non-ampullary duodenal epithelial tumors

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DOI 10.1055/s-0044-1782717

Aims The incidence of superficial non-ampullary duodenal epithelial tumor (SNADET) is increasing due to advances in endoscopic technology including image-enhanced endoscopies (IEEs). Consequently, endoscopic treatment for SNADET including endoscopic mucosal resection (EMR) or underwater EMR has also been on the rise. However, it remains unclear whether IEEs improve the visibility of SNADET compared to white light imaging (WLI). This study aims to investigate whether narrow-band imaging (NBI) and texture and color enhancement imaging (TXI) can improve SNADET visibility in insufflation and underwater condition.

Methods Patients with SNADET were enrolled in this prospective, multicenter, observational study. The study was conducted from July 2022 to March 2023, targeting lesions observed endoscopically prior to planned endoscopic treatments for SNADETs. The patients with recurrent lesions or with markers around the tumor were excluded. All lesions were evaluated using WLI, NBI, and TXI in CO2 insufflation and underwater condition. The EVIS X1 system with a GIF-H290Z or GIF-EZ1500 endoscope was used (courtesy of the system and endoscope from Olympus Co. Tokyo, Japan) in this study. The primary endpoint was the visibility score (VS) in each mode. The secondary endpoints were the color difference (ΔE^*) and the saturation difference (ΔC^*) between the tumor and background mucosa in each mode. [1–4]

Results We analyzed 50 lesions comprising 46 intramucosal adenocarcinomas and 4 adenomas. The location of lesions were 11 cases in the 1st portion, 37 cases in the 2nd portion, and 2 cases in the 3rd portion. The morphological types of the lesions were 4 cases of type 0-I, 25 cases of type 0-IIa, and 21 cases of type 0-IIc. Regarding patient characteristics, mean age was 65.1 ± 11.7 years and the 29 patients were male. Mean lesion size was 15.0 ± 14.9 mm. In CO2 insufflation, VS in TXI was significantly higher than that in WLI (2.7 ± 0.8 vs 2.5 ± 0.9, p = 0.002); however, no differences were observed between TXI and NBI (2.7 ± 0.8 vs 2.6 ± 0.7, p = 0.07). The VSs in underwater condition were significantly higher than those in CO2 insufflation condition in the three modes (WLI, 3.1 ± 0.6 vs. 2.5 ± 0.9, p < 0.001; NBI, 2.9 ± 0.7 vs. 2.6 ± 0.7, p < 0.001; TXI, 3.2 ± 0.5 vs. 2.7 ± 0.8, p < 0.001). No significant differences were observed in ΔE^* between TXI and WLI in both CO2 insufflation and underwater condition. In contrast, ΔC^* in TXI was significantly higher than that in WLI in CO2 insufflation (8.5 ± 6.0 vs 5.9 ± 3.9, p < 0.001) and underwater condition (9.2 ± 5.6 vs 6.6 ± 3.5, p < 0.001).

Conclusions TXI improves SNADET visibility compared with WLI, particularly during underwater observation. This factor can be attributed to the significant difference in the saturation between TXI and WLI. Our findings suggest the TXI may be useful for the detection and assessment of the lateral extent of SNADET.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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EUS guided therapies for gastric pathologies

25/04/2024, 08:30 – 09:30 **Room 8**

OP019 Endoscopic ultrasonography-guided gastroenterostomy for palliation of malignant gastric outlet obstruction: predictors of technical and clinical success

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Aims Malignant gastric outlet obstruction (GOO) is a debilitating condition that frequently develops in patients with gastric, duodenal, or pancreatic cancer. Recently, endoscopic ultrasonography-guided gastroenterostomy (EUS-GE) with a lumen-apposing metal stent (LAMS) was proposed as a promising alternative to surgical gastroenterostomy or duodenal stent placement as treatment for malignant GOO. EUS-GE is a complex procedure, with a risk of complications such as LAMS misdeployment, perforation, or peritonitis. Therefore, it is important to identify patient and disease characteristics that influence outcomes after EUS-GE to (de)select patients for this procedure. The present study evaluated considered risk factors for technical and clinical success, such as biliary obstruction, ascites, and peritoneal carcinomatosis.

Methods In eight Dutch academic and teaching hospitals, we retrospectively included all consecutive patients who underwent EUS-GE for malignant GOO in a palliative setting. Patients with benign causes of obstruction or who received curative treatment after EUS-GE were excluded. Primary outcomes were technical success, defined as adequate positioning of the LAMS, clinical success, defined as restoration of solid oral intake before last follow-up, and procedure related adverse events, defined as bleeding, perforation, peritonitis, LAMS misdeployment, migration, and obstruction. Parameters such as age, sex, etiology and location of obstruction, previous or concomitant biliary obstruction, ascites, and peritoneal carcinomatosis were evaluated in its relation to technical and clinical success.

Results 334 patients were screened for eligibility. 27 patients did not fulfil inclusion criteria. 307 patients (mean age 68.7 years, 50.1 % female) underwent EUS-GE between January 2018 and November 2023 and were included in the analysis. Most patients were diagnosed with pancreatic carcinoma (106/306,

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34.5 %) and had an obstruction located in the superior (D1) or descending (D2) duodenum (180/301, 60.0 %). Technical and clinical success were achieved in 90.2 % and 93.2 %, respectively. Procedure related adverse events were observed in 37 patients (12.1 %). With regards to technical success, location of obstruction in D3 or D4 was negatively associated with technical success (unadjusted OR 0.25, 95 % CI 0.07-0.81). None of the evaluated risk factors were associated with clinical success.

Conclusions The results of this large study indicate that patients with an obstruction located in the distal duodenum have a lower probability of technical success. Etiology of the obstruction was not associated with technical and clinical success. Although these results are based on retrospectively collected data and therefore should be interpreted cautiously, they contribute to a better understanding of which patients might profit most from EUS-GE.

Conflicts of interest FV is a consultant for Boston Scientific and the current chair of the Dutch Society for Gastroenterologists (NVMDL).LM is a consultant for Boston Scientific.MJB is a consultant for Boston Scientific, Cook Medical, and Pentax Medical; received support for industry-initiated studies from Boston Scientific and Cook Medical; and received support for investigator-initiated studies from Boston Scientific, Cook Medical, Pentax Medical, Mylan, Interscope, and ChiRhoStim.RvW is a consultant for Boston Scientific.PF is consultant for Cook Endoscopy and Olympus. RPV reports research grants from Boston Scientific and Prion Medical, performed as a consultant for Boston Scientific, and received speaker's fees from Mylan and Zambon.

OP020 Endoscopic ultrasound-guided gastroenterostomy with lumen-apposing metal stents: a large retrospective multicentric study of tertiary Italian centers

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Aims Endoscopic ultrasonography (EUS) combined with the development of specifically designed stents has significantly increased the indications for EUS guided interventional procedure as in case of patients needing the positioning of a lumen apposing metal stent (LAMS) to create an anastomosis between the stomach and the jejunum (EUS-GE). Moreover, in patients with altered anatomy due to previous surgery, such as Roux-en-Y reconstructions and bariatric surgery, further type of EUS-guided anastomosis permit to perform endoscopic retrograde cholagiopancreatography (ERCP) or to treat afferent limb syndrome, such as gastrogastrostomy (EUS-GG) or jejunojejunostomy (EUS-JJ). The aim of this study is to evaluate performances and safety of EUS-guided anastomosis (EUS-GE, EUS-GG and EUS-JJ) for any indication in a large multicenter study.

Methods This retrospective multicenter study included all consecutive patients treated with EUS-guided anastomoses (EUS-GE, EUS-GG and EUS-JJ) from January 2016 to March 2023 at eleven Italian tertiary centers. Indications for EUS-guided anastomosis were gastric outlet obstruction (GOO), afferent lymb syndrome or patients with altered anatomy and needs for ERCP. The main outcomes of interest were technical success and clinical success. Clinical success was defined as ability and type (liquid, creamy/soft or solid) of oral intake for EUS-GE, capability to perform ERCP for EUS-GG and resolution of jaundice for EUS-JJ. Secondary endpoints included rate of adverse events, LAMS patency and need for re-interventions.

Results 204 patients (mean [± SD] age 64,08 [± 13,97] years; 50 % males) were included. EUS-guided anastomosis were performed for GOO in 139 cases (68,1 %), for bilio-enteric anastomotic strictures or lithiasis in altered anatomy needing jejunal access in 44 (21,6 %) cases, for afferent limb syndrome in 14 cases (6,9 %) and for performing ERCP in altered anatomy in case of EUS-GG in 7 patients (3,4 %). EUS-GE were performed in 153 patients (75 %), EUS-JJ in 44 cases (21,6 %) and EUS-GG in 7 (3,4 %). The diameter of the LAMS were 15 mm in 57,9 % of cases, while 20 and 16 mm were used in 38,6 % and 3,5 % of cases, respectively. Overall, technical success was 94,6 % (CI 95 % 90.6-96.96 %) and clinical success was 93,3 % (CI 95 % 88.82-96.02 %). The total rate of AEs was 11,9 %. Ten (7,5 %) patients developed recurrence of GOO symptoms with a median time of 56 days (CI 95 % 11,47-415,78). The median follow-up was 85 days (CI 95 %, 69-115), and 51 patients died (25 %) with a median time to death of 67 days (41,05 to 136,96).

Conclusions EUS-guided anastomosis for connecting two sites of the upper GI tracts (EUS-GE, EUS-GG and EUS-JJ) are technically feasible procedures both in malignant and benign diseases, showing a high clinical success. The rate of AEs permits to consider EUS-guided anastomosis a safe procedure in expert hands.

Conflicts of interest None

OP021 Magnifying Endoscopy With Narrow Band Imaging Versus Endoscopic Ultrasonography for Prediction of Tumor Invasion Depth in Early Gastric Cancer: A Prospective Comparative Study

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DOI 10.1055/s-0044-1782720

Aims In early gastric cancer (EGC), magnifying endoscopy with narrow-band imaging (ME-NBI) can predict the invasion depth by yielding clear images of the surface and microvascular pattern of tumor. We aimed to compare the diagnostic accuracy of ME-NBI in T-staging of EGC compared with conventional endoscopic ultrasonography (EUS).

Methods In this prospective, randomized, non-inferiority trial, patients with EGC were randomly allocated in a 1:1 ratio to two parallel groups: ME-NBI (n = 81) or EUS (n = 84). The invasion depth in ME-NBI was determined based on microsurface patterns, microvascular patterns, and multicaliber vessels. Diagnostic performance for the invasion depth in each group was compared using the final histopathological diagnosis. A non-inferiority margin of -10 % for the invasion depth was assumed.

Results The diagnostic accuracy, specificity, positive predictive value, and negative predictive value for T1sm showed no statistically significant differences between ME-NBI and EUS (66.7 % versus 53.6 %, p = 0.0861; 64.5 % versus 58.7 %, p = 0.5060; 38.9 % versus 23.5 %, p = 0.1665; and 88.9 % versus 74.0 %, p = 0.0645); however, the sensitivity was significantly higher in ME-NBI (73.7 % versus 38.1 %, p = 0.0239). In the non-inferiority test, ME-NBI revealed non-inferiority to EUS in predicting invasion depth. Additionally, the accuracy of ME-NBI was significantly higher than that of EUS in tumors > 20 mm, depressed tumors, and T1sm1 tumors (73.2 % versus 48.7 %, p = 0.038; 70.7 % versus 46.3 %, p = 0.043; 71.4 % versus 12.5 %, p = 0.041).

Conclusions The diagnostic capability of ME-NBI was comparable to that of EUS. ME-NBI could be a useful alternative modality for discriminating submucosal invasion of EGC, particularly in large, depressed or T1sm1 tumors.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP022V EUS-guided gastroenterostomy to treat obstructive gastric twist after laparoscopic sleeve gastrectomy

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Abstract Text A 69-years old woman underwent sleeve gastrectomy. One month later, she presented symptoms of gastric outlet obstruction. Endoscopy showed a peptic oesophagitis associated with a mid-gastric twist confirmed by CT-Scan. Three sessions of endoscopic dilatation were performed without clinical improvement. An EUS-GE was proposed to "bypass" the mid-gastric twist. EUS-GE was perfomed using an oroenteric catheter combined with wireless endoscopy simplified technique (WEST). No adverse events were reported. Clinical improvement was reported and confirmed by radiology and endoscopy at one and three months. The improved technical and clinical success of EUS-GE has allowed it to be used in case of benign GOO due to gastric twist. Moreover, in this case, EUS-GE avoided surgical conversion to RYGB [1–5].

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/09826672-d7b5-4fc1-a644-2884d34bbeaf/Uploads/13821_EUSEGGastrictwistESGEshort.mp4

Conflicts of interest Olympus EuropePrion MedicalBraun Medical

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OP023 EUS gastroenterostomy (EUS-GE) in the treatment of gastric outlet obstruction in patients with acute necrotizing pancreatitis

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Aims Severe and necrotizing acute pancreatitis can lead to symptomatic gastric outlet stenosis due to external compression. In addition, intestinal motility can be reduced in severe pancreatitis. These patients may require a gastric decompression tube and jejunal (or parenteral) nutrition. Gastric outlet stenosis can be treated using endosonographic gastroenterostomy (EUS-GE), which has not yet been evaluted in the setting of acute pancreatitis.

Methods We conducted a retrospective multicenter trial at seven international centers. Patients with acute necrotizing pancreatitis who underwent EUS-GE due to symptoms of delayed gastric emptying were identified and included in the study.

Results Thirty-eight patients were identified. They had a median age of 55 years (27 – 76) and 14 were female (36.8 %). Etiology of pancreatitis was as follows: biliary: n = 14, alcoholic: n = 13, post-ERCP: n = 3, other: n = 8. According to the Atlanta classification, 9 cases were mild, 12 were moderate and 17 cases were severe. Median time between onset of pancreatitis and EUS-GE was 54 days. In three cases (7.9 %), EUS-GE could not be performed because the distance between stomach and small intestine was too large (n = 2) or no suitable site for puncturing could be identified (n = 1). In the remaining 35 cases EUS-GE was technically successful. The most common technique used, was the so-called direct puncture technique (without guidewire) in n = 25 cases (65.8 %). In all cases, a LAMS with an electrocautery-enhanced delivery device was used (HotAxios, Boston Scientific). All stents had a length of 10 mm and a diameter of 10 mm (n = 1), 15 mm (n = 17), or 20 mm (n = 17). Thirty-four patients (89.5 %) showed improvement in the Gastric Outlet Obstruction Scoring System (GOOSS). Before the intervention, the median value was 0, afterward it was 2. There were no peri-interventional complications. Post-interventionally, gastrocolic fistula occurred in one case (2.6 %) due to stent erosion of the colon. This could be treated endoscopically. Stent revision was necessary in two cases; one balloon dilatation and one stent exchange each. In another case, persistent duodenal stenosis was treated surgically. In 18 cases, the LAMS was subsequently removed endoscopically. These patients did not experience any recurrence of symptoms.

Conclusions EUS-GE for the treatment of gastric emptying disorder in necrotizing pancreatitis represents a promising alternative to jejunal or parenteral nutrition combined with a gastric decompression tube.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP024 Is EUS-guided angioembolisation a comparable alternative to Balloon-occluded Retrograde Transvenous Obliteration (BRTO) for the management of gastric varices with significant portosystemic shunts: A multicenter tertiary-care experience

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Aims Gastric fundal varices (GV) are conventionally managed with endoscopic glue injection, but can re-bleed, specifically in the setting of significant portosystemic shunts (PSS). Balloon-occluded Retrograde Transvenous Obliteration (BRTO) is a viable option for managing such cases. While endoscopic ultrasound (EUS) guided therapy using combination of coils and glue is a relatively recent modality [1], sparse data exist on the comparison between the two modalities with respect to safety and efficacy on follow-up. Hence this study was designed to compare these two modalities for management of GV with significant PSS.

Methods This multicenter study included patients of GV having significant PSS from 3 tertiary-care academic centers, presenting with bleeding or requiring secondary prophylaxis. Baseline imaging and EUS was performed to assess the size of the varices and the type and size of the shunt. Patients were divided into

2 arms: EUS-guided and BRTO depending on the modality used. Patients were followed up in the post procedure for adverse events. Procedural details such as amount of glue, number of coils used, obliteration rates, number of sessions required for obliteration were documented. Follow-up data collected included obliteration at 4 weeks, bleeding after index procedure, and need for re-intervention.

Results Of the 107 patients (male 83, 77.6 %; mean age- 52.59 ± 12.5 years) included in the study, 53 underwent EUS-guided therapy while BRTO was done in 54 patients. GOV2 was the most common GV type (n = 65;60.7 %) while the commonest shunt type was gastro-renal shunts (n = 80;74.8 %). At baseline, the type of presentation and etiology of liver disease were similar between the two arms. While the EUS-arm had significantly larger-sized GV (23.92 ± 5.9 vs 19.37 ± 6.5 mm; p < 0.001), BRTO-arm had larger shunts (14 vs 12 mm; p = 0.014).

The technical success, immediate obliteration rates, and obliteration rate at 4 weeks were similar between the two arms. However, the overall adverse events rates were significantly higher in the BRTO-arm (38.9 % vs 11.3 %; p = 0.001). Specifically, worsening of ascites (22.2 % vs 1.9 %;p = 0.002) and sepsis (13.0 % vs 0 %; p = 0.013) were noted significantly in the BRTO-arm. Worsening of esophageal varices were also noted more in the BRTO-arm (24.1 % vs 0 %; p < 0.0001). Over a median follow-up of 704 days, bleeding episodes after index procedure and re-intervention requirements for GV were similar between the two arms. On multivariate analysis, size of the shunt (p = 0.012) and size of GV (p = 0.006) were significant predictors for achieving complete obliteration at 4-weeks even after adjusting for age, etiology of the disease, the CTP class and the type of procedure (EUS vs. BRTO).

Conclusions EUS-guided therapy is a safer alternative with comparable efficacy compared to BRTO for the management of GV with significant PSS. Size of the shunt and GV are key factors governing complete obliteration variceal obliteration on follow-up.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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Post-ERCP pancreatitis: What's new on prevention and management

25/04/2024, 10:00 – 11:00 **Room 11**

OP025 Comparing Plastic vs Biodegradable Pancreatic Stents for the Prevention of Post-Endoscopic Retrograde Cholangiopancreatography Pancreatitis: Preliminary Results of A Single-center Randomized Controlled Trial

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Aims ERCP stands as the primary choice for treating pancreatobiliary disorders. Among its complications, post-ERCP pancreatitis (PEP) is the most frequent, with a prevalence ranging from 4-10 %, and reaching up to 15 % in high-risk patients. To mitigate the hydrostatic pressure contributing to PEP in high-risk patients, the insertion of a pancreatic duct stent is considered a preventive measure. The available options for pancreatic duct stenting include plastic pancreatic stents (PPS) and biodegradable stents (BDS) placement; However, currently, there is no available data on their efficacy, nor the best setting for choosing between the two. Thus, our aim is to compare the effectiveness of PPS vs BDS for the preventing PEP. [1–4]

Methods A single-center, prospective, randomized controlled trial (RCT) in patients with biliary tract disease requiring ERCP was conducted from January/22 to June/23. Subjects ≥ 18 years-old, with a non-manipulated pancreatic papilla were included. Patients not requiring or failed stenting, hemodynamically unstable, pregnant or nursing, at risk of fluid overload, cholangitis, sepsis, acute/flared-up chronic pancreatitis, recent biliary tract manipulation, uncontrolled coagulopathy, kidney or liver failure or comorbidities impacting the cardiac-risk assessment were excluded. During ERCP, PPS (5Fx4cm) or BDS (6Fx4cm or 6Fx6cm) were randomly selected and placed. At three-days and five-weeks post-procedure, the patients required follow-up assessment to rule-out PEP based on physical examination findings, laboratory tests (amylase, lipase, PCR, WBC and total bilirubin), abdominal ultrasound, and history of any post-ERCP hospitalization.

Results Ninety-seven patients were enrolled (54 BDS and 43 PPS), with a median age of 53 years, 63.9 % females. The main indication for ERCP was choledocholithiasis (89.7 %). The median time for biliary cannulation was 5 minutes, requiring sphincterotomies in 90/97 patients. Additionally, from the 43/97 PPS cohort, biliary stents simultaneous placement was required in 13/43 (30.2 %), compared to 4/54 from BDS cohort (7.4 %; $p = .0076$). It was shown that median post-ERCP total bilirubin was significantly lower in both PPS (1.04 vs 0.96; $p = .0338$) and BDS cohort (1.04 vs 0.52 mg/dL; $p = .0044$). The same was observed for median C-reactive protein in PPS (7.03 vs 4.10 mg/dL;$p = .0338$) and BDS (11.2 vs 5.1 mg/dL; $p = .01$). Median post-ERCP lipase was significantly higher in both PPS (47 vs 54.8 mg/dL; $p = .05$) and BDS (48.5 vs 110 mg/dL; $p = .0134$). PEP was noticed in 8/97 (8.2 %), with no significant difference in prevention when PPS and BDS were compared (14 % vs 3.7 %; $p = .133$).

Conclusions A lower but non-significant rate of PEP prevention using BDS vs PPS was noticed.

Conflicts of interest Carlos Robles-Medranda is a key opinion leader and consultant for Pentax Medical, Steris, Medtronic, Motus, Micro-tech, G-Tech Medical Supply, CREO Medical, EndoSound, and mdconsgroup. All other authors declare no conflicts of interest.

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OP026 The efficacy of intravenous parecoxib with standard intravenous fluid hydration comparing with standard intravenous fluid hydration for prevention post ERCP pancreatitis: A randomized controlled trial

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Aims Post endoscopic retrograde cholangiopancreatography (ERCP) pancreatitis is the crucial complications affect about 3.5-30 % depend on patients and procedure factors. There are many well established preventive strategies such as the rectal NSAIDs, aggressive intravenous hydration and pancreatic stent placement. Unfortunately the rectal NSAIDs is not available in many countries including Thailand. We aim to evaluation the efficacy of intravenous parecoxib to incidence of post ERCP pancreatitis, hyperamylasemia and clinical significant post ERCP abdominal pain.

Methods This study performed prospective, double blind, randomized controlled trial in patients who underwent first experienced therapeutic ERCP procedure (native papilla). This report is preliminary data, which was performed between January 2022 and October 2023. The ERCP were performed according to indications and the discretion of experienced endoscopists; data pertaining to patient's characteristics, serum bilirubin level, procedural technique, cannulation time, type of Ampulla of Vater and endoscopic risk factors were obtained. The incidence of Post ERCP pancreatitis, hyperamylasemia and abdominal pain were compared between the parecoxib plus standard IV hydration and standard IV hydration group.

Results A total of 85 patients (Parecoxib, n = 43; Control, n = 42) underwent therapeutic ERCP. The mean age was 64 (54,71) years and 44 (51.8 %) were male. The American Society of Anesthesiologists classification, presence of comorbid disease, and initial laboratory results were not significantly different between the two groups. The indication for ERCP was common bile duct stone (55.3 %) and periampullary cancer (27.1 %) respectively. Most of them comprise in a single risk factor account for 43.5 % in both groups. The incidence of post-ERCP pancreatitis was 4.7 % in the parecoxib group while 11.9 % in the standard IV group (p = 0.265) and post-ERCP abdominal pain at 4 hours and 24 hours were 34.9 % and 9.3 % in parecoxib group which was significant lesser than 66.7 % and 24.7 % (p = 0.002) in the control group. Only one patient developed severe necrotizing pancreatitis and underwent necrosectomy.

Conclusions The intravenous parecoxib plus standard hydration seem to prevent post ERCP pancreatitis compare to the standard hydration. Moreover, the intravenous parecoxib illustrated the clearly benefit in post-procedure related abdominal pain in both 4 and 24 hours respectively without serious adverse events.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP027 Peripapillary Epinephrine Injection vs Rectal Indomethacin in Preventing Post-ERCP Pancreatitis: A randomized controlled trial

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DOI 10.1055/s-0044-1782726

Aims Post-ERCP pancreatitis (PEP) is still the most common major complication of ERCP despite technical advancements and meticulous patient selection. The efficacy of the existing techniques is conflicting. We aimed to compare the efficacy of peripapillary epinephrine injection and rectal indomethacin in the prevention of PEP. [1–2]

Methods Between January 2023 and August 2023, a total of 378 patients were enrolled. We calculated that 189 patients in each group (rectal indomethacin – Group A and peripapillary epinephrine injection – Group B) would suffice based on a previous study by our group (α:0.05, 80 % power). Patients with a non-naive papillae, ampulla of Vater cancer, biliary pancreatitis, altered anatomy, pregnancy, and pancreatic diseases such as chronic pancreatitis were excluded. Patients were assigned in a 1:1 simple randomized fashion. The primary outcome was the rate of PEP. Secondary outcomes were the rate of hyperamylasemia and rates of other adverse events

Results Demographic characteristics, indications, and procedure-related risk factors were similar between the groups. The overall success rate of selective cannulation was 99.2 % in Group A and 99.3 % in Group B (p = 0.997). PEP occurred in 9 of the 189 (4.8 %) patients in Group A and 2 of the 189 (0.5 %) patients in Group B. All cases were mild and managed conservatively. The rate of post-procedure 4th-hour hyperamylasemia was significantly higher in Group A (19 % vs 5 %, p < 0.001). Postsphincterotomy-related bleeding developed in 5 patients in Group A (2.64 %) but none of the patients had bleeding in Group B. Stapfer type-II perforation occurred in two patients in each group. No major cardiac adverse events-related to epinephrine injection were detected in Group B.

Conclusions Compared to rectal indomethacin, peripapillary epinephrine injection significantly reduced the incidence of PEP, post-procedure hyperamylasemia, and sphincterotomy-related bleeding

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP028 Do prophylactically placed pancreatic stents need to be removed – a retrospective chart review

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DOI 10.1055/s-0044-1782727

Aims Prophylactic pancreatic stenting (PPS) is recommended by guidelines to reduce the risk of post ERCP pancreatitis after accidental pancreatic canulation during ERC. There is no clear guidance and evidence on the optimal time frame and if PPS need be removed at all after ERCP. While some centers do not actively remove PPS, some recommend removal after 5-14 days.

Methods A retrospective chart review on ERCs performed between 2003 and 2023 was performed with the internal guidance at the center recommending removal after two weeks by gastroscopy. The rate of PPS lost to follow up and presence of PPS on endoscopy as well as the time frame to removal was assessed

Results Between 2001 and 2023 3081 ERCPs were performed in a tertiary care center in Switzerland. Pancreatic stent placement was performed in 100 cases, n = 84 prophylactic and n = 16 therapeutic, mean patient age 61 + /-23 yrs, 56 female. Monopigtails (n = 81) were used in a majority of prophylactic pancreatic stent (PPS) placements. In a majority (77/84) of PPS 5 French stents up to a maximum length of 8cm were used. n = 22/84 (26 %) PPS were lost to follow up with no reported complications. In 41/84 (49 %) cases the stent was removed by gastroscopy within a mean 51 days. In five cases the PPS was still in place after a period of more than 100 days (103-221d) with 85 % in situ and retrieved within 40 days. In 21/84 (25 %) cases the stent had passed on control endoscopy. In three cases the PPS had already passed after a week with passing times ranging between 20-475 days in the rest of cases. There was no correlation between indication (Choledocholithiasis or biliary tract stenting in the presence of malignancy with regard to retention of PPS.

Conclusions A large proportion of PPS is lost to follow without complications. About 50 % of placed PPS are in situ after 40 days regardless of ERC indication. 25 % of PPS pass without intervention. The necessity of removal of PPS needs to be evaluated in larger prospective studies taking into account different pancreatic stent types and protocols to provide clear guidance on the topic.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP029 Efficacy of TOcilizumab in Mitigating Inflammatory Cascade in Patients with Predicted Severe Acute Pancreatitis: A Multicenter Randomized, Double-Blind, Placebo-Controlled Trial

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Aims Progression of acute pancreatitis to moderate to severe disease was associated with as high as 42 % mortality rate. Despite this debilitating outcome, there is currently no specific pharmacotherapy for the disease. With better understanding of its pathogenesis, promising pharmacological agents targeting the key detrimental pro-inflammatory cytokines, such as interleukine(IL)-6, have been developed. Tocilizumab, a humanized anti-human IL-6R antibody has been proven to be effective in preventing catastrophic complications of acute pancreatitis in animal studies by inhibiting IL-6 receptor as evidenced by an increase in free IL-6 level. This study aimed to evaluate the efficacy of Tocilizumab in mitigating initial inflammatory cascade in patients with predicted severe acute pancreatitis using pro-inflammatory cytokine as surrogate markers.

Methods Adult patients who were diagnosed with acute pancreatitis and were predicted to develop severe pancreatitis, defined as BISAP score ≥ 3 or Modified Marshall score ≥ 2, between January 2021 and October 2023 were randomly assigned to two groups within 12 hours of presentation. Tocilizumab group received Tocilizumab 4 mg/kg intravenous and standard of care. The placebo group received normal saline intravenous and standard of care. IL-6, CRP, and procalcitonin were collected longitudinally on the date of admission, at 24, and 48-hour.

Results 20 patients with a mean age of 59.5 ± 18.5 years were enrolled. 10 patients were randomized to the Tocilizumab group and 10 patients were to the placebo group. Baseline characteristic of the patients were not different between two groups. Alcohol and gallstone were the majority of the etiology of pancreatitis in both groups (45 % and 40 %, respectively). There were no statistical differences in the duration of the onset of the symptom onset (16.6 ± 14.3 vs 16.4 ± 14.1 hours; p = 0.98), the BISAP score (2.6 ± 0.7 vs 2.3 ± 0.8; p = 0.39) or the modified Marshall score (2.7 ± 1.8 vs 2.7 ± 1.9; p = 1.00) between the Tocilizumab and placebo groups, respectively. At 48 hours, there was a significantly higher reduction in CRP (-41.9 % vs + 31.7 %; p < 0.01) and increase in IL-6 level (+ 74.2 % vs -44.75; p < 0.01) in Tocilizumab group compared to placebo, respectively. Although there was a trend toward an increase in procalcitonin level, but there was no statistically difference between both group at 48 hours (12.89 + 25.71 vs 11.24 ± 18.47; p = 0.88). There was no adverse event from medication in both groups [1, 2].

Conclusions Tocilizumab can reduce inflammatory cytokine response in patients with predicted severe pancreatitis at 48 hours, particularly CRP, when administered within the first 12 hours of presentation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP030 Development of a risk scoring system for the prediction of acute pancreatitis after ERCP: results of a prospective multicenter study

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DOI 10.1055/s-0044-1782729

Aims Acute pancreatitis represents the most frequently reported adverse event following ERCP. Identifying patients at higher risk may help to prevent the occurrence of this complication. Aim of this study was to investigate the incidence and factors associated to post-ERCP pancreatitis (PEP) and to provide a risk scoring system.

Methods Cross-sectional prospective study was conducted on adult patients undergoing ERCP among 16 Italian hospitals between May 2019 and April 2022. We collected detailed sociodemographic, clinical and endoscope-related information, including pre-, intra- and post-exam variables.The main outcome was PEP. A multivariable logistic regression model was derived based on (i) the results of univariable logistic regression analyses, including as adjustments those variables being significant at p-value < 0.05, and (ii) variables with biological plausibility. Therefore, the variables sex, age and study center were included *a priori*, because of their relevance. To describe the risk of PEP qualitatively and quantitatively in this population, we built a score (0-8 points) assigning a weight (w) to the principal pre-procedural factors found to be associated with this outcome, namely age < 70 (w = 1), female sex (w = 1.5), non-supine position during the exam (w = 2) and naïve papilla (w = 3.5). We established a 4-level score with low risk being 0-2.9, 3-4.9 low-medium risk, 5-6.9 medium-high risk, and 7-8 high risk.

Results A total of 1961 consecutive patients were enrolled, and 157 cases of PEP (8 %; 95 % CI 6.8-9.2) were observed. The analysis included 1673 individuals, after excluding missing values. PEP was significantly associated to female sex (OR = 1.67, 95 % CI = 1.16-2.40), age > = 70 (OR = 0.66, 95 % CI = 0.45-0.95), supine position (OR = 0.46, 95 % CI = 0.23-0.93), history of acute pancreatitis (OR = 2.45, 95 % CI = 1.42-4.24), naïve papilla (OR = 3.18, 95 % CI = 1.68-6.04), Wirsung cannulation (OR = 1.90, 95 % CI = 1.25-2.88) and rescue method of cannulation (OR = 1.84, 95 % CI = 1.14-2.95). The largest proportion of the participants were at medium-high risk (39.6 %), followed by low-medium (24.9 %), high (22.4 %) and low-risk (13.1 %). When considering the risk score, we found a 50 % increasing risk of PEP by 1 level of increase in the score (OR = 1.51,95 % CI = 1.19-1.93). Considering low risk level as reference (predicted incidence = 4.0 %;), each increased risk score level predicted the risk of PEP as follows: low-medium risk OR = 1.97 (95 % CI = 0.83-4.62) and predicted incidence of 6.5 %; medium-high risk OR = 3.10, (95 % CI = 1.35-7.10), predicted incidence = 10.7 %, and, finally, high-risk OR = 4.07 (95 % CI = 1.69-9.83), predicted incidence = 12.8 %.

Conclusions In this multicenter, large, prospective study, we identified factors associated with the risk of PEP and derived a risk scoring system based on pre-procedural factors.This scoring system may help the clinician to correctly stratify the risk of the procedure and adequately inform the patient.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Optical diagnosis and advanced imaging in lower GI endoscopy

25/04/2024, 10:00 – 11:00 Room 8

OP043 CRIS: A Novel Tool Described Using Only Three Self-Explanatory Words Performs Similarly To JNET Amongst Western Experts In The Detection Of Cancer And Determination Of Correct Treatment In Large Non-Pedunculated Colorectal Polyps

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Aims The JNET classification can be used to predict large non-pedunculated colorectal polyp (LNPCP) histology and presence/depth of submucosal invasion (SMI). However, Japanese endoscopist accuracies > 84 % have not been replicated amongst Western experts; for example, in a recent study of European experts JNET accuracy was 55 %. Furthermore, European guidelines suggest both low-grade dysplasia (LGD) and high-grade dysplasia (HGD) can be treated using endoscopic mucosal resection, thus there is no clinical consequence to interpreting HGD as JNET 2A. We aimed to compare JNET with CRIS (Colorectal Regular-Irregular Score) for LNPCP histology prediction amongst Western experts using both the original JNET interpretation and a clinically relevant approach.

Methods 32 images of flat LNPCPs under NBI were obtained with matched histopathology data. Each image was rated (anonymous online survey) using JNET and then again (order randomised) using CRIS, a novel score which asks whether the most disordered vascular pattern visible is 'regular(= CRIS-R), regularly-irregular(= CRIS-RI) or completely-irregular(= CRIS-I)'. No further explanation of JNET or CRIS was offered. Accuracy of JNET and CRIS vs. histopathology was analysed using the original JNET interpretation (JNET 1/2A and CRIS-R = LGD) and a clinically relevant approach (JNET1/2A and CRIS-R can also = HGD). JNET2B & CRIS-RI were matched to HGD & superficial SMI and JNET3 & CRIS-I to deep SMI. Correct treatment was defined as pEMR for LGD or HGD, en-bloc EMR/ESD for HGD or superficial SMI and surgery for deep SMI.

Results 12 experts rated 32 images. 8 low-quality images were excluded from the analysis. The overall accuracy of JNET vs. histopathology using the original interpretation was 69.7 % (95 % confidence interval [95 % CI] 46.0-89.3 %) and CRIS 69.6 % (95 % CI 45.3-88.7 %). Expert agreement was similar between JNET (91.3 % [95 % CI 82.8-98.3 %] and CRIS (88.5 % [95 % CI 78.2-97.3 %]) with K = 0.64 (substantial) for JNET and K = 0.57 (moderate) for CRIS. Correct treatment was determined in 144/288 (50.0 %) observations using JNET and 144 (50.0 %) using CRIS. The overall accuracy of JNET vs. histopathology using the clinically relevant approach was 73.9 % (95 % CI 46.0-89.3 %) vs. CRIS 72.3 % (95 % CI 45.3-88.7 %). Similarly the accuracy for JNET 2b and CRIS-RI was 51.7 % (95 % CI 45.9-57.4 %) and 51.0 % (45.2-56.7 %). The accuracy, sensitivity and specificity of JNET 1/2A changed by 13.2 %, -8.0 % and 38.0 % and CRIS-R by 8.3 %, -8.2 % and 35.5 %. Correct treatment determination increased by 29.5 % to 79.5 % for JNET and by 27.1 % to 77.1 % for CRIS. [1–4]

Conclusions High rates of accuracy can be obtained by Western experts using JNET to predict histology of colorectal LNPCPs. Similar accuracy is obtained using CRIS, a novel score named and described by 3 self-explanatory words suggesting JNET may be able to be simplified for non-experts. Importantly the specificity of both systems can be increased by framing their interpretation versus. histology in a clinically relevant fashion.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP044 A novel colonoscope with extra-wide field of view optics increases polyp detection rates compared to the standard instrument: Results from a prospective model-based trial

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Aims Colonoscopy is considered the gold standard for colorectal cancer screening but lesions can be missed, resulting in interval cancers in a significant number of patients. Polyps hidden behind haustral folds or in tight flexures are particularly difficult to visualize with current forward-viewing instruments. This prospective study evaluated lesion detection rate and performance of a novel colonoscope with 230-degree (partially retrograde) extra-wide field of view compared to the standard 170-degree colonoscope in a colon model.

Methods A 3D-printed silicon model of a colon was specifically commissioned for this study from Lazarus 3D, Albany, OR. The model has a length of 62cm, simulates ascending, transverse and descending colon segments, and includes 12 sessile polyps between 4mm and 7.5mm in size, placed throughout the colon, with several polyps located on the proximal side of haustral folds. Endoscopist were recruited during a GI conference and instructed to perform back-to-back examinations of the colon model, first inserting a standard colonoscope (SC; EC38-i20cL, 170- degree forward-viewing optics, Pentax Medical) immediately followed by a second exam using the new 230-degree extra-wide field of view colonoscope (EFOV; EC38-i20cLW, Pentax Medical). Participants were instructed to identify polyps during a timed 4-minute withdrawal and to then place a snare around the most distal polyp. A standardized survey was used to record the operator's impression of endoscope/snare handling, optical performance and maneuverability, using a 5-point Likert scale for all assessments.

Results Twenty-nine experienced endoscopists participated in this trial; 90 % of them had performed > 1000 colonoscopies during their careers. Using the standard colonoscope, an average of 5.3 polyps were detected, compared to 9.6 polyps when using the EFOV colonoscope ($p < 0.001$). The median difference in the number of polyps detected by the same endoscopist between SC and EFOV was 4; range 1-8 (p-value of Wilcoxon signed-rank test: < 0.001). Five of

29 (17.2 %) operators detected all 12 polyps with the EFOV scope, while no operator detected all polyps with the SC. The success rate of placing a snare was 100 % for both endoscopes with similar timings (mean of 14 sec vs 15 sec for SC and EFOV, respectively). The handling, optical performance and maneuverability of the EFOV colonoscope compared to the SC was rated as equally good or better by all endoscopists.

Conclusions Use of a novel colonoscope with a 230-degree (partially retrograde) extra-wide field of view resulted in a significant improvement in polyp detection rates compared to a standard colonoscope in this non-randomized model-based trial, with favorable performance and usability ratings for the EFOV instrument. Clinical studies are required to confirm these encouraging preliminary results.

Conflicts of interest Nowak T: Consultancy fees Pentax Medical, AnX Robotics GmbH

OP045 Real-time polyp size measurement during colonoscopy using a virtual scale: variability and systematic differences

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Aims Colorectal polyp size is important for risk stratification and clinical decision-making regarding polypectomy technique and surveillance intervals. However, polyp size measurement is known to be prone to inter-observer variability and a standardized measurement method is lacking. Recently, a virtual scale (VS) function has been developed that facilitates polyp size measurement through the projection of a virtual measurement scale on the monitor screen during live endoscopy. This study aimed to compare VS measurements to other measurement methods in terms of variability and systematic differences. Moreover, clinical feasibility of the VS was evaluated in terms of measurement success rate and duration.

Methods We conducted a prospective study comprising 120 polyps. Polyp size was measured in real-time during colonoscopy using three methods: (1) visual estimation (without aid of any tools), (2) 9-mm polypectomy snare as visual reference and (3) VS as visual reference. All measurements were videotaped (10-15 seconds) and incorporated into an online survey environment. Subsequently, video extracts of all measurements were presented to a group of eight expert endoscopists and nine endoscopy fellows in training. All endoscopists estimated the size of each included polyp based on the three measurement methods (360 measurements per endoscopist) in random order. Primary outcomes concerned variability in polyp size measurements for, as well as systematic differences between, the different measurement methods as estimated using mixed linear model analyses. Secondary outcomes were clinical measurement success rate, defined as the percentage of successful measurements within 180 seconds, and duration of VS measurements.

Results Variability in polyp size measurements was significantly lower ($p < 0.050$) for VS measurements compared to visual and snare-aided measurements for both endoscopy experts and endoscopy fellows in training. Lower variability for VS measurements led to more uniform assignment of polyps to clinically relevant size categories (i.e. < 5 mm, 6-9 mm, > 10 mm) compared to visual and snare-aided measurements for both experts (69.2 % vs. 55.0 % vs. 59.2 %) and fellows (66.7 % vs. 50.8 % vs. 46.7 %). Systematic differences between VS polyp size measurements and other methods were < 0.5 mm. Clinical success rate of VS measurements was 95.0 %. Median VS measurement duration was 17 seconds (IQR 8, 33). Median measurement duration significantly decreased when comparing the first to the last 30 included polyps (17 [IQR 9-33] vs. 12 [IQR 5-23] seconds, $p = 0.048$).

Conclusions Use of a VS for polyp size measurement leads to more uniform polyp sizing by individual endoscopists compared to visual and snare-aided polyp size measurement. Moreover, no clinically relevant systematic differences were identified. Hence, the VS might serve as a more robust and objective tool for polyp size measurement compared to current methods and might possibly aid in improving clinical decision-making processes involving polyp size. However, physicians should remain aware that VS measurement is not feasible for all polyps.

Conflicts of interest BB received speakers fee from Olympus, Tillotts Pharma AG and Ovesco Endoscopy AG.PF received research support from Boston Scientific and a consulting fee from Olympus and Cook Endoscopy.HB received speakers fee from Medtronic.JG served as a speaker for Dr. Falk, GlaxoSmithKline and Janssen-Cilag.DR received a research grant from AbbVie (outside the submitted work) and served as a member of the Data Safety Monitoring Board of Vivoryon Therapeutics.ED received a research grant from Fujifilm, a consulting fee for medical advice from Olympus, Fujifilm, GI Supply, PAION, Ambu and CPP-FAP and a speakers fee from Olympus, Roche, GI Supply, Norgine, Fujifilm and IPSEN.

OP046 Is additional acetic acid chromoendoscopy effective for prediction of histology of submucosal invasion depth in colonic neoplasms?

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Aims Acetic acid visualizes the detailed surface of the colonic polyps when combined with image-enhanced endoscopy (IEE). We have reported its ability to enhance pit pattern as an acetoelectronic chromoendoscopy (AEC). Although AEC is expected to be helpful in the pretreatment inspection of colonic neoplasms, including the degree of submucosal invasion, the efficacy of AEC has not been thoroughly investigated. Our aim is to validate the diagnostic value of adding AEC to conventional observation (CO) by physicians with various background experiences in pretreatment assessment of colonic neoplasms, including submucosal invasive lesions.

Methods Endoscopic still images of 30 colonic neoplastic lesions were collected between April 2020 and July 2023 and were assessed on pretreatment diagnosis by nine endoscopists: three Western expert endoscopists (WE) with a lot of experience in endoscopic treatment but with few experiences of magnifying pit pattern observation using Christal Violet (CV), three Japanese expert endoscopists (JE) with a lot of experience with both treatment and observation using CV, and three residents in training (RT) with few experience of both of them. Of 30 lesions, 63 % (19/30) were lesions indicated for endoscopic resection (LER) (3 low-grade dysplasia (10 %), 13 high-grade dysplasia (43 %), 3 T1a (10 %)), and 37 % (11/30) were lesions indicated for surgical resection (LSR) (9 T1b (30 %), and 2 T2 (6.7 %)). Median size was 20mm (range 5-90). 86 % were

elevated or flat elevated, including lateral spreading tumours, and 14 % were depressed lesions. For each lesion, two sets of endoscopic images were prepared with representative images; one was with white light imaging (WLI) and IEE (conventional observation, CO), and the other was with WLI, IEE, and AEC (CO + AEC). Participants were asked to classify each lesion into LER or LSR and specify high/low confidence of assessment. The primary outcome was an overall accuracy with or without AEC, and the kappa value was calculated for interobserver agreement.

Results Overall accuracy of CO and CO + AEC was 75.5 % (70-83.3) and 76.7 % (73.3-80), 65.6 % (56.7-76.7) and 72.2 % (70-73.3), and 68.9 % (63.3-73.3) and 66.7 % (56.7-76.7) for JE, WE, and RT, respectively. Sensitivity and specificity for LSR (CO/CO + AEC) were 59.3 %/61.8 % and 77.3 %/81.5 %. Among evaluations with high confidence, JE showed the highest accuracy at 89.3 % with CO and 86.7 % with CO + AEC compared to WE (69.8 % and 81.2 %) and RT (77.5 % and 74.9 %). Interobserver agreement (CO/CO + AEC) was moderate (k = 0.58/0.57) in JE and poor in WE (k = 0.26/0.28) and in RT(k = 0.17/0.3) [1–2].

Conclusions Additional effect of acetic acid for predicting colonic neoplasms, including submucosal invasion depth, was limited in all three groups of physicians with different background experiences. Highly experienced with magnifying observation might have contributed to higher interobserver agreement in pretreatment diagnosis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP047 Prospective evaluation of the performance of the CONECCT tool for histological prediction and therapeutic choice in colorectal lesions: Pro-CONECCT

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Aims Endoscopic characterisation of colorectal neoplastic lesions is a key element in predicting histology and choosing the most appropriate type of resection. Six classifications are needed to fully characterise the different colorectal lesions. However, it is difficult to use so many diagnostic tools with numerous sub-categories in the 6 existing classifications. For this reason, we have integrated all the validated criteria from the 6 existing classifications into a single table (CONECCT table), which can be used both to predict histology and to propose an appropriate therapeutic strategy. A prospective, multicentre study including all French gastroenterology residents was carried out to demonstrate the educational value of the CONECCT table. This tool significantly improves histological prediction and the therapeutic choice of French interns and gastroenterologists. We would like to carry out a large-scale prospective evaluation to assess the diagnostic performance (quality) of this tool, in order to simplify endoscopic characterisation and enable proper diagnostic and therapeutic management for each type of colorectal lesion.

Methods The main objective was to evaluate the concordance between endoscopic prediction with CONECCT assessed by the centre's operator compared with the definitive histology of the lesion: CONECCT 0E: endocrine tumour, CONECCT IH: hyperplastic polyp, CONECCT IS: sessile serrated lesion with or without dysplasia, CONECCT IIA: adenoma with low or high grade dysplasia, CONECCT IIC: low or high grade dysplastic adenoma or intramucosal or submucosal adenocarcinoma < 1000 microns, CONECCT IIC + : intramucosal or submucosal adenocarcinoma of any depth, CONECCT III: deep invasive adenocarcinoma > 1000 microns in the submucosa. The secondary endpoints were sensitivity, specificity, positive and negative predictive value of the CONECCT classification assessed by the centre's operator for the 6 types of colorectal neoplastic lesions (0E, IH, IS, IIA, IIC and III) and comparison of these performances with the JNET classification. The number of patients was calculated as 750 lesions with histology available to cover the 6 subclasses of lesions.

Results 482 patients with 898 lesions were included, including 10 classified as CONECCT 0E, 57 IH, 116 IS, 362 IIA, 280 IIC, 36 IIC + and 34 III. Diagnostic performance is shown in the figure. Agreement between CONECCT and definitive histology was 91.46 % with a kappa of 0.90. The PPV of CONECCT III for deep invasive cancer was 65.5 % compared with 54 % for JNET. The NPV of CONECCT for submucosal cancer was 99.6 % for superficial submucosal cancers, which were not separated by JNET and Nice. The adequacy of treatment with the CONECCT strategy was 91.1 % compared with 77 % for JNET and 71 % for NICE.

Conclusions In this prospective, single-centre study, the CONECCT classification presented profiles of sensitivity, specificity, NPV and PPV that were superior or equivalent to NICE and JNET, but with better treatment adequacy when used as a strategic guide. Additional inter-observer concordance data is currently being analysed.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP048 Diagnostic performance of Japan NBI Expert Team (JNET) classification and CONECCT classification for large colorectal laterally spreading lesions treated by endoscopic submucosal dissection: a large western cohort study

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Aims Endoscopic characterization aims to predict histology of a lesion and thus the risk of cancer. The JNET (Japan NBI Expert Team) classification is the classification proposed by guidelines to select the optimal therapeutic approach between EMR (endoscopic mucosal resection), ESD (endoscopic submucosal dissection), or surgery but has not been evaluated in large laterally spreading lesions. CONNECT classification adds macroscopic features to the JNET classification.

Methods Single-center prospective observational study. All patients referred for endoscopic resection of lesions larger than 20 mm.

Results 972 lesions removed by en-bloc ESD were included from 2017 to 2022. 110 (11,3 %) of these lesions contained submucosal invasive carcinoma (SMIC). The sensitivity and specificity for predicting high-grade dysplasia (HGD) to SMIC were 46 % and 75 % for JNET 2B and 87 % and 38 % for CONECCT IIC, respectively; and for predicting superficial SMIC were 67 % and 67 % for JNET 2B and 94 % and 27 % for CONECCT IIC, respectively. No association was found between covert carcinoma (submucosal carcinoma without demarcated abnormalities during optical diagnosis, corresponding to the JNET 2A classification) and buried carcinoma (presence of SMICs, more than 0.5 mm from the surface, where only non-tumoral cells are identified (low-grade dysplasia (LGD) or HGD)).

Conclusions The JNET classification has a low diagnostic accuracy for predicting submucosal cancer risk in large laterally spreading lesions. The CONECCT classification has a high sensitivity for predicting SMIC. When a selective ESD and piecemeal-EMR strategy is used according to submucosal cancer risk, the CONECCT classification should be preferred to avoid undertreatment of SMIC.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Navigating GI bleeding: From risk factors to treatment

25/04/2024, 10:00 – 11:00 Room 6 & 7

OP031 Insights into Endoscopic Management and outcomes for Acute Upper Gastrointestinal Bleeding: A Prospective Multicentre UK audit of 5000 patients

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Aims Acute upper gastrointestinal bleeding (AUGIB) is a common medical emergency. We present the findings on endoscopic management of AUGIB patients in the UK.

Methods A prospective multicentre audit included adults (>16 years) in 152 UK hospitals with AUGIB between May 3 and July 2, 2022.

Results In this study of 5101 cases,83 %(4228) underwent endoscopy for AUGIB, with median age of 69 yrs & in-patient mortality of 7.7 % (328/4228). Glasgow-Blatchford score(GBS), stratified patients into 4 % low-risk(GBS 0-1), 21 % medium-risk(2-6),36 % higher-risk(7-11),& 26 % very high-risk(≥12).32 % were on anticoagulants at presentation. Time to endoscopy from presentation: 0-6 hrs in 6 %, 6-24 hrs in 33 %, & 24-48 hrs in 25 %. Bleeding aetiology identified at endoscopy included peptic ulceration(30 %), oesophagitis(16 %), varices(10 % – with 90 % oesophageal, 16 % gastric, & 2 % duodenal), portal hypertensive gastropathy(4 %), malignancy(4 %), & other(16 %). Stigmata of recent bleeding were observed in 30 %(1273) cases – 41 % with blood in the upper GI tract, 5 % Forrest 1a, 31 % 1b, 15 % 2a, 21 % 2b, & 16 % with high risk markings on varices. Endotherapy was applied in 27 %(1135), with 54 % receiving a single modality. Therapies applied included adrenaline injection (46 % – with median volume of 8 mls;IQR: 5.5-10), haemostatic clip(s)(37 % – with 96 % endoclip(s) & 4 % over the scope clip(s), variceal b&ing or injection therapy(25 %), haemostatic powder/gel(19 %), thermal coagulation(16 %), argon plasma coagulation(11 %), Sengstaken tube(2 %), & Danis stent(1 %). Endotherapy with only adrenaline injection &/or haemostatic powder/gel was applied in 16 %. Among those receiving endotherapy, 4 %(46/1135) did not achieve adequate haemostasis. 17 %(199/1135 – 43 % with blood in the upper GI tract, 7 % Forrest 1a, 26 % 1b, 18 % 2a, 22 % 2b, & 20 % with high risk markings on varices) experienced in-patient re-bleeding, leading to repeat endoscopy in 71 %, interventional radiology in 14 %, & surgery in 6 %.Multivariable logistic regression analyses revealed predictors for in-patient rebleeding & mortality. For rebleeding, endoscopic stigmata(OR-3.06,95 % CI:2.01-4.7), very high-risk GBS scores(OR-5.49,95 % CI:1.27-19.7) & presence of ulcers(OR-1.50,95 % CI:1.03-2.17) were significant. Mortality was significantly associated with endoscopic stigmata(OR-2.12,95 % CI:1.56-2.87), very high-risk GBS scores(OR-4.22,95 % CI:1.42-12.49) & anti-coagulation use(OR-1.85,95 % CI:1.22-2.79). Endoscopic therapy demonstrated a trend toward decreased mortality (OR-0.45,95 % CI:0.20-1.02). Time to endoscopy & various interventions were not significant in either analysis.

Conclusions This prospective UK study identified an increased risk of rebleeding and mortality in very high-risk GBS patients and those with high-risk endoscopic stigmata. Endoscopic therapy showed a trend towards reducing mortality. Adherence to clinical guidelines on endoscopic management in AUGIB, endoscopists' skills training, and 24/7 access to therapeutic modalities are crucial to improve outcomes.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP032 Bleeding severity: defining and evaluating its role on mortality risk. A prospective multicentre cohort study

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DOI 10.1055/s-0044-1782737

Aims Severe gastrointestinal bleeding is recognised as a risk factor for mortality but a proper definition or objective criteria to score its magnitude is lacking. Bleeding severity impacts the pre-endoscopic clinical management decision process and the timing of the endoscopy. Our aim was I) to identify independent factors contributing to the bleeding severity II) to grade its severity and III) to verify the impact of bleeding severity on mortality risk.

Methods A prospective multicentre cohort study was conducted, including all consecutive patients with upper gastrointestinal bleeding hospitalized in 50 Italian hospitals. All clinical, biochemical, and endoscopic factors influencing the bleeding severity were collected. The independent predictive factors were identified by univariate and multivariate logistic regression analysis using a backward regression analysis.

Results a total of 2.525 patients were included (mean age 68 years [± 15.8], males 67.3 %); bleeding source was non-variceal in 82.3 %, and shock index was > 1 in 7.7 %. The factors most significantly associated with mortality were an altered mental status, systolic blood pressure levels, blood uric nitrogen concentration, hemoglobin levels below 8 gr/dl and hematemesis as the clinical presentation at admission. Altered mental status (AMS) and systolic blood pressure ≤ 100mmHg are the factors with the higher odds ratio for a severe bleeding event; hematemesis, type of clinical presentation and haemoglobin (Hb) value ≤ 8gr/dl are those with the lowest odds ratio.

Conclusions An altered mental status, systolic blood pressure ≤ 100 mmHg, blood ureic nitrogen levels, Hb ≤ 8gr/dl and hematemesis at admission are all independent factors implied in the bleeding severity; Patients with none of the identified risk factors have 1 % death risk, with a rise-up to 45.5 % for those having presented all risk factors.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP033 Elderly vs. young patients : clinical, endoscopic and prognostic particularities in case of upper gastrointestinal hemorrhage : prospective study

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Aims Upper GI bleeding (UGI) is the most common reason for emergency hospitalization in hepato-gastroenterology. However, there are not enough studies comparing clinical and endoscopic features between young and elderly patients with upper GI bleeding.

The aim of our study is to compare the epidemiological, clinical, endoscopic, therapeutic and prognostic features of upper GI bleeding in young vs. elderly subjects.

Methods This is a single-center prospective cross-sectional study about 332 patients, conducted over a one-year period between September 2022 and September 2023.

We included in our study all patients admitted to our emergency endoscopy unit for HDH.

We divided our patients into 2 groups, group A corresponding to subjects aged ≥ 65 years and group B corresponding to patients < 65 years.

Results Among the 332 FOGD performed for HDH, 38.9 % were older than 65 years (n = 129). The sex ratio M/F was 2.79. 31.8 % of patients were on antithrombotic therapy (n = 41), and 38.8 % had comorbidities (n = 50).

There was no statistically significant difference between the two groups A and B regarding the origin of HDH , however, it was found that there was a difference between the two groups A and B regarding the use of antithrombotic drugs (31, 8 % vs. 10.8 %, p < 0.001) the presence of comorbidities (39.1 % vs. 20.7 % p < 0.001) the presence of active bleeding (9.3 % vs. 18.7 %, p = 0.019) and the use of endoscopic hemostasis (8.5 % vs. 17.7 %, p = 0.019).

In multivariate analysis and adjusting for age, sex, comorbidities, presence of active bleeding and use of antithrombotic drugs, only the presence of active bleeding could predict the need for endoscopic hemostasis. In fact, the presence of active bleeding increased the likelihood of needing endoscopic hemostasis by 29.63-fold (OR: 29.62, CI: 13.52- 64.90, p < 0.001), whereas the use of antithrombotics (OR: 0.24, CI: 0.067- 1.452, p = 0.37) and age ≥ 65 years (OR: 0.425, CI: 0.205- 1.342, p = 0. 21) did not influence this risk.

Conclusions Although older subjects had more comorbidities, more use of antithrombotics, HDH in this age group does not appear to be more severe with a lower rate of active bleeding at endoscopy implying a less frequent need for endoscopic hemostasis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP034 A novel post-colonoscopy thromboembolic risk predictor (PTRP) in patients on antithrombotic agents: a validation study

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DOI 10.1055/s-0044-1782739

Aims Patients receiving anti-thrombotic agents are at a heightened risk of both bleeding and thromboembolic (TE) events during colonoscopy. Identifying high-risk patients is crucial to determine the need for more robust prophylactic measures to mitigate the risk of bleeding during colonoscopy and enable a timely resumption of antithrombotic agents. This study explores the efficacy of novel artificial intelligence models in predicting the risk of post-colonoscopy TE events.

Methods The PTRP model was trained using a cohort of 1182 patients who were receiving various anti-thrombotic agents and underwent colonoscopy between January 2016 and June 2019 in Queen Mary Hospital. This model, which incorporated 25 baseline clinical predictors, was subsequently validated against two cohorts, namely validation cohort 1 and validation cohort 2, both of which were from Queen Mary Hospital between July 2019 and May 2021 (n = 560), as well as another validation cohort from 42 other local public hospitals in 2021 (n = 10,430). The primary outcome of interest was post-colonoscopy TE event, which was defined as any hospitalization for TE and ischaemic events within 30 days of the index colonoscopy, including acute myocardial infarction, angina pectoris, deep vein thrombosis, pulmonary embolism and infarction, ischaemic stroke and transient ischaemic attack. Model accuracy was assessed using the area under the receiver operating characteristic curve (AUROC), with the conventional CHA2DS2-VASc score serving as the reference.

Results The incidence of TE events was 0.7 %, 1.0 % and 1.1 % in the training, validation cohort 1 and validation cohort 2, respectively. The PTRP model was significantly more accurate than CHA2DS2-VASc in both validation cohort 1(0.938 vs 0.837, p < 0.001) and validation cohort 2 in term of AUROC (0.815 vs 0.718, p < 0.001). And PTRP model had also a fewer number needed to screen to pick up one TE event in both validation cohorts (13.8 vs 32.3, p < 0.001 and 32.3 vs 43.5 ,p < 0.001) with a similar miss rate (0.3 % vs 0.3 %, p = 0.532; 0.4 % vs 0.3 %, p = 0.250).

Conclusions PTRP model was more accurate than CHA_2DS_2-VASc score in prediction of TE event after interruption of antithrombotic for colonoscopy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP035 Effect of the Self-Assembling Peptide Solution Treatment on Healing and Prevention of Delayed Bleeding from Post-Resection Defect after Advanced Endoscopy Therapy in GI Tract

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DOI 10.1055/s-0044-1782740

Aims After endoscopic mucosal resection (EMR) or endoscopic submucosal dissection (ESD) for non-pedunculated lesions in GI tract the mucosal or submucosal defect is created. It can be treated by monopolar coagulation or clip closure. Recently new method using the self-assembling peptide (SAP) has been introduced. SAP forms the nanofibers web andthe extracellular matrix resulting in three outcomes: acute bleeding hemostasis, delayed bleeding reduction andimproved post-resection defect healing.

Methods The retrospective analysis of patients with SAP treatment after EMR and ESD in GI tract evaluating delayed bleeding and mucosal/submucosal defect healing was assessed. Delayed bleeding was defined as the occurrence of rectal bleeding in 30 days after the procedure. Post-resection defect healing was assessed by Sakita-Fukutomi classification using 6-point scale: active (A1, A2), healing (H1, H2) and scare (S1, S2) stage and size measurement with biopsy forceps and/or open polypectomy snare. Patients were followed after 1, 4, 8 and 24 weeks after therapy.

Results Between December 2020 and August 2023, 79 patients were treated with SAP (50 men, 63 % and 29 women, 37 %)with 7 lesions in oesophagus (9 %), 11 in stomach (14 %), 14 in colon (18 %) and 47 in rectum (59 %). Resected tissue average size was 33 mm (min. 10 mm, max. 110 mm). 52 lesions were resected by ESD (66 %), 5 by ESD combined with EMR (6 %), 20 by piecemeal EMR (25 %) and 2 by en-bloc EMR (3 %). R0 resections in en-bloc resection was achieved in 83 % cases. Histopathology results were as follows: 58 benign (78 %; 8 no dysplastic, 30 low-grade dysplasia, 14 high-grade dysplasia, 6 intramuscular cancer) and 16 malignant (22 %; 15 T1 cancers, 1 T2 cancer) and 5 not evaluated. Delayed bleeding was observed in 5 patients (5 %), all within 48 hours, all successfully treated endoscopically (4 SAP, 1 SAP + coagulation). Size of the post-resection defect was reduced in 1, 4 and 8 weeks by 15 %, 50 % and 64 % respectively. The most frequent Sakita-Fukutomi stage observed at week 1 was active stage (A1 14 %, A2 39 % of all defects), at week 4 healing stage (H1 28 %, H2 32 %), at week 8 scar stage (S1 24 %, S2 24 %) and at week 24 only S2 stage (25 %).

Conclusions Self-assembling peptide solution seems to be effective in healing and prevention of delayed bleeding from post-resection defect after advanced endoscopy therapy in GI tract.

Conflicts of interest Lectures for 3D Matrix, the manufacturer of SAP

Endoscopy 2024; 56: S1–S503

OP036 Efficacy and safety of left atrial appendage occlusion in patients with severe, recurrent, and refractory gastrointestinal bleeding

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DOI 10.1055/s-0044-1782741

Aims To assess the safety and efficacy of left atrial appendage (LAA) percutaneous occlusion in preventing digestive rebleeding in patients with indications for chronic anticoagulation and recurrent refractory gastrointestinal bleeding.

Methods Observational and retrospective study. All patients who underwent LAA occlusion between January 2017 and July 2023 were reviewed. Only those undergoing the procedure due to gastrointestinal indications (severe, recurrent, or refractory bleeding to endoscopic treatments) were included. Following the intervention, all patients received dual antiplatelet therapy with clopidogrel and acetylsalicylic acid (ASA) for one month, followed by single antiplatelet therapy for an additional 5 months (antithrombotic prophylactic protocol). The rebleeding rate was assessed during the immediate postoperative period (< 6 months) under this protocol, and the late period (> 6 months) after discontinuation.

Results Out of 58 patients undergoing LAA occlusion, 24 (50 %) had indications due to gastrointestinal bleeding (mean age 81.5 years; 58 % male). Chronic anticoagulation indication was atrial fibrillation in 83 % and flutter in 17 %. The most common indications for LAA occlusion were recurrent bleeding from angiodysplasias (42 %), diverticular bleeding (29 %), and gastric antral vascular ectasia (GAVE) (17 %). The mean number of both diagnostic and therapeutic endoscopic procedures was 5, 2, and 7, respectively. All patients with GAVE-related bleeding had previously undergone endoscopic treatment, 70 % of patients with angiodysplasia-related bleeding, and no patients with diverticular bleeding. As procedure complications, 2 patients (8 %) developed pericardial effusion, and 1 patient died from hemodynamic angina secondary to gastrointestinal bleeding. After LAA occlusion (median follow-up of 15 months (IQR 9-29)), 16 patients had no further bleeding events (71 %), 5 patients (21 %) rebleed in the immediate postoperative period while under antithrombotic prophylactic protocol, and 3 (12 %) rebleed after its completion. Among patients with immediate bleeding, one died due to this cause, and in the rest (4/5), antiplatelet therapy was either discontinued or simplified without new bleeding episodes in subsequent follow-up. After LAA closure and completion of the post-procedural antiplatelet protocol, 88 % of patients remained free of bleeding events throughout the follow-up.

Conclusions LAA closure prevents gastrointestinal bleeding in 88 % of patients. LAA closure in patients with indications for chronic anticoagulation and severe, recurrent, and refractory gastrointestinal bleeding is safe and effective.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Maximizing preparation for successful endoscopy

25/04/2024, 10:00 – 11:00 **Room 10**

OP037 Prospective validation of the Barcelona scale for the assessment of cleanliness in upper gastrointestinal endoscopy

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Aims Proper visibility of the mucosa is required in order to detect clinically significant lesions (CSL) in the upper gastrointestinal (GI) tract. However, there are few scales with prospective validation for the assessment of the upper GI mucosal cleanliness during upper GI endoscopy.

Aim. To assess the relationship between the presence of CSL in the upper GI tract and the mucosal cleanliness evaluated by the Barcelona Scale.

Methods We conducted a multicenter and prospective study in 14 Spanish hospitals. Patients who underwent a diagnostic upper GI endoscopy were included. Exclusion criteria included urgent, and follow-up upper GI endoscopies, and patients with upper GI hemorrhage, suspicion of intestinal obstruction or with history of gastrectomy. After all necessary cleansing maneuvers, 5 segments (esophagus, fundus, corpus, antrum and duodenum) were assigned a score from 0 (not assessable due to the presence of content) to 2 (mucosa is fully visualized), so 10 was the maximum score. The following were considered CSL: reflux esophagitis, Barrett's esophagus, ulcers, malignant tumors, atrophic gastritis, gastric intestinal metaplasia, gastric polyps and subepithelial lesions.

Results A total of 641 patients were included, who obtained a median score of 9 (2-10). The average time needed to complete the endoscopy was 8 ± 2.69 minutes (1.16-26). Three hundred and thirty-six CSL were identified in 268 patients (41.8 %). Of these, 88.8 % (238/268 patients) had a total cleanliness score ≥ 8. Reflux esophagitis, atrophic gastritis and gastric polyps were the most frequent CSL and achieved a score ≥ 8 in 84.2 %, 92.5 % and 93.9 % of cases, respectively.

Conclusions A significantly greater number of CSL were detected in upper GI endoscopies with excellent cleanliness. Reflux esophagitis, atrophic gastritis and gastric polyps showed increased detection with greater cleanliness. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

References

[1] Córdova H, Barreiro-Alonso E, Castillo-Regalado E et al. A al. Applicability of the Barcelona scale to assess the quality of cleanliness of mucosa at EGD. Gastroenterol Hepatol 2023. doi:10.1016/j.gastrohep.2023.05.011

OP038 International validation of a PEACE scale assessing cleanliness during esophagogastroduodenoscopy to improve the quality of inspection during endoscopy

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Aims Upper gastrointestinal (UGI) endoscopy quality depends on the capability to detect mucosal pathologies. Proper visibility is necessary to identify lesions and subtle mucosal abnormalities. The PEACE scale (Polprep: Effective Assessment of Cleanliness in Esophagogastroduodenoscopy) was recently created to assess UGI cleanliness. Cleanliness assessed using the PEACE scoring system was directly related to detection of clinically significant pathologies [1]. The aim of this study was to validate the concordance of the PEACE scoring system globally.

Methods A group of 16 international experts participated in the study. Prior to the video assessment, the experts underwent training on the PEACE scale scores using 21 photographs and 8 videos. In a single round between April and June 2023, the experts assessed 39 videos of three segments (esophagus, stomach, duodenum). The cleanliness of the mucosa on each video was rated using the PEACE scale – from 0 to 3 (0 = completely obscured, 1 = poor visibility, 2 = good visibility, 3 = excellent visibility). To evaluate agreement of all scores (0 – 3) intraclass correlation coefficient (ICC 2.1) was used. The agreement on adequate (scores 2 and 3) and inadequate (scores 0 and 1) cleanliness was assessed with Conger's kappa value. ICC values 0.5 – 0.75 were considered as moderate, 0.75 – 0.9 as good, and > 0.9 as excellent. Kappa values 0.33 – 0.5 were considered as fair, 0.5 – 0.67 as moderate, 0.67 – 0.9 as substantial, and over 0.9 as almost perfect.

Results The overall agreement on PEACE scores was good (0.82 95 % CI 0.75 – 0.89). The agreement was good in esophagus (0.84; 95 % CI 0.71 – 0.95), and stomach (0.81; 95 % CI 0.69 – 0.91) and moderate in duodenum (0.69; 95 % CI 0.51 – 0.87). The concordance between Eastern and Western experts was comparable (0.86; 95 % CI 0.79 – 0.92 and 0.80; 95 % CI 0.72 – 0.88 respectively) being good in both cases. The overall agreement in identification of inadequate cleanliness (scores 0 and 1) was substantial (0.75; 95 % CI 0.65 – 0.85). It was substantial in stomach and esophagus (stomach 0.77; 95 % CI 0.62 – 0.93 and esophagus 0.68; 95 % CI 0.23 – 1) and moderate in duodenum (0.55; 95 % CI 0.32 – 0.79). The agreement on adequate vs inadequate cleanliness was similar among the Western and Eastern experts (Western: 0.74; 95 % CI 0.64 – 0.84 and Eastern: 0.70; 95 % CI 0.55 – 0.85) being substantial in both cases. [1]

Conclusions Assessment of mucosal cleanliness of the UGI tract using the PEACE scale shows high concordance for both overall scoring and for identification of adequate cleanliness. This scale allows the implementation of a simple, uniform method to assess and document cleanliness during esophagogastroduodenoscopy (similar to the Boston Bowel Preparation Scale for colonoscopy). The scale being validated among international experts with high concordance, can be used in clinical practice.

Conflicts of interest Samir C. Grover – equity and ownership interest in Volo Healthcare; research grants form Olympus; consulting fees and honoraria: Amgen, BioJAMP, Pfizer and Sanofi, and Abbvie; education grants: Fresenius Kabi, BioJAMP, Celltrion, Takeda, Pfizer. Rena Yadlapati – consultant for Medtronic, Phathom Pharmaceuticals, StatLinkMD, Reckitt Benckiser Healthcare Ltd, Medscape; Research Support: Ironwood Pharmaceuticals; Advisory Board with Stock Options: RJS Mediagnostix Christopher Teshima – consultatnt – Boston Scientific; speaker – Medtronic Prasad G. Iyer – Research funding: Exact Sciences, Pentax Medical, CDx Medical, Castle; Biosciences; Consultant: Exact Sciences, Pentax Medical, Medtronic, CDx Medical, Castle Biosciences. Raf Bisschops: Research grant, advisory and consultancy fees: Pentax Medical, Fujifilm. Prateek Sharma: Consultant: Boston Scientific, Olympus Inc; Grant support: US Endoscopy, Medtronic, Fujifilm, Ironwood, Cosmo pharmaceuticals, Erbe Michał Filip Kamiński: Consultant: Olympus, Erbe speaker: Boston Scientific, Ipsen, Recordati; Grant support: Olympus Rest of authors: nothing to declare.

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OP039 Premedication with a novel cleansing solution containing simethicone, N-acetylcysteine and acetic acid improves visualization during upper GI endoscopy: a double-blind, multicenter, randomized controlled trial

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Aims Esophagogastroduodenoscopy (EGDS) is the gold standard examination for upper GI disease diagnosis. Intraluminal presence of bubbles and mucus may reduce visibility and potentially impair lesion detection. It has been shown that the administration of mucolytic and tensioactive agents before EGDS can improve gastric visualization. Hence, we performed a randomized controlled trial (RCT) testing the effect of premedication with a novel solution containing simethicone, N-acetylcysteine and acetic acid on whole upper GI tract visualization.

Methods We conducted a multicenter, prospective, double-blind RCT on consecutive adult outpatients undergoing EGDS. Between December 2022 and November 2023, patients were randomized 1:1 to drink a 50 ml cleansing solution containing simethicone 150 mg, N-acetylcysteine 250 mg and 10 % acetic acid (Lumevis, Biofarmatec srl, Palermo, Italy) 30 minutes before the EGDS or to fasting only. The primary outcome was vision quality (VQ) in the whole upper GI tract, defined as the sum of 1-10 visual analogic scale (VAS, 0 = no visualization – 10 = perfect visualization of the mucosa) scores for each segment (esophagus, stomach and duodenum) before washing. Secondary outcomes included VQ in each upper GI segment, EGDS duration and adverse event rate

Results A total of 120 patients were enrolled and randomized to cleansing solution (n = 60) or fasting only (n = 60). Patients' characteristics are shown in Table 1. Administration of the cleansing solution before EGDS was associated with a significantly (p = 0.001) higher VQ in the whole upper GI tract compared to no intervention (median VAS score 23 [range 21-25] *vs* 19 [range 16-23], respectively). Regarding each upper GI segment, cleansing solution premedication was associated with a significantly higher VQ compared to fasting only both for the stomach (p = 0.001, median VAS score 7 [range 6-8] *vs* 5 [range 4-7], respectively) and the duodenum (p = 0.001, median VAS score 9 [range 8-10] *vs* 7 [range 5-9], respectively), but not for the esophagus (p = 0.130, median VAS score 7 [range 6-9] *vs* 7 [range 6-8], respectively). No significant difference was observed in EGDS duration between the cleansing solution and fasting only (p = 0.272, 6.1 *vs* 6.5 minutes, respectively), and no adverse events were reported in both groups.

Conclusions Compared to fasting only, the administration of a novel cleansing solution containing simethicone, N-acetylcysteine and acetic acid before EGDS was associated with overall improved mucosal visualization of the upper GI tract. Our RCT results suggest that cleansing solution premedication improves quality and potentially diagnostic yield of EGDS.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP040 Tolerance and colonic prep quality with a sodium ascorbate based custom crafted preparation: Blind comparative study with split dose polyethylene glycol

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DOI 10.1055/s-0044-1782745

Aims Compare the degree of colon cleansing and patient tolerance in two single-dose bowel preparation regimens: a split dose of 105 g of polyethylene glycol 3350 diluted in 4 liters (PEG) of water versus a split dose of a low-volume custom preparation based on polyethylene glycol plus sodium ascorbate and ascorbic acid diluted in 1 liter of water (P-ASC).

Methods A multicentric, prospective, single-blind study that included a total of 107 patients undergoing screening colonoscopy from March 8th to July 7th, 2023. The procedures were performed in two endoscopy centers by three physicians in the city of Mexicali, Baja California, Mexico, with a standardized technique, high-definition equipment Fujifilm 760R and ELUXEO 7000. Diverse colonoscopy quality criteria and the Boston Bowel Preparation Scale were evaluated. A Likert scale (0-5) was used to assess preparation discomfort or symptoms. Quantitative variables are represented in mean, median, and standard deviation. Univariate and multivariate logistic regression analysis along with central tendency measures were calculated using IBM SPSS v21.

Results A total of 107 patients (68 women, 63.6 %; mean age 55.1 ± 14.1, BMI 28.2 ± 5.1) with a history of hypertension (37.4 %), type 2 diabetes mellitus (15.9 %) and hypothyroidism (9.3 %), among others, were evaluated. Resulting in 55 patients (51.4 %) using the PEG + SA + AA preparation in which ileocecal cannulation was achieved in 100 % of the patients, without difference between groups (p = 0.486), with a total procedure time of 40.9 ± 14 minutes.

The main adverse effects were increased drowsiness (p = 0.033) and excessive thirst (p < 0.001) in P-ASC pts compared with vomit (p = 0.043) in PEG pts. There were no differences regarding hydroelectrolyte alterations. The mean Boston Bowel Preparation Scale was 7.42 vs 6.54 (73.6 % vs 55.7 %, p = 0.02).

The overall polyp detection number per patient was calculated, with no difference between groups (p = 0.285; SE 0.593). The adenoma (p = 0.285) and sessile serrated adenoma (p = 0.347) detection rate were similar between the groups.

Conclusions The use of a low-volume preparation based on sodium ascorbate and ascorbic acid is associated with better bowel preparation, and is a well-tolerated preparation where side effects were minimal and similar to those reported in the literature with other preparations; the aforementioned is reflected in the satisfaction of the patient. A larger patient population is needed in order to obtain conclusions regarding premalignant lesions, as well as to consider the impact it may have on costs.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP041 A Pre-Colonoscopy Personalized Digital Platform Markedly Reduces Ambulatory Colonoscopy 'No-Show' rates

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Aims Colonoscopy is a well-established screening tool for detection of colorectal lesions. Colonoscopy waiting-lists can last for months, however, the rates of unperformed procedures due to patients' absence ('no-show') are 8-15 % globally. The aim of this study was to evaluate whether a personalized digital platform would reduce 'no-show' rates for ambulatory colonoscopies.

Methods We retrospectively analyzed prospectively collected data regarding scheduled ambulatory colonoscopies. The digital platform (DP) includes a patient-tailored animated video, individualized according to age, gender, comorbidities and language. It also includes links to written instruction forms and consent forms, and a set of reminders. During 01-06/2022, a link to the system was randomly sent to patients before a scheduled colonoscopy. The study group ('DP-Link') included all patients that were sent the link by SMS. The control group received standard written instructions by email.

Results During the study period, a total of 2114 colonoscopies were included. The DP link was randomly sent to 1621 (76.7 %) patients ('DP-Link') and standard written preparation instructions to 493 (23.3 %) controls ('No link').

The 'no-show' rates were reduced by half among the 'DP-Link' group compared to controls [190 (11.7 %) vs. 114 (23.1 %), respectively, p < 0.001]. This significant 'no-show' rate reduction in the 'DP-Link' group compared to the 'No Link' group was consistent among males' and females' subgroups analysis (11.8 % vs. 27.5 %, p < 0.001 and 11.7 % vs. 19.3 %, p = 0.003, respectively) and among all age groups (p < 0.05, for all groups). Furthermore, the 'DP-Link' group was divided according to usability: 1. 'No video' – Video was not watched at all, 757 (46.7 %), 2. 'partial users' – Watched < 75 % of the video,77 (4.8 %) and 3. 'Full users' – Watched > 75 % of video, 787 (48.6 %). There was a "dose-dependent" trend between usability groups and 'no-show' rates: 'No link'- 23.1 %, 'No video'-17.4 %, 'partial users' -10.4 %, 'Full users'- 6.4 % (P < 0.001).In two multivariate logistic regression adjusted for age, sex, preparation protocol and morning vs. afternoon colonoscopy, 'DP-Link' receivers and 'Full users' were each independently associated with 36 % and 68 % 'no show' rate reduction compared to 'No link' controls (OR 0.642, P = 0.003 and OR 0.316, p < 0.001, respectively). According to the number needed to treat analysis, the number of sent links required for prevention of one 'no show' was 8 links.

In terms of economical calculations, using the DP will reduce the monthly income loss due to 'no-show' by ~17,550 euro and the yearly income loss by ~210,500 euro, considering 400 colonoscopies/month of which 35 % include polypectomy.

Conclusions Implementation of a DP significantly reduced 'no show' rates for ambulatory colonoscopy. This reduction can result in increased efficiency and reduced financial losses as well as shorter waiting times in gastroenterology units.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP042 Large Language Model Chat GPT-4 Can Outperform Clinicians in Endoscopy Triage

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DOI 10.1055/s-0044-1782747

Aims We sought to compare adherence to current national and international guidelines on triage of new patient referrals and surveillance endoscopy procedures between a commercially-available general large language model (LLM) and clinical staff working in an academic department of gastroenterology.

Methods A consultant gastroenterologist used guidelines from the European Society of Gastrointestinal Endoscopy (ESGE), Ireland's Health Information and Quality Authority (HIQA) and National Cancer Control Programme (NCCP), the UK's National Institute for Health and Care Excellence (NICE) and the British Society of Gastroenterology (BSG) to construct 64 fictional patient cases requiring consideration for symptomatic or surveillance endoscopy. The cases were divided across five categories: lower gastrointestinal symptomatic (LGI),

upper GI symptomatic (UGI), family history of colorectal carcinoma (FHCC), polyp surveillance (PS) and Barrett's oesophagus surveillance (BS). Consultants, registrars and nurses in the Department of Gastroenterology and the general LLM, Chat GPT-4, were asked to read the cases and choose the appropriate disposition for each (attempt 1). Each participant was later given text or an algorithm summarising the relevant guidelines and asked to respond to each case again (attempt 2).

Results Twenty clinicians and one LLM participated in the study. In attempt 1, the LLM median (IQR) score was higher than clinician in LGI [70 (60,70) vs 50 (37.5,60), p = 0.008] and FHCC [82 (73,82) vs 36 (27,65), p = 0.003] while there was no statistically significant difference in BS [71 (64,71) vs 57 (43,64), p = 0.37)], PS [31 (23,46) vs 31 (21,48), p = 0.84] or UGI [50 (50,62.5) vs 53 (50,57), p = 0.81)]. In attempt 2, median clinician scores improved to LGI [80 % (70,80)], FHCC [78 % (52,91)], BS [79 % (67,86)], PS [62 % (42,71) and UGI [75 % (74,81)]. After inputting guideline summaries, LLM performance improved in LGI (70 %), PS (69 %) and BS (71 %) but worsened in UGI (50 %) and FHCC (64 %).

Conclusions LLMs may prove a useful tool for administrative and triage tasks for busy clinicians, but unsupervised decision-making cannot yet be delegated to LLMs. Specific models trained only on discrete inputs including relevant guidelines may improve performance. Clinicians using LLMs will require specific training on how best to converse with LLMs, to ensure optimal outcomes for patients and health services.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Optimizing diagnosis and management of pancreatic cystic lesions

25/04/2024, 11:30 – 12:30 **Room 8**

OP049 A multicenter approach for the development of an artificial intelligence algorithm for the evaluation of pancreatic cystic lesions during endoscopic ultrasound

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Aims Pancreatic cystic lesions (PCLs) are increasingly prevalent findings due to the improvement in abdominal imaging techniques. Although most of these lesions are benign and do not require specific follow-up, their etiology is varied, and some are associated with an increased risk of malignancy. The risk of malignancy is almost exclusive of mucinous PCLs (M-PCLs). The distinction between M-PCL and non-mucinous PCLs (NM-PCLs) is essential for the management of these patients, and endoscopic ultrasound (EUS) plays as key role for the morphological, biochemical and cytological evaluation of these lesions, despite these parameters show a suboptimal performance. The application of artificial intelligence (AI) to EUS has provided promising results, including for the evaluation of PCLs. Nevertheless, to this date, existing evidence is limited to small unicentric studies. This study provides a multicentric approach with the aim of developing a convolutional neural network (CNN) for the automatic detection and differentiation of M-PCLs and NM-PCLs.

Methods We developed a CNN based on 42 EUS exams performed at two tertiary centres (Centro Hospitalar Universitário de São João [CHUSJ], Porto, Portugal and Hospital Universitario Puerta de Hierro Majadahonda [HUPH], Madrid, Spain). Cysts were ultimately classified as mucinous or non-mucinous based on cystic fluid analysis (M-PCL: intracystic CEA level > 192ng/mL and glucose levels < 50mg/dL) and/or histopathologic analysis of intracystic biopsies or surgical specimens. The full image dataset was divided into training and validation datasets. The network's performance was assessed regarding its sensitivity, specificity, positive and negative predictive values, accuracy, and area under the curve (AUC).

Results A total of 27,694 images from 42 patients were included. From the total pool of images, 19,528 showed M-PCLs and 8,166 of NM-PCLs. In the testing phase, the model achieved an overall accuracy of 99.0 %, a sensitivity of 99.1 %, a specificity of 98.9 %, a PPV of 99.5 % and a NPV of 97.8 %. The model achieved an of 1.00 for distinguishing between the two subtypes of lesions.

Conclusions To our knowledge this study describes one of the first multicentric approaches for the development of an AI algorithm for the distinction between M-PCLs and NM-PCLs. These multicenter approaches are essential to provide feature variability and enlarge datasets where volume of data is scarce. Our model achieved high levels of performance with a high overall accuracy. Further expansion of these multicentric studies is crucial for further development and clinical application of these algorithms, particularly regarding its real-time application.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP050 Real-time AI-powered EUS imaging analysis software for detection and segmentation of cystic versus solid pancreatic lesions

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Aims Detection and differentiation of cystic versus solid pancreatic lesions prior to performance of EUS-guided fine needle aspiration biopsy (EUS-FNA/B) can be automated by use of artificial intelligence (AI) techniques based on convolutional neural networks (CNN). We aimed to test the technical feasibility of a novel real-time AI-powered EUS imaging analysis software for detection and segmentation of the pancreas, cystic pancreatic lesions and/or solid pancreatic masses (PANC-AI).

Methods 202 consecutive patients undergoing EUS examination of pancreas were included in the study. Two expert EUS investigators labelled the EUS grey-scale movies with respect to identification of pancreas (uncinate, head, neck, body and tail), cystic pancreatic lesions and solid pancreatic masses. The gold standard for diagnosis of cystic and/or solid pancreatic lesions was achieved by EUS-FNA/B with rapid on-site assessment followed by histology. Individual images (frames) were uploaded into VGG Image Annotator (https://www.robots.ox.ac.uk/~vgg/software/via/) and cross-labelled by two independent physician annotators. Training was performed using a faster but less complex CNN1 and a slower but more complex CNN2, based on the first 150 patients (29586 frames). Subsequent testing was performed on 52 different patients (3127 frames). The movies tested with the CNNs were further categorized by non-clinician operators into the same diagnostic categories.

Results Based on acquired preliminary data, we compared the percentage (ratio) of EUS procedures that yield clinically relevant information for the detection of cystic and/or solid pancreatic lesions in a typical patient population

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submitted for pancreas EUS. The overall accuracy for case-based analysis was 100 % (CNN1) & 91 % (CNN2) for cystic pancreatic lesions, and 100 % (CNN1) & 92 % (CNN2) for solid pancreatic masses, respectively. The overall accuracy, precision and recall for frame-based analysis were automatically calculated and reported, being 77 %, 91 %, 57 % (CNN1) & 80 %, 72 %, 63 % (CNN2) for cystic pancreatic lesions, as well as 77 %, 83 %, 62 % (CNN1) & 75 %, 75 %, 72 % (CNN2) for solid pancreatic masses, respectively.

Conclusions In conclusion, the PANC-AI software reliably detected pancreas and segmented all cystic pancreatic lesions and/or solid pancreatic masses before the performance of EUS-FNA/B. With additional refinements, this technology may have the potential to improve learning curve and operating characteristics of EUS for pancreas examinations.

Conflicts of interest Own stock – Medical Softverse srl

OP051 BD-IPMN surveillance: a real-life experience from an Italian level III center

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Aims Risk of branch duct intraductal papillary-mucinous neoplasms (BD-IPMNs) to harbor malignancy is not clearly understood, especially in relation to unfavorable evolutions after long periods of stability. Therefore, follow up (FU) is often continued indefinitely, resulting in significant healthcare costs. However, a recent multicenter study showed that the risk of developing cancer in presumed BD-IPMNs without worrisome features (WF) or high-risk stigmata (HRS) after 5 years of stability is equivalent to an age-matched population based on cyst size. The authors proposed to discontinue the FU after 5 years of stability in patients 75 years or older with cysts < 30 mm and in patients 65 years or older with cysts ≤ 15mm. Aim of this study is to evaluate the risk of malignant transformation, surgery and death related to BD-IPMN without WF/HRS at diagnosis, in a real-life cohort of patients under surveillance, particularly after 5 years of FU and among patients that potentially fulfilled criteria for discontinuing surveillance.

Methods This is a retrospective study on a cohort of patients with presumed BD-IPMN without WF or HRS at the diagnosis and a minimum FU of 12 months, followed in an Italian level III center between 2014 and 2023. We extracted all available clinical and imaging data. Incidence rates of malignancy, surgery and mortality related to BD-IPMN were calculated as number of events per 100 person/year (pyrs). [1–3]

Results We enrolled 413 patients (M:F 0,57, median age 65 years) with a median FU of 36 months; 108 patients had been under surveillance for more than 5 years. During observation 83 patients (20 %) developed at least one WF and 3 developed an HRS (0,7 %). Overall, 4 patients developed a pancreatic malignancy related to IPMN (0,26/100 pyrs) and 3 patients underwent surgery (0,19 /100 pyrs), 2 with histologically confirmed cancer and 1 for a cyst harboring low grade dysplasia. Overall, 4 patients died during FU, 2 for IPMN-related cause (mortality rate 0,13/100 pyrs); it should be emphasized that both patients had not respected the established FU intervals during COVID pandemic. However, among 89 patients stable after 5 years of FU no one developed HRS or pancreatic malignancy, underwent surgery or died for IPMN-related causes. In the subgroup with more than 65 years and a lesion ≤ 15 mm (39 patients, median FU 79 months), only 2 subsequently developed a WF; in the subgroup with more than 75 years and a lesion < 30 mm (35 patients, median FU 81 months) 5 developed a WF.

Conclusions The incidence and mortality of pancreatic cancer related to BD-IPMN are not negligible even among cyst without WF/HRS at diagnosis; however, in some subgroups of patients FU discontinuation appears safe and convenient, as further transformation is unlikely after 5 years of stability.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP052 Risk Stratification for BD-IPMN Malignant Transformation. The role of operative dimensional grouping in the cost-effectiveness optimization of surveillance guidelines. The PACMANS Study

Authors S. Kayali[1], E. Marabotto[2], S. Dibitetto[3], F. Gaiani[1], A. Busatto[4], S. Caprioli[2], A. P. Luzzi[2], E. Savarino[4], L. Laghi[1], C. De Angelis[3], E. G. Giannini[2]

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Aims In recent years, the detection of Branch Duct Intraductal Papillary Mucinous Neoplasms (BD-IPMN) has increased. The Association of Pancreatology (IAP) approved specific guidelines for their management in Fukuoka in 2017. The rates of malignant degeneration of these lesions remain unclear, raising concerns about the cost-effectiveness of the suggested surveillance strategies. This study aimed to identify the rates of BD-IPMN malignant degeneration and their associated risk factors to propose a new, more cost-effective surveillance strategy.

Methods In this multicentric retrospective observational study, clinical and histopathological data of patients with IPMN were collected by four tertiary centers in Northern Italy. Multivariate Cox regression identified factors associated with a higher risk of malignant degeneration. A segmentation analysis aimed to define new dimensional cut-offs for better risk stratification. Demographic and anamnestic data relating to the patient (age, gender, comorbidities based on the Age-Adjusted Charlson Comorbidity-Index (ACCI), imaging, endoscopic examinations, and surgical interventions), to IPMN (presence of Worrisome Features (WF) and High-Risk Stigmata (HRS) as defined by IAP), and surveillance costs were collected. Malignant degeneration was defined as the presence of high-grade dysplasia or invasive neoplasia.

Results The study enrolled 333 patients, with a total of 1400 visits and a median follow-up of 4 years. IPMN developed malignant degeneration in 3.3 % of cases. Cancer risk factors included the presence of HRS (HR 4.4, 95 % CI 1.1-17.8, p = 0.04), of at least two WFs (HR 5.8, 95 % CI 1.5-22.4, p = 0.01), and cyst size (HR 2.0, 95 % CI 1.3-3.0, p < 0.001). The latter discriminated this risk (AUC 0.91, 95 % CI 0.84-0.97), and two new cut-offs of 1.5 and 3.0 cm identified three dimensional categories with significantly different neoplastic potential (OR 6.6, 95 % CI 1.7-25.4, p = 0.007, OR 9.8, 95 % CI 1.1-89.7, p = 0.04). Based on this, we proposed a new surveillance strategy that maintained diagnostic accuracy while reducing the cost per patient for a 3-year follow-up from 670.01 (407.33-1130.32) to 587.01 (347.10-930.28) euro, resulting in a total savings of 11 % (p = 0.001).

Conclusions IPMN malignant degeneration was infrequent. The presence of at least one WF, currently a cornerstone of guideline recommendations, did not independently associate with neoplastic risk, unlike HRS and the presence of at least two WFs. Implementing a follow-up strategy based on operatively identified dimensions (1.5 and 3 cm) could potentially enhance the cost-effectiveness of the 2017 Fukuoka IAP guidelines.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP053 Timing of Lumen-Apposing Metal Stents removal in pancreatic fluid collections: could we go beyond?

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DOI 10.1055/s-0044-1782752

Aims Lumen-apposing metal stents (LAMS) are becoming the mainstay treatment for pancreatic fluid collections (PFC). A 4-weeks interval for LAMS removal has been suggested to avoid adverse events (AEs) but evidences are scarce. Aim of the study is to evaluate the rate of AEs in patients with PFC undergoing LAMS removal < 4 weeks and > 4 weeks from placement. The secondary aim is to assess the possible factors associated with AEs occurrence.

Methods Retrospective study on patients underwent EUS-guided drainage of PFC with LAMS at two Italian centers between January 2017 and May 2023. PFC and LAMS features were collected. AEs were defined as bleeding, LAMS obstruction and buried LAMS.

Categorical variables were analyzed by Fisher's exact test, and continuous variables were analyzed by Student's t-test. $P < 0.05$ was considered significant.

Results Sixty-three patients were enrolled (58.7 % males; mean age 60 ± 14 years old). The mean time of LAMS indwelling was 84 ± 99 days and in 77.8 % patients the LAMS was removed after 4 weeks. Overall, AE occurred in 4 patients (6.3 %). The 75 % of AE was bleeding and the 25 % was LAMS obstruction.

There was no difference in term of sex (31/49 vs 6/14 p 0.23), mean age (59 ± 15 vs 61 ± 13 p 0.61), size of PFC > 80 mm (24/42 vs 6/12 p 0.75), LAMS size bigger than 15 mm (35/49 vs 10/14 p 1), duodenal access (4/49 vs 2/14 p 0.61) between the group of patients with LAMS removal after 4 weeks and those removed before 4 weeks.

The three case of bleeding were observed before the 4 weeks while the LAMS obstruction happened after 4 weeks.

There was no difference in term of PFC location (head 3/4 vs body-tail 1/4 p 0.15), PFC size bigger than 80 mm (1/4 vs 3/4 p 0.31), use of LAMS with calibre bigger than 15 mm (4/4 vs 0/4 p 0.32), access from the stomach (4/4 vs 0/4 p 1), LAMS dilation (2/4 vs 2/4 p 0.23), LAMS indwelling more than 4 weeks (4/4 vs 0/4 p 0.57) and the rate of adverse events occurrence.

No difference in term of mean age (61 ± 13vs 59 ± 14 p 0.85) and mean time of LAMS persistence (158 ± 137 vs 79 ± 95p 0.28) and the AE's happening.

Conclusions LAMS removal > 4 weeks appears to be as safe as LAMS removal within 4 weeks. Delayed removal is sometimes necessary in patients with significant pancreatic necrosis with minimal clinical success at 4 weeks and these data support this approach.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP054 Sequential vs Simultaneous Intervention in Multiple Infected Pancreatic Necrotic Collections in Patients with Acute Necrotizing Pancreatitis: A Randomized Trial

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DOI 10.1055/s-0044-1782753

Aims Minimally invasive step-up approach is the recommended modality of treatment in patients with infected pancreatic necrosis (IPN). Majority of patients with pancreatic collections are having a single IPN, however, some patients with necrotizing pancreatitis have multiple IPNs. In such scenario, whether drainage of all collections simultaneously has better clinical outcome compared to draining collections sequentially as per clinical response has not been explored earlier. Theoretically, it can fasten the clinical improvement with better outcome, albeit with higher number of interventions. We performed a single center, open label, randomized trial to compare sequential drainage vs simultaneous drainage of multiple IPNs in patients with acute necrotizing pancreatitis (ANP). [1–2]

Methods All consecutive patients of acute pancreatitis with multiple (> 1) confirmed or clinically suspected IPN (size in maximum diameter should be at least 5cm) were screened for inclusion criteria. In simultaneous group (group A), all independent collections were intervened simultaneously using either endoscopic or percutaneous approach depending on feasibility. In sequential group (group B), only collection with larger size or gas configuration was intervened using either endoscopic or percutaneous approach depending on feasibility. Additional interventions in either group were done as per predefined clinical criteria. Primary outcome was the score on Comprehensive Complication Index (CCI) till clinical success. CCI is a comprehensive index which incorporates all the complications according to Clavien-Dindo classification. The score ranges from 0 to 100 with higher score indicating severe complications. Secondary outcomes were number of interventions required for clinical success, new onset organ failure, major disease/procedure related complications and mortality. End-points were analyzed by intention to treat. (CTRI/2022/07/043878)

Results 60 patients with multiple IPNs were enrolled (29 patients in group A and 31 in group B). All patients were having an ongoing SIRS (Systemic inflammatory response syndrome) and 66.6 % patients were having an ongoing organ failure. Mean CCI was 72.48 ± 28.28 in group A and 64.43 ± 34.91 in group B ($p = 0.332$). Mean number of total interventions (endoscopic, radiological and surgical) was lower in group B (4.55 ± 2.21 vs 3.23 ± 2.14; $p = 0.022$ respectively). Development of new onset organ failure (34.5 % vs 38.7 %; $p = 0.734$), pancreatic fistula (13.8 % vs 9.7 %; $p = 0.65$); major bleeding (20.7 % vs 6.5 %; $p = 0.11$); and requirement of surgical intervention (27.6 % vs 22.6 %; $p = 0.655$) were equal amongst both groups. Mortality was also equal amongst both the groups (41.3 % vs 38.7 %; $p = 0.833$).

Conclusions In patients with multiple large IPNs requiring interventions, initially only larger collection or collection with gas configuration should be intervened along with continuation of the supportive treatment. Sequential drainage tailored according to the clinical response has equivalent clinical outcome with fewer requirement of interventions compared to simultaneous drainage of all collections.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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Fine tuning endoscopic esophageal myotomy

25/04/2024, 11:30 – 12:30 Room 10

OP055 Flexible Endoscopic Treatment of Zenker Diverticulum: Not-Operating Room Anestesiology (Nora) Long Term Experience Of A Tertiary Center

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Aims The study aims to investigate the outcomes of Zenker Diverticulum (ZD) endoscopic treatments (septotomy or Z-POEM or POES) accordingly to different anesthesia techniques: deep sedation (DS), with spontaneous breathing, vs orotracheal intubation (IOT). In particular if ZD treatment under DS can result in non-inferior outcomes compared to IOT.

Methods The study was carried out in tertiary center (Humanitas Research Hospital) from 1st January 2015 to 1st November 2023 analyzing all endoscopic Zenker procedures included in a prospective registry (CE: IRB n2248). Procedure outcomes (recurrence rate and severe adverse events as bleeding, perforations, aspiration pneumonia) were analyzed based on the different anesthesiologic management (IOT vs deep sedation). The outcomes of the procedure were adjusted using logistic regression technique for Zenker dimensions, patients age and procedure lasting. All elderly patients (>85), with a very short septum (<1.5 cm) and/or ASA3 were submitted to IOT.

Results A total of 491 ZD endoscopic treatment were collected. Of these, 462 patients (93.6 %) received DS while only 29 were treated with IOT. The mean procedure duration was 23.9 minutes ± 12.8 minutes in DS group and 27.9 ± 11.39381 in IOT group (p = 0.1362). Globally 11 severe AEs (2.4 % 5 perforations, 5 bleeding and 1 pneumotorax) were observed, 9 in the DS group and 2 in the IOT group, (6,8 %, 1 perforation, 1 bleeding). We reported 93 cases of recurrence (20.1 %) in DS group and 8 in IOT group (25.8 %). Not significant differences in severe AEs rate (OR: 3.09, p: 0.17, 95 % CI: 0.60-15.7) and recurrence rate (OR: 0.61, 95 % CI: 0.50-5.1, p: 0.41) were observed when comparing the two group, with the analysis adjusted for patient age, procedure duration, septum diameter. All recurrences and AEs, irrespectively from the type of anesthesia, were managed endoscopically.

Conclusions Our data justify the use of DS for the endoscopic management of ZD, with similar results in terms of safety and efficacy in DS vs IOT, in a tertiary setting with high expertise in both anesthesiology and therapeutic endoscopy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP056 A multicentre retrospective cohort study to compare the safety and efficacy of zenker per-oral endoscopic myotomy, flexible diverticulotomy, and rigid diverticulotomy for the management of zenker's diverticulum

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Aims A Zenker diverticulum (ZD) is a herniation of the posterior pharyngeal wall, which is characterised by oropharyngeal dysphagia and regurgitation. Treatment aims to dissect the muscular septum of the cricopharyngeus to create a common cavity with the oesophageal lumen. Historically the main treatment has been surgical, but minimally invasive flexible endoscopic options have emerged as highly successful and safe treatments with the perceived advantage of a more precise and complete myotomy. However, there is no consensus on the gold-standard approach with limited data comparing techniques. We conducted a UK-based retrospective cohort study comparing the safety and efficacy of Zenker per-oral endoscopic myotomy (Z-POEM), flexible diverticulotomy (FD), and rigid surgical diverticulotomy (RD) for management of ZD.

Methods Patients undergoing treatment for ZD at three UK tertiary referral centres by three expert operators were identified and retrospectively analysed between 2015-2023. Patient demographics, clinical and technical success, length of stay, and 30-day adverse events were recorded. The primary outcomes were technical success, and clinical success, which was defined as fall in Dakkak and Bennett (DB) dysphagia score to ≤ 1 (or 0 if the pre-treatment score was 1) without need for repeat intervention. Data was analysed using chi-squared, ANOVA, or Kruskal-Wallis test depending on data type and distribution. P value < 0.05 was significant.

Results In total, 126 patients had endoscopic treatment (50 RD, 31 FD, 45 Z-POEM) and 11 surgical myotomy (including failed RD). There was no significant difference between age, sex, co-morbidity, pouch size, or DB score before intervention. Technical success for RD, FD, and Z-POEM was 80 %, 100 %, and 100 %, respectively (P < 0.001). Clinical success for RD, FD, and Z-POEM was 85.3 %, 74.1 %, and 83.7 %, respectively (P = 0.48). The pooled median follow-up was 6.5 months (IQR 2-14) with no significant difference between groups. Adverse events for RD, FD, and Z-POEM occurred in 10.3 %, 6.7 %, and 6.8 %, respectively (p = 0.82). On logistic regression analysis, no variables were predictive of clinical success. Among those having surgical myotomy, the technical success was 100 %, but median inpatient stay was 2 days (IQR 1-2), clinical success was 36.4 % (median follow-up 9 months; IQR 3-13), and three adverse events occurred (27.3 %).

Conclusions ZD can be effectively managed by Z-POEM, FD, or RD with equivalent rates of success during follow-up. The technical success of RD was significantly lower than flexible techniques, which often led to an open myotomy that is associated with poor clinical outcomes. Consequently, minimally invasive flexible techniques could be considered primary therapy for ZD, which offer better access, more control, high technical and clinical success, and low adverse events.

Conflicts of interest RH has received educational grants to support research infrastructure from Cook Medical, Odin Vision, Pentax Medical, Endogastric Solutions, Apollo Endosurgery, Medtronic, Aqua Medical

OP057 Endoscopic vs. surgical myotomy in patients with idiopathic achalasia – five-year follow-up of a randomised trial

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DOI 10.1055/s-0044-1782756

Aims Endoscopic myotomy (POEM) was shown equally effective as laparoscopic Heller myotomy (LHM) in patients with achalasia at two years in a multicenter randomized trial. Postprocedural reflux esophagitis and treatment with acid inhibitors were more frequent after POEM. Here we report treatment success rate and analysis of post-procedural reflux at the five-year follow-up.

Methods In a multicenter, randomized trial, we compared POEM with LHM plus Dor's fundoplication in patients with symptomatic achalasia. The primary end point was clinical success, defined as an Eckardt symptom score of 3 or less without the use of additional treatments at the 5-year follow-up. Secondary end points included esophageal function (manometry, pH-metry), Gastrointestinal Quality of Life Index score, rate of reflux esophagitis and its complications and proportion of patients on proton pump inhibitors.

Results A total of 221 patients were randomly assigned to undergo either POEM (112 patients) or LHM plus Dor's fundoplication (109 patients). Five-year follow up data was available in 90 POEM and 86 LHM patients. Clinical success rate at the 5-year follow-up was 75.0 % (95 % CI: 66.2 % to 82.1 %) in the POEM group and 70.8 % (95 % CI: 61.7 % to 78.5 %) in the LHM group. The difference of 4.2 % (95 % CI: -7.5 % to 15.7 %) indicates non-inferiority of POEM at the pre-defined 12.5 % margin. Decrease in integrated relaxation pressure of the lower esophageal sphincter at 5 years did not differ between the treatment groups (difference, 0.9 mm Hg; 95 % CI, -4.3 to 6.3), nor did improvement in the score on the Gastrointestinal Quality of Life Index (difference, -0.3 points; 95 % CI, -8.1 to 6.9). At 5 years, 41.3 % of patients (26/63) in the POEM group and 31.0 % of patients (18/58) in the LHM group had endoscopic reflux esophagitis (LA C or D 4.8 % in the POEM group, n = 3, and 3.4 % in the LHM group, n = 2). The difference between POEM and LHM was not significant (10.2 %, 95 % CI: -7.0 % to 26.8 %, p = 0.26). At 5 years, 53.4 % (47/88) of patients after POEM vs. 38.8 % (33/85) after LHM were administered PPIs (difference 14.6 %, 95 % CI: -0.3 % to 28.8 %, p = 0.07). In those patients in whom gastroesophageal reflux was measured by pH-metry, pathological reflux was significantly more frequent after POEM (51.1 %, 23/45) than after LHM (22.2 %, 8/36), difference 28.9 % (95 % CI: 7.7 % to 47.3 %), p = 0.01. Complications such as peptic stricture or Barrett's esophagus were not reported.

Conclusions In this randomized trial, POEM was noninferior to LHM plus Dor's fundoplication in controlling symptoms of achalasia at 5 years. Gastroesophageal reflux was common in both groups, with a tendency of higher rates among POEM patients in some parameters. (Funded by the European Clinical Research Infrastructure Network and others, ClinicalTrials.gov number NCT01601678).

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP058 Sling-fiber preservation POEM and post-POEM GERD symptoms

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DOI 10.1055/s-0044-1782757

Aims Peroral endoscopic myotomy (POEM) is standard treatment for achalasia. Gastroesophageal reflux disease (GERD) after POEM has been a limiting factor with this procedure. Preservation of the sling fiber during POEM was reported to reduce post-POEM GERD in Japan, but there are no reports of this technique in a western population. The aim is to investigate the association of sling-fiber preservation during POEM and post-POEM GERD symptoms at our institution, which is a large therapeutic endoscopy referral center in Canada.

Methods This is a retrospective, single-center study of patients who underwent POEM from October 2017 to January 2023 at our center. The initial cohort of patients were treated by conventional POEM until June 2021, after which a second cohort underwent POEM with sling-fiber preservation, as the techniques advanced. The primary outcome was the rate of positive GERD symptoms after POEM. The secondary outcomes were procedure time, gastric myotomy length, clinical success rate (Eckard score of less than 3), adverse events rate, use of PPI at follow-up. Multivariate regression was performed to identify factors that reduce post-POEM GERD symptoms. The model included the following factors, which were reported as risk factors for post-POEM GERD: age, gender, IRP, barium type, degree of esophageal dilation, and gastric myotomy length.

Results 148 POEM cases (52.5 ± 15.6 y/o, female:61(43 %)) were included in this study. There was no significant difference in patient characteristics between the groups. The mean procedure time (108.6 ± 34.5 vs 109.1 ± 45.7 min, P = 0.93) and rate of adverse events requiring intervention (13.5 % vs 12.2 %, P = 0.36) were similar between the traditional and modified groups. In the sling-fiber preservation group, gastric myotomy length was significantly longer (2.2 ± 0.7 vs 1.6 ± 0.8 cm, P < 0.05) yet the GERD symptom rate at follow-up was significantly lower (22.4 % vs 42.3 %, P < 0.05), although PPI use was similar (52.2 % vs 47.9 %, P = 0.73). Finally, the clinical success rate was similar between groups (89.5 % vs 83.1 %, P = 0.32). Regression analysis indicated that, after adjusting for other risk factors of post-POEM GERD, sling-fiber preservation during POEM had an odds ratio of 0.24 (95 % CI:0.07-0.85, P < 0.05) for post-POEM GERD symptoms.

Conclusions Sling-fiber preservation during POEM is safe and reduces post-POEM GERD symptoms, and it stands as an independent factor in reducing post-POEM GERD symptoms. As such, sling-fiber preservation may be a useful solution to reduce post-POEM GERD in Western populations.

Conflicts of interest CWT – Speaker: Medtronic and Boston Scientific, Consultant: Boston Scientific. GRM – Consultant for Olympus. Speaker: Pentax, Fuji and Medtronic.

OP059 Successful procedure of POEM is improved using two submucosal injection solutions

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DOI 10.1055/s-0044-1782758

Aims POEM is the first choice of treatment for esophageal achalasia and has been performed worldwide. In Japan, we recommend the preservation of the gastric oblique muscle for the prevention of post-POEM GERD, which requires the reliable creation of a submucosal tunnel into the lesser curvature of the stomach. We developed a technique in which indigocarmine additive solution and carbazochrome sodium sulfonate additive solution are injected into the submucosal layer, and a submucosal tunnel is reliably created into the lesser curvature of the stomach guided by the color difference between the two solutions.

Methods Patients who underwent initial POEM for esophageal achalasia and EGJ outflow obstruction between November 2019 and October 2023 were included. We conducted a prospective study to confirm the efficacy of POEM with two injection solutions (TIS group) as historical control in POEM cases performed by conventional methods (Control group). The primary endpoint was the success rate of submucosal tunnelling, and the secondary endpoints were operation time, incidence of adverse events, and symptoms after POEM including GERD. Successful tunnelling was evaluated to reach the gastric lesser curvature properly by the double scope method.

Results Twenty-four patients in the Control group and 30 patients in the TIS group were included. The success rate of submucosal tunneling was significantly higher in the TIS group than in the Control group (100 % vs 75 %, p < 0.01), and in all patients in the TIS group, a submucosal tunnel was reliably created in the lesser curvature of the stomach. There was no difference in operation time

(Control: 93.5min vs TIS: 88.0 min, p = 0.16), nor in the rate of adverse events (12.5 % vs 10.0 %, p = 1). The adverse events were pneumonia in 1 patient and mucosal injury in 2 patients in both groups, and there were no drug-related adverse events. The postoperative Eckardt score improved significantly in both groups (Control: 0.5 [0 -3] vs TIS: 1 [0 -3], p = 0.80), and there was no difference in the incidence of Grade ≥ B GERD after POEM (37.5 % vs 30.0 %, p = 0.58). In cases of inadequate submucosal tunneling, there were more cases of previous surgical treatment (p < 0.01) and longer operation time (p < 0.01). [1]

Conclusions POEM using two submucosal injections was more effective in stabilizing the procedure than the conventional method, and there were no drug-related adverse events in the TIS group, indicating no safety problems. Myotomy to the lesser curvature of the stomach by the double-scope method in both groups may have contributed to no difference in post-POEM GERD.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP060 Endoscopic peroral myotomy and septotomy (D-POEM) in the treatment of symptomatic pulsatile epiphrenic esophageal diverticula: a new gold standard?

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DOI 10.1055/s-0044-1782759

Aims Esophageal epiphrenic diverticula (EED) are rare, developing in the lower 1/3 and in 60 % of cases associated with a motor disorder. They cause disabling symptoms such as dysphagia, chest pain and regurgitation, sometimes with weight loss and pulmonary inhalation. The historical treatment is surgery, which remains morbid (30 %) or even lethal (5 %). Peroral endoscopic myotomy (POEM) is a gold standard for treating achalasia, and submucosal septotomy is performed in Zenker. We therefore propose to evaluate it in the treatment of EED.

Methods This is a monocentric retrospective observational series in an expert center. All patients managed by D-POEM (diverticular POEM) for a confirmed symptomatic EED (dysphagia/regurgitation) were included. Diagnosis was confirmed by esophagogram and upper endoscopy, and high-resolution manometry (HRM) was performed to research associated motor disorders.

Procedures were performed on intubated patients, with antibiotic prophylaxis, and standardized including diverticular septotomy and circular esogastric (EGJ) myotomy.

Patients were assessed by an Eckardt score and weight evolution at 6 months and 1 year minimum. The primary objective was to assess clinical efficacy, defined as a reduction in Eckardt score > 50 %. Secondary objectives were to document the impact on weight and complications (AGREE classification).

Results 24 patients with follow-up > 6 months and mean age 71 ± 12 years were included between 2017 and 2023. All presented with dysphagia associated with regurgitation. Thirteen patients had weight loss (mean 7kg ± 2kg), including 3 under parenteral nutrition. Diagnosis was made by esophagogram in 19 patients, by endoscopy alone in five. HRM was recorded for 15 patients, showing achalasia in 53 % and hypercontractile esophagus in 6.7 %. The mean preoperative Eckardt score was 7 ± 2.

Mean follow-up was 21 ± 15 months. Clinical efficacy at 6 months was achieved in 79 % (19/24) with a mean Eckardt score of 1 ± 2 and consistent weight regain. Among the failures, two had second procedure for additional EGJ myotomy (with success), two had dilatation(s) for associated fibrotic stenosis, and one was lost during follow-up.

The complication rate was 20.8 % (n = 5), all non-severe: 3 had a sepsis treated with antibiotics (AGREE II), one had spontaneously resolved bleeding (AGREE II) and one had chest pain (AGREE I).

Four patients had a recurrence between 14 and 30 months, of whom three had en ReDo POEM, one had successful pneumatic dilatation.

Conclusions D-POEM is an effective and much safer alternative to surgery in the management of symptomatic pulsion EED, despite a little more technically complex procedure to perform.

Conflicts of interest Pr. Barthet and Pr. GOnzalez: consultant for Boston scientific, Fuji and Taewong

Oncological outcomes of endoscopic resection

25/04/2024, 11:30 – 12:30 **Room 6 & 7**

OP061 Impact of inter-laboratory variation in detection of lymphovascular invasion (LVI) on treatment and oncological outcomes of T1 colorectal cancer (CRC) patients: a Dutch nationwide cohort study

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Aims Lymphovascular invasion (LVI) plays an important role in determining the risk of lymph node metastasis (LNM) in T1 colorectal cancer (CRC) patients. The presence or absence of LVI guides treatment decisions and subsequently influences patient outcomes. However, the extent to which inter-laboratory variation in LVI detection affects treatment patterns and oncological outcomes is unclear. This study aimed to assess the impact of variation in detection of LVI among Dutch laboratories on the treatment and oncological outcomes of patients with T1 CRC.

Methods Pathology reports and clinical data of T1 CRC patients who underwent local resection between 2015 and 2019 were obtained from the Dutch nationwide pathology databank (Palga cohort). Laboratories were categorized as low, average, or high detectors based on their LVI detection rates. The impact of LVI detection practice on the rate of surgical resection after local resection and the proportion of lymph node metastasis-negative (LNM-) surgeries was evaluated. Second, the Dutch T1 CRC Working Group cohort, which includes extensive follow-up data, was used to assess the effect of LVI detection practice on the proportion of cancer recurrences in T1 CRC patients who did not undergo completion surgery. Multivariable logistic regression analyses and Cox proportional hazards regression were employed to study the association between LVI detection practice and the selected outcomes.

Results The Palga cohort consisted of 5,518 locally resected T1 CRCs. LVI detection rates varied among the pathology laboratories, ranging from 8.0 % to 43.9 %. Patients diagnosed in laboratories with a high LVI detection rate (> 22.4 %) exhibited significantly higher rates of surgical resection after local resection of T1 CRC compared to those diagnosed in laboratories with a low detection rate (adjusted odds ratio [aOR] 1.88; 95 % confidence interval [CI] 1.52-2.32). Similarly, the proportion of LNM- surgeries was significantly higher in patients diagnosed in high LVI detection laboratories (aOR 1.73; 95 % CI 1.39-2.15). Within the Dutch T1 CRC Working Group cohort, which included 1268 locally resected T1 CRCs, no significant difference was observed in the occurrence of cancer recurrences among patients diagnosed in laboratories with high detection rates compared to those with low detection rates (adjusted hazard ratio [aHR] 2.23; 95 % CI 0.94-5.23).

Conclusions This study shows that a higher LVI detection rate does not lead to improved oncological outcomes and suggests that a greater number of patients are unnecessarily exposed to the potential side effects of oncological surgery. These findings emphasize the importance for clinicians to possess a comprehensive understanding of how LVI was detected and the factors influencing the pathologist's conclusions. By doing so, clinicians can weigh the actual risk of lymph node metastasis against the risk of surgical morbidity and mortality, while considering the individual preferences of the patient.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP062 Distant metastasis after treatment of pT1 colorectal carcinomas

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Aims For decades, lymph node metastases (LNM) were considered to be stepping stones for distant metastasis (DM) in submucosal invasive colorectal cancers (T1 CRCs). Despite completion surgery, DM still developed in 2-4 % of T1 CRCs, suggesting a direct route of metastases. Extensive research has been performed to identify risk factors to predict LNM. However, data on the relationship between these risk factors, DM and survival are very limited. The aim of this study was to investigate risk factors for DM in T1 CRCs, and how this affects CRC specific survival (CSS).

Methods In a large cohort of consecutive T1 CRCs treated between 2000 and 2017 in 21 Dutch hospitals the proportion of DM, together with 3-year overall survival (OS), CSS, and adverse event-free survival (AFS) were determined. AFS was defined as having no DM and no CRC treatment related death. Risk factors for these outcomes were analyzed with cox proportional hazard models. Multiple imputation was used for missing data. High-risk pT1 CRC was defined as the presence of lymphovascular invasion (LVI), high-grade differentiation, and/or positive (R1)/unassessable (Rx) resection margin.

Results A total of 3812 T1 CRCs patients were included (mean age 69 years, 41 % female, 18 % ASA III/IV, 61 % non-pedunculated), with a total median follow-up time of 51 months (IQR 23 – 64). After oncological resection, LNM were detected in 223/2099 (10.6 %) patients. DM were observed in 134/3812 (3.5 %) patients during follow-up. After surgery, 53/76 (69.7 %) patients with DM showed no LNM, of whom 29/53 (54.7 %) had 1-9 LNs resected and 24/53 (45.3 %) had ≥ 10 LNs resected. In multivariate analysis, non-pedunculated morphology (HR 1.52, 95 % CI 1.01 – 2.27), size > 40 mm (HR 2.52, 95 % CI 1.31 – 4.84), present LVI (HR 1.96, 95 % CI 1.19 – 3.23), high-grade differentiation (HR 2.27, 95 % CI 1.22 – 4.21), and ≥ 10 resected lymph nodes (HR 0.58, 95 % CI 0.36 – 0.94) were independently associated with distant metastases. The 3-yrs OS, CSS and AFS were 92.3 % (95-CI 89.3 – 95.4 %), 97.9 % (95-CI 94.8 – 100 %), and 96.5 % (95-CI 93.4 – 99.6 %) respectively. CRC-specific mortality (126/3812; 3.3 %) was determined by the development of DM (73/3812; 1.9 %) and treatment-related death (53/3812; 1.4 %). The 3-yrs AFS did not differ between the high risk pT1 CRCs who had follow-up versus surgery (556/579 (96.0 %) vs 765/800 (95.6 %), HR 0.93, 95 % CI 0.51 – 1.69 after adjusting for ASA score, age, LVI, differentiation grade, gender, location, and non-pedunculated morphology).

Conclusions As 70 % of DM after surgery developed in pT1N0 patients, this study provides support that an accountable proportion of DM may develop via a direct route instead of via the lymph nodes. In this study, CRC specific mortality of pT1 CRCs was related to the development of distant metastasis (1.9 %), but also to treatment-related deaths (1.4 %). With a similar 3-yrs AFS between high risk pT1 CRC patients with follow-up or surgery, the benefit of resecting the draining lymph nodes is questionable.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP063 Salvage Endoscopic Submucosal Dissection After Chemoradiation For Locally Advanced Rectal Adenocarcinoma – Two-year Follow-up

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Aims The standard treatment of locally advanced rectal cancer is chemoradiation (CRT) followed by proctectomy. However, given an emerging role for nonsurgical management after CRT, endoscopic submucosal dissection (ESD) after CRT, termed salvage ESD, may be an option for carefully selected patients. We aimed to evaluate the long-term clinical outcomes of salvage ESD compared to surgical proctectomy after CRT for locally advanced rectal cancer.

Methods A retrospective chart review of cases of salvage ESD and proctectomy after CRT for locally advanced rectal cancer from January 2018 to May 2021 at our institution were reviewed. After a careful multidisciplinary discussion after completion of CRT, patients were selected for either standard surgical proctectomy or salvage ESD. Demographics, disease characteristics, procedural reports, pathology reports, and two-year clinical follow-up data were collected between the two groups. Demographic and patient characteristics were compared between the ESD and the proctectomy groups using the Wilcoxon Mann Whitney U test for continuous variables; Chi-square test or Fisher Exact test for categorical variables, as appropriate. Time-to-recurrence and time-to-disease-related mortality were presented in Kaplan-Meier analysis.

Results 19 Salvage ESD cases were compared with 49 proctectomy cases. Demographics and patient characteristics were similar between the two groups. More advanced lesions, such as those with larger pre-CRT ($p < 0.05$) and post-CRT sizes ($p < 0.05$), were more likely to undergo surgical resection. R0 resection was higher in the proctectomy group at 89.8 %, compared to 68.4 % in the salvage ESD group ($p < 0.05$), although most of the post-resection lesions in the salvage ESD group were no longer adenocarcinomas after CRT. Complication rates were low and similar ($p = 1.00$). Recurrence rates with two-year follow-up were similar at 26.3 % in the salvage ESD group and 34.7 % in the proctectomy group (HR 1.02 (0.36-2.87)). Disease-related mortality with two-year follow-up was 20.4 % in the proctectomy group while none in the salvage ESD group.

Conclusions In carefully selected patients with locally advanced rectal cancer who demonstrate clinical response to CRT, such as decrease in lesion size and downsizing of tumor staging, salvage ESD is a viable nonsurgical option to evaluate for complete pathological response and to treat the residual adenoma, allowing for rectal preservation. Despite lower R0 resection with salvage ESD,

most lesions that were selected for salvage ESD contained specimens that were adenomas and no longer adenocarcinomas. Two-year follow-up of clinical outcomes showed similar recurrence rates as the proctectomy group.

Conflicts of interest Makoto Nishimura is a consultant for Boston Scientific and Olympus America Mark A. Schattner is a consultant for Boston Scientific, Novo Nordisk, and Mirai Medical. Galen Leung is a consultant for Boston Scientific, Steris, Mirai Medical, and AI Medical ServiceJulio Garcia Aguilar is an honorarium and stock owner from intuitive surgical

OP064 Deep learning and High-Resolution Anoscopy: development of an interoperable algorithm for the detection and differentiation of anal squamous cell carcinoma precursors – a multicentric study

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Aims High-resolution anoscopy (HRA) plays a central role in the detection and treatment of precursors of anal squamous cell carcinoma (ASCC). The visual characterization of high-grade intraepithelial lesions (HSIL) is hampered by a limited interobserver agreement. Artificial intelligence (AI) algorithms have shown high levels of efficiencyin detecting and differentiating HSIL from low-grade squamous intraepithelial lesions(LSIL) in HRA images. Nevertheless, these studies have been conducted using a digital videoproctoscope, whose use is not predicted in the standards of the International Anal Neoplasia Society (IANS). Our aim was to develop a deep learning system for automatic detection and differentiation of HSIL versus LSIL using HRA images from both conventional and digital proctoscopes.

Methods A convolutional neural network (CNN) was developed based on 151 HRA exams from 137 patients undergoing HRA at two large volume centres (GH Paris Saint-Joseph, Paris, France and Emílio Ribas Infecciology Institute, São Paulo, Brazil),using conventional HRA (KLP 200 LED, Kolplast) and digital HRA (THDProctostation, THD SpA). A total of 58,498 images were included, 29,212 imagescontaining HSIL and 29,286 LSIL. Partial subanalyses were performed to evaluate the performance of the CNN in the subset of images with no staining (n = 2,820),acetic acid (n = 27,191), lugol (n = 10,011), and after treatment of the anal canal(n = 11,047). For these subanalyses, training, and testing datasets comprised 80 % and 20 % of each class total number of images. The sensitivity, specificity, accuracy,positive and negative predictive values, and area under the curve (AUC) were calculated.

Results The overall accuracy of the CNN in distinguishing HSIL from LSIL during the testingstage was 94.6 %. The algorithm had an overall sensitivity and specificity of 93.6 % and 95.7 %, respectively. The overall AUC was 0.97. For staining with acetic acid,HSIL was differentiated from LSIL with an overall accuracy of 96.4 %, while for lugol and after therapeutic manipulation these values were 96.6 % and 99.3 %,respectively. The AUC ranged between 0.98 and 1.00.

Conclusions The introduction of AI algorithms to HRA may enhance the early diagnosis of ASCC precursors, and this system showed to perform adequately across conventional and digital HRA interfaces. Improving the detection of ASCC precursors may improve the treatment outcomes and prognosis. The developed system is capable of performing adequately across different systems available on the market. [1–5]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP065V Submucosal-bulge sign as an endoscopic predictor of a colonic mucinous adenocarcinoma

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Abstract Text Colonic mucinous adenocarcinomas (CMAC) are commonly diagnosed at an advanced stage, though, their management and prognosis still remain controversial. We report the case of a 59-years-old man who underwent a screening colonoscopy. A 18mm sessile lesion was found in the sigmoid colon showing a regular surface and vascular pattern. This lesion presented a remarkable submucosal cushion, although no prior submucosal injection was done. En-bloc underwater endoscopic mucosal resection was performed, and a large mucous lake was found along the resection margin. Histological examination revealed a tubulovillous adenoma with a buried pT1 mucinous adenocarcinoma infiltrating the vertical margin. In conclusion, the CMAC might appear with a submucosal-bulge aspect, which was not previously described. Identifying this endoscopic sign may determine its management. [1–2]

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/39619bcd-78fe-4b20-b790-01fed1a2085b/Uploads/13821_V7_(unicolor)%20Submucosal-bulge%20sign%20as%20an%20endoscopic%20predictor%20....mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP066 Medium-term oncological outcomes following endoscopic full-thickness resection for T1 colorectal cancer: results from the Dutch prospective colorectal eFTR registry

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Aims Endoscopic full thickness resection (eFTR) is increasingly used as a minimally invasive diagnostic and potential therapeutic approach for smaller (≤2cm) T1 colorectal cancer (CRC). EFTR enables transmural resection, providing optimal histological risk assessment and complete (R0) resection, even in deep submucosal invasive cancer (D-SMIC). However, follow-up (FU) outcomes have not yet been described. This study aims to describe the medium-term oncological outcomes of eFTR for T1CRC.

Methods All consecutive eFTR procedures for suspected T1CRC enrolled in the Dutch prospective eFTR registry from November 2015 to November 2023 were analysed. Superficial submucosal invasive cancer (S-SMIC) was defined as sm1, D-SMIC as sm2-3. High-risk T1CRC was defined by the presence of lymphovascular invasion, budding grade 2-3, poor differentiation or tumour-positive resection margins (<0.1mm). Deep submucosal invasion was not considered an independent risk factor according to the Dutch CRC guideline. Oncological surveillance comprised endoscopy with or without imaging, as per guideline/local protocol, and depending on histology. Outcomes included R0 resection rate, cancer recurrence, 3-year disease-free survival (DFS) and 3-year overall survival (OS).

Results In total, 556 patients with suspected T1CRC were included (median age 73 years, 58 % male, median lesion size 15mm). Histology confirmed pT1 in 333 (60 %) patients, including 78 (25 %) S-SMIC and 250 (75 %) D-SMIC, ≥pT2 in 119 (21 %) patients, and non-invasive histology in 104 (19 %) patients. R0 resection rates were 94 % for S-SMIC and 89 % for D-SMIC, with no significant differences for colon vs rectum or lesion size (≤15mm vs 16-20mm). Histopathology revealed risk factors in 140 (42 %) T1CRCs, leading to completion surgery (CS) in 77 (55 %) patients, with 12 (16 %) having residual cancer (2 endoluminal, 10 nodal), all with ≥2 risk factors. At least 1 FU visit was recorded for 235 T1CRC patients, with a median FU of 42 months (IQR 34), 2 endoscopies (0-7) and 1 imaging procedure (0-7). The FU cohort was divided into low-risk T1CRC with surveillance (n = 122), high-risk T1CRC with surveillance (n = 51) and CS (n = 62). In the low-risk group, cancer recurred in 2/122 (2 %); 1/44 (2 %) S-SMIC with distant metastases, and 1/78 (1 %) D-SMIC with a positive lymph node treated with salvage surgery. In the high-risk group, cancer recurred in 3/51 (6 %); 1 local lymph node treated with salvage surgery and 2 distant metastases. In the CS group, distant metastases occurred in 4/62 (7 %), all without curative options. 3-year DFS and 3-year OS were 98 % and 91 % for the low-risk surveillance group, 95 % and 83 % for the high-risk surveillance group, and 94 % and 97 % for CS group.

Conclusions EFTR is an efficient first-line treatment for T1CRC ≤2cm, demonstrating high R0 resection rates for both S-SMIC and D-SMIC. Furthermore, eFTR allows organ preservation in a large proportion of patients, with low cancer recurrence rates over a median FU of 42 months.

Conflicts of interest Authors do not have any conflict of interest to disclose.

New developments in the diagnosis of pancreatic solid lesions

25/04/2024, 11:30 – 12:30 **Room 11**

OP067 Comparative diagnostic performance of endoscopic ultrasound-guided fine needle aspiration (EUS-FNA) versus endoscopic ultrasound-guided fine needle biopsy (EUS-FNB) for tissue sampling of solid pancreatic and non-pancreatic lesions without ROSE: a prospec

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Aims Endoscopic ultrasound-guided tissue acquisition, including both fine needle aspiration (EUS-FNA) and fine needle biopsy (EUS-FNB), has been widely performed to obtain samples from pancreatic and non-pancreatic lesions. The impact of the diagnostic yield between FNA and FNB remains unclear. We conducted this study to compare the diagnostic performance and accuracy of the 22-gauge FNA needles with the 22-gauge FNB needles in sampling solid pancreatic and non-pancreatic lesions.

Methods This is a prospective multicenter study conducted on 465 cases presented with solid pancreatic or non-pancreatic lesions.

Results Patients were 275 male and 190 females with a mean age of 59 years. Three hundred twenty-seven patients had solid pancreatic lesions, while 138 had non-pancreatic lesions; 245 cases underwent EUS-FNA, and the remaining 211 cases underwent EUS-FNB. The presence of intact tissue core and sample adequacy were significantly higher in the FNB cases in solid pancreatic and non-pancreatic lesions. Blood contamination was significantly more in cell blocks and smears of EUS-FNA compared to that of EUS-FNB in solid pancreatic and non-pancreatic lesions. Based on histologic assessment of cell block only, EUS-FNB had more diagnostic accuracy (99 %) than FNA (61 %) (P-value<0.005). However, cytological diagnosis by smears only showed no significant difference. The combined cytological and histological evaluation had 100 % sensitivity, specificity, and accuracy

Conclusions EUS-FNA and EUS-FNB have comparable accuracy in diagnosing solid pancreatic and non-pancreatic lesions without ROSE. EUS-FNB is superior to EUS-FNA in acquiring intact tissue core and adequate samples with little blood contamination. Based on histological assessment (cell block/tissue core) only, EUS-FNA has less accuracy than EUS-FNB in diagnosing solid pancreatic lesions.

Conflicts of interest FNA versus FNB

OP068 Diagnostic performance of the newly developed endoscopic ultrasound visualization technique for low velocity blood flow in pancreatic ductal adenocarcinoma

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DOI 10.1055/s-0044-1782767

Aims Detective flow imaging using endoscopic ultrasound (DFI-EUS) is a novel imaging modality for low-velocity blood flow. The diagnostic criteria or performance in pancreatic ductal carcinoma (PDAC) have not been reported yet. This study aimed to identify the accuracy of DFI-EUS in diagnosing PDAC.

Methods Data of patients who underwent DFI-EUS (ARIETTA 850; FUJIFILM Healthcare, Tokyo, Japan) for the evaluation of pathologically diagnosed pancreatic solid tumours at our institute between January 2022 and April 2023

were analysed retrospectively. Still images of DFI-EUS were digitally recorded and all tumours were initially evaluated for vascularity in four stages: avascular, hypovascular, isovascular, and hypervascular, by three endosonographers. If vascularity was detected within the tumour, it was then classified into "heterogenous" or "homogeneous", and the vascular morphology was classified as "irregular" or "regular". The final decision on the characteristics of the vascularity was made when two or more of the three endoscopists agreed. Univariate analysis for PDAC was performed to each DFI-EUS findings. Based on those results, a DFI-EUS diagnostic algorithm for PDAC was created, and its sensitivity, specificity, and accuracy were evaluated.

Results The pathological diagnoses of 55 pancreatic tumours were PDAC (*n* = 37), NET (n = 10), and mass-forming pancreatitis (n = 8). Among patients with avascular (n = 7), hypovascular (n = 26), isovascular (n = 16), and hypervascular (n = 6) DFI-EUS findings, the proportion of PDAC was 100 % (n = 7), 76.9 % (n = 20), 56.3 % (n = 9), and 16.7 % (n = 1), respectively. Among pancreatic tumours with vascularity (n = 48), the proportion of PDAC was 89.5 % (n = 17) and 44.8 % (n = 13) for heterogenous and homogenous pattern distribution, respectively, and 100 % (n = 7) and 56.1 %(n = 23) for irregular and regular pattern vessels, respectively. In the univariate analysis, avascular, heterogenous, and irregular vascularity patterns were significantly associated with the diagnosis of pancreatic adenocarcinoma. The odds ratios were 9.10 (95 % confidence interval [CI]: 0.50-168.76; $P < 0.05$) for avascular, 10.5 (95 % CI: 2.03-53.8; $P < 0.005$) for heterogenous, and 11.81 (95 % CI: 0.63-220.44; $P < 0.05$) for irregular patterns. Therefore, the DFI-EUS diagnostic algorithm for PDAC was defined as positive when avascular, heterogenous, or irregular vascularity was detected. The sensitivity, specificity, and accuracy of PDAC using this algorithm were 75.7 % (95 % CI: 58.8–88.2 %), 88.9 % (95 % CI: 65.3–98.6 %), and 80.0 % (95 % CI: 67.0–89.6 %), respectively.

Conclusions DFI-EUS is a valuable and promising method to diagnose PDAC. Nevertheless, these results must be validated externally in a future study.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP069 Diagnostic performance of EUS-guided shear wave elastography (SWE) for differential diagnosis of solid pancreatic lesions: EDEN

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Aims EUS elastography (EUS-E) is a noninvasive EUS image enhancement technique assessing tissue elasticity. Qualitative or semi-quantitative EUS-E has proved useful for the characterization and differential diagnosis of solid pancreatic lesions (SPLs), demonstrating good sensitivity, but low specificity in a large meta-analysis [1]. EUS-shear wave elastography (SWE), is a new technique, allowing a quantitative measurement of tissues elasticity, by measuring the speed of SW propagation(velocity), generated by acoustic radiation force within the tissue. SW speed correlates with tissues elasticity: propagation is faster in hard tissue than in soft tissue, as the sound wave loses energy as it passes through soft tissue.

The aim of this study was to evaluate the feasibility of EUS-SWE assessment of SPLs elasticity and the diagnostic performance of EUS-SWE for the differential diagnosis of SPL.

Methods Prospective study conducted in 2 tertiary centers, having prospectively and consecutively included between September 2021 and September 2023 patients with undetermined nature SPLs (NCT 04851106). Exclusion criteria were: -cystic tumor or solid tumor with cystic component > 25 %; -usual contraindication for EUS-guided fine needle biopsy (EUS-FNB). All procedures were performed using linear echoendoscope Olympus UCT-180 and Arietta 850 (Hitachi-Aloka) unit. The lesion explored in B- and SWE modes (10 measurements of SW velocity, Vs (m/s), and elasticity E (kPa) in the target lesion), followed by EUS-FNB. Final diagnosis was based on pathological examination, obtained by EUS-FNB, or surgery or, in the absence of histological evidence, on 12-month follow-up (FU).

Results 112 patients were included (58 men, 54 women, median age 69 years (IQR, 61-77)) in the analysis. At EUS, the median size of the lesion was 30 (IQR, 20-40) mm, localized in the pancreatic head (55 %), body (33 %), tail (22 %), neck (18 %) or uncinate process (6 %). The final diagnosis was adenocarcinoma (ADK) (76), neuroendocrine tumor (NET) (26), pancreatitis nodule (2), other malignancy (8). The mean Vs and E of PSLs were: – 2.27 and 13.90 for ADK; 2.03 and 14.20 for NET; 3.94 and 46.47 for mass-forming pancreatitis; 2.04 and 14.20 for other malignancy. No significant differences were observed between groups or between benign and malignant lesions (p values > 0.25).

Conclusions Our study showed no significant difference between the Vs and E values of the different SPLs. Further studies are needed to standardize the EUS-SWE procedure and determine its usefulness for the characterization and differentiation of SPLs.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP070 The use of quantitative contrast-enhanced endoscopic ultrasound in the evaluation of pancreatic neuroendocrine tumors: Can we move from quality to quantity?

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DOI 10.1055/s-0044-1782769

Aims Contrast enhanced EUS (CE-EUS) is a pivotal tool for the diagnosis of pancreatic focal lesions, especially for pancreatic cancer (PC) and pancreatic neuroendocrine tumor (pNEN).

The enhancement after contrast medium injection is usually assessed qualitatively, although dedicated software has recently been developed that provides an objective quantitative assessment using perfusion parameters. The aim of this study is to evaluate quantitatively the enhancement of pancreatic solid lesions at CE-EUS

Methods - Quantitative analysis of tumor vascularization was performed with a commercially available software (Vuebox).

- Time-intensity-curves (TIC) were created and several parameters were evaluated including the average contrast signal intensity (MeanLin), peak enhancement (PE), rising time (RT), fall time (FT), time to peak (TTP), mean transit time (mTT), Wash-in Area Under the Curve (WiAUC), Wash-in Rate (WiR), Wash-in Perfusion Index (WiPI), Wash-out Area Under the Curve (WoAUC), Wash-out Rate (WoR), and WiAUC + WoAUC (WiWoAUC).

- Univariate and multivariate analysis were conducted. Patient-level and tumor-level characteristics were evaluated.

Results Seventy-three patients (51 PC and 22 pNET) who underwent CE-EUS and EUS-guided fine needle aspiration (EUS-FNA) were included.

Univariate analysis showed that several parameters (PE, WiR, WiAUC, WiPI, WoAUC and WiWoAUC) were statistically significantly associated with pNET. At univariate analysis pNETdiameter was associated with mTT($p < 0.001$)

Conclusions Quantitative enhancement evaluation in CE-EUS is still at dawn but in the future it could potentially predict early tumor behavior and drive therapeutic choices.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP071 EUS-FNA versus EUS-FNB in pancreatic solid lesions ≤ 15 mm

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DOI 10.1055/s-0044-1782770

Aims The diagnostic performance of endoscopic ultrasound-guided tissue acquisition (EUS-TA) for diagnosis of solid pancreatic lesions (SPLs) may be impacted by small tumor size. We aimed to compare the diagnostic yield of EUS-guided fine-needle aspiration (FNA) and biopsy (FNB) in SPLs with a diameter ≤ 15 mm.

Methods Consecutive patients who underwent EUS-TA for SPLs ≤ 15 mm between January 2015 and December 2022 in a tertiary referral center were retrospectively evaluated. Primary endpoint was diagnostic accuracy. Final diagnosis was based on surgical pathology or disease evolution after a minimum follow-up of 6 months. ROSE was never available. Inadequate samples were all considered as false negative for the study purpose. Secondary outcomes included sample adequacy, factors impacting accuracy, and safety. Moreover, the feasibility of Ki-67 index in the subgroup of patients with pancreatic neuroendocrine tumours (Pan-NETs) was evaluated.

Results We included 368 patients (male, 52.4 %; mean age 60.2 years) who underwent FNA in 72 cases and FNB in 296. The mean size of SPLs was 11.9 ± 2.6 mm. 93 (25.3 %) patients underwent surgery. A benign condition was eventually diagnosed in 13.9 % of cases, whereas a malignant lesion in 84.8 %, including 206 PanNETs, 73 pancreatic adenocarcinoma and 26 metastases. FNB outperformed FNA in terms of diagnostic accuracy (89.8 % vs 79.1 %, p = 0.013) and sample adequacy (95.9 % vs 86.1 %, p < 0.001). On multivariate analysis, use of FNA (OR 2.25, 95 % CI 1.10-4.56) and a final diagnosis (OR 3.34, 95 % CI 1.62-6.86) of benign conditions negatively impacted accuracy. Overall, adverse event rate was 0.8 % , including one pancreatitis in FNA group, one pancreatitis and one bleeding in the FNB group, all mild and conservatively managed. Overall, an adequate sample from PanNETs was collected in 196/206 cases. Ki-67 index evaluation was feasible in 185 out of 196 lesions (94.3 %) without differences among the two groups (90.0 % in the FNA group vs 95.5 % in the FNB group, p = 0.239)

Conclusions EUS-TA for SPLs ≤ 15 mm has a high diagnostic yield and safety. This study suggests a superiority of FNB over FNA with a better performance even with a lower number of passes performed.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP072 Feasibility and Effectiveness Comparative Analysis of Standard Endoscopic Ultrasound vs Novel Adaptable Endoscopic Ultrasound Probe Evaluation: A Multi-Institutional Prospective Study

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DOI 10.1055/s-0044-1782771

Aims EndoSound Vision System (EndoSound, Oregon, USA) is a new EUS (N-EUS) portable probe that fastens onto a standard gastroscope. We aim to determine the feasibility and effectiveness of N-EUS in terms of anatomical structures appropriate identification in comparison with conventional-EUS.

Methods This prospective study included patients ≥ 18 years-old undergoing EUS evaluation in June-November/23 by 8 endoscopists from different institutions from South and North America. Patients underwent two consecutive procedures: First, a conventional EUS with a linear-array echoendoscope (Pentax EG38-J1OUT, Pentax Medical, Germany). Then, a different endoscopist performed EUS using the N-EUS coupled to a gastroscope with therapeutic access (EG29-i10, Pentax Medical, USA). A post-procedure ad-hoc survey was completed by the second endoscopist to assess N-EUS acceptability as per endoscopists' experience using the device.

Results 31 patients underwent conventional EUS and N-EUS: 16/31 performed by first-time N-EUS users, 15/31 by endoscopists with prior N-EUS exposure, with median procedural times of 30 and 15 minutes, respectively ($p = .04$). Main EUS indication was chronic dyspepsia (35.5 %). Identified structures during N-EUS were the liver/gallbladder/common bile duct (30/31, 96.8 %), full pancreas (29/31, 93.5 %), kidneys/left kidney (24/31, 77 %; 13/15 users with prior exposure vs 11/16 first-time N-EUS users; $p < .001$), left adrenal gland (20/31, 64.5 %). Gallbladder (GB) was unobserved in 8 cases, 7/8 had prior cholecystectomy. Evaluation position was 54.8 % supine; 3/31 switched to left lateral. All procedures were completed with 100 % clinical/technical success, requiring navigation changes in 51.6 %, mainly first-time N-EUS users ($p = .001$). FNB tissue sampling was achieved in 100 % cases. Endoscopists' experience was mainly described as "*meeting clinical expectations*". An ad-hoc survey showed high psychometrics, with homogeneity and without redundancy (Cronbach's alpha of .91), and a good construct validity (Kaiser-Meyer-Olkin Criterion of .728 and Barlett's test *p*-value = .0005). When comparing both procedures, appropriate identification of GB or lack of, full pancreas, left/both kidneys and left adrenal gland was 31/31 vs 30/31, 31/31 vs 29/31, 31/31 vs 24/31 ($p = .0233$), and 29/31 vs 20/31 ($p = .0158$), respectively. Considering conventional EUS as a gold standard, the observed agreement of N-EUS to identify these structures were 96.8 %, 93.5 %, 77.4 % and 64.5 %, correspondingly. Observed agreement for kidneys and left adrenal gland increased when sub-analyzing the cases assessed by endoscopists with prior N-EUS exposure: 81.2 % and 76.9 %, respectively. [1–3]

Conclusions N-EUS is a safe, effective, and feasible tool for EUS evaluation, with high acceptability by endoscopists. Prior ex-vivo training may be warranted for first-time N-EUS users.

Conflicts of interest Carlos Robles-Medranda is a key opinion leader and consultant for Pentax Medical, Boston Scientific, Steris, Medtronic, Motus, Micro-tech, G-Tech Medical Supply, CREO Medical, EndoSound, and mdcons-group. All other authors declare no conflicts of interest.

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WEO Joint Session: Assessing Post Colonoscopy Colorectal Cancers (PCCRCs)

25/04/2024, 11:30 – 12:30 **Auditorium**

OP313 Significant Missed Polyps in Bowel Cancer Screening Programme Patients in the Cheshire Region of the UK

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Aims Colorectal cancer (CRC) is the second-biggest cause of cancer deaths in the UK. Currently, bowel cancer screening is offered to everyone aged 60-75 years via a Faecal Immunochemical Test (FIT). Those receiving an abnormal result are offered a colonoscopy. Pre-malignant polyps are responsible for the majority of CRCs. Patients at highest risk were those with ≥ 2 polyps and at least one ≥ 10mm of any grade dysplasia. The effectiveness of colonoscopies can, however, often be challenged by the occurrence of missed polyps. This retrospective review looks at the incidence of polyps ≥ 10mm relative to the overall number of missed polyps in Bowel Cancer Screening Patients (BCSP) in the Cheshire region of the UK.

Methods A retrospective analysis of BSCP screening data in the Cheshire region in the UK from 2020 to March 2023 was conducted. The first screening colonoscopy was set as the Index Colonoscopy following an abnormal FIT test, and a polyp was considered missed if it was first detected after this. A significant polyp was a polyp ≥ 10mm. The inclusion criteria included patients (54-75 years) who had had an Index Colonoscopy followed by site checks, repeats, or planned polypectomies. The exclusion criteria consisted of those who, at Index Colonoscopy, had either a failed test, or a normal result, and those who had cancers or surgical referrals following Index Colonoscopy. It also excluded those who were out of surveillance undergoing symptomatic service management, and the deceased. Statistical methods including logistic regression and trend analysis were employed to identify patterns and trends associated with missed polyps and significant missed polyps. [1–7]

Results Out of 2759 index colonoscopies, 261 (9 %) met our criteria and 23 (9 %) of these had significant polyps. Of the 261 (179 men), the missed polyp rate was 30 % (453/1531 polyps). The overall significant missed polyp rate was 2 % (24/1531). 5 % (24/453) of missed polyps were significant polyps. 71 % of the significant polyps were also found in the left of the colon. Men had a higher missed polyp rate (22 %) compared to women (7 %) (RR = 2.56, 95 % CI: 2.1-3.13, p < 0.0001). They also had a higher significant missed polyp rate (1.1 %) compared to women (0.4 %) (RR = 2.41, 95 % CI: 1-5.8, p < 0.05). 50 % of the bowel prep at Index Colonoscopy was rated as 'Adequate/fair' and 79 % of bowel prep at the discovery of the significant polyp was rated as either 'Excellent' or 'Good' (OR = 3.8, 95 % CI: 1.07-13.5, p < 0.05). 96 % (22/23) of the significant polyps found were either TA LGD or TVA LGD and none were found to be cancerous.

Conclusions Almost a third of all polyps detected were missed and one in twenty of these were significant polyps, putting these patients in the high-risk group for CRC. This highlights the importance of improving practice to reduce the miss rates and decrease CRC risk. Emphasis on bowel prep at index colonoscopy, position change during procedure, the use of antispasmodics, and the introduction of AI in polyp detection could aid in reducing missed polyps.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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Finding the right way: Challenges in patients with altered anatomy

25/04/2024, 14:00 – 15:00 **Room 6 & 7**

OP085 Two-step ERCP with colonoscope and duodenoscope in patients with surgically altered anatomy: early experience from a retrospective cohort study

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Aims ERCP in patients with surgically altered anatomy (SAA) is one of the most challenging endoscopic procedures. For patients in whom cannulation cannot be achieved with a colonoscope, we placed a tube with the tip near the papilla/anastomosis, and the end out of patient's mouth; a duodenoscope was then inserted following tube placement to finish ERCP in the same session. The aim of the current study was the evaluation of feasibility and safety of two-step ERCP (▶ **Figure 1**) for biliopancreatic interventions in patients with SAA.

Methods Patients with SAA receiving two-step ERCP at a single endoscopic reference center were retrospectively enrolled between January 2016 and June 2023.

Results 58 patients (20 female, 38 male), median age 58 years (range 43-88) and biliary (n = 45) and pancreatic (n = 13) indications for two-step-ERCP were enrolled. Types of surgical reconstruction: Roux-enY n = 47, Billroth II with Braun anastomosis n = 11. Technical success rates for intubation, cannulation and interventions were 94.8 %, 85.5 % and 100 %, respectively. Overall two-step-ERCP-success rate was 77.6 %. One major complication occurred (1.7 %; intestinal perforation during intubation).

Conclusions The current study showed for the first-time feasibility and safety of two-step-ERCP with colonoscope and duodenoscope in SAA patients at an expert center. This data justifies further evaluation of this new technique preferably in a prospective multicenter trial.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP086 Enteroscopy-assisted ERCP versus EUS-antegrade intervention for Stones and/or Strictures in patients with Roux-en-Y Hepaticojejunostomy: A Tertiary Center Comparison

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DOI 10.1055/s-0044-1782774

Aims Although PTC and enteroscopy-assisted ERCP (e-ERCP) are often preferred for bile duct access in patients with hepaticojejunostomy (HJ) and Roux-en-Y reconstruction, these approaches are plagued by either relatively high morbidity or suboptimal effectiveness respectively. EUS-guided antegrade intervention (EUS-AI) of HJ strictures and/or stones has been suggested as a safe and effective alternative by creating an easily re-accessible portal to the biliary tree, although limited comparative data are available. Our aim is to compare EUS-AI with e-ERCP for HJ strictures and/or stones.

Methods A tertiary single-center retrospective analysis was performed of all consecutive EUS-AI procedures in patients with hepaticojejunostomy and Roux-en-Y reconstruction from 2019 to May 2023. Patients with actively underlying malignancy, Billroth-II reconstruction, Roux-en-Y gastric bypass or a naïve papilla were excluded. EUS procedures were performed using EUS-guided hepaticogastrostomy with fully-covered SEMS placement (fc-SEMS) at the index procedure, followed by SEMS extraction, balloon dilation and cholangioscopy if required. Primary outcome was technical success, defined as the successful completion of desired steps with stricture dilation and/or stone removal with subsequent stenting. Secondary outcomes were adverse events (based on the AGREE classification) and procedure duration.

Results Thirty-five patients were included, of which 16 were treated with EUS-AI and 19 had undergone e-ERCP. In both groups, the majority of patients had a history of pancreatoduodenectomy with Roux-en-Y hepaticojejunostomy (68.8 % vs. 79 %, p = 0.700). Technical success was similar in both groups (87.5 % vs. 73.7 %, p = 0.415), with two failures in the EUS group due to insufficient bile duct dilation and five failures in the e-ERCP group due to inability to cannulate the HJ (n = 2) or access the afferent limb (n = 3). Overall adverse event rates were similar (4 [25 %] vs. 2 [10 %], p = 0.379), with two grade I (pain) complications occurring in the EUS group and two grade II (cholangitis) in the e-ERCP group. Index procedure duration was significantly shorter in the EUS group (46 [31-60] vs. 72 [IQR 41-98] min, p = 0.016) and hospital stay was similar (7.5 [1-12] vs. 1 [1-7] days, p = 0.347). After a median follow-up of 448 days (IQR 164-644) vs. 694 days (IQR 236-1288, p = 0.204), a numerical difference in recurrence rates was seen (1 [6.3 %] vs. 4 [21.1 %], p = 0.347), based on restenosis in all cases. As expected due to preplanned reinterventions, more reinterventions were performed in the EUS group (3 [0-4] vs. 0 [0-2] procedures, p = 0.021).

Conclusions Our data suggest that EUS-AI is equally safe and effective when compared to e-ERCP in patients with Roux-en-Y HJ, with the advantage of resulting in lower procedure time and facilitating easier biliary re-access as well as cholangioscopy if required. EUS-AI should be regarded as a valuable alternative for patients with postsurgical anatomy.

Conflicts of interest Grants from Boston scientific

OP087 Single-session EUS-directed Transgastric ERCP with a Dedicated Over-the-scope Fixation Device: A Feasibility Study

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DOI 10.1055/s-0044-1782775

Aims EUS-directed Transgastric ERCP (EDGE) has been proposed as a more effective alternative to enteroscopy-assisted ERCP for patients with Roux-en-Y gastric bypass anatomy, overcoming the invasiveness of laparoscopy-assisted ERCP. Postponing through-the-LAMS ERCP for 1-2 weeks and employing stent fixation techniques have been suggested to reduce the risk of stent migration. Our aim is to investigate the feasibility of a single-session EDGE using a dedicated over-the-scope fixation device.

Methods A tertiary single-center retrospective analysis of prospectively collected data was conducted on all consecutive single-session EDGE procedures performed with the dedicated Stentfix device (Ovesco Endoscopy AG, Tuebingen, Germany). Only 20x10mm LAMS were utilized, and all cases between September 2022 and October 2023 were included. The primary outcome was LAMS migration, while key secondary outcomes included adverse events (of any kind) and technical success, defined as the successful achievement of through-the-LAMS ampullary access during a single session using a duodenoscope. Adverse events were graded using the AGREE classification.

Results Eleven patients were identified, with a mean age of 56 years (SD ± 11.7), and a female predominance of 63.6 %. All patients had classic Roux-en-Y gastric bypass anatomy and underwent ERCP for various reasons: bile duct stones (n = 7, 63.6 %), cholangitis (n = 2, 18.2 %), and post-cholecystectomy leaks (n = 2, 18.2 %).

No LAMS migrations occurred, and technical success was achieved in 10 out of 11 patients (90.9 %). After a median follow-up time of 97 days (IQR 29-231), one adverse event (grade I) was reported, involving postprocedural pain which resolved following administration of mild opioid analgesia and subsequent removal of the stent.

The median procedure time was 45 minutes (IQR 41-51). The median LAMS dwell time was 29 days (IQR 21-53), and the majority of fistulae (75 %) were closed immediately after LAMS removal, using an over-the-scope clip. The median body mass change during LAMS implantation was + 2kg (IQR 0-2).

Conclusions While acknowledging that factors such as the endoscopist's experience, LAMS orientation, and a larger stent size (20mm vs 15mm) cannot be definitively excluded as contributing elements, our data strongly suggest that the utilization of a dedicated over-the-scope stent fixation device prevents LAMS migration during the same-session EDGE

Conflicts of interest Boston scientific study grants

OP088V Antegrade ERCP via EUS-guided LAMS-jejunoduodenostomy in Roux-en-Y subtotal gastrectomy (RYSG) facilitated by mapping EUS-pancreatography

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DOI 10.1055/s-0044-1782776

Abstract Text Introduction: EUS imaging of the duodenum during transenteric ERCP is challenging after RYSG.

Case: RYSG patient with large CBD stone confirmed during EUS-cholangiography by extrahepatic bile-duct puncture. Antegrade stone removal was not possible. EUS-guided transenteric anastomosis with LAMS was planned for biliary access. Small bowel anatomy was confusing on EUS. However, after EUS-guided pancreatography, contrast outflow into duodenum allowed mapping, EUS targeting and 19G-needle puncture for luminal distention before freehand 20x10mm LAMS placement from jejunum distal to surgical GJ into duodenal stump. ERCP with stone clearance were uneventfully achieved.

Comment: Single-session transjejunal antegrade ERCP via LAMS is an option in RYSG.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/69022b1e-28fc-4bfc-a536-c57950653b89/Uploads/13821_ESGE_24_YeyunoDuodenostomi%CC%81a_con%20pancreatografi%CC%81a.mov

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP089 Endoscopic biliary drainage in patient with Surgically-alTeREd anaTomy: the STREeT multicenter Italian study

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Aims Endoscopic biliary drainage (BD) in patients with altered anatomy is a challenging scenario, reducing the chance of clinical success compared to standard anatomy. The choice between different BD approaches is still not standardized and relies on local availability and expertise. Aim of this study was to explore the approach to BD in patients with altered anatomy in different Italian centers, including the number of attempts.

Methods this was a retrospective multicenter cohort study within the i-EUS network of biliopancreatic endoscopy. All adult patients with upper GI altered anatomy who underwent endoscopic BD for any indication in the last 5 years were enrolled. Surgical reconstruction were divided in Billroth II patients (including those with pancreatoduodenectomy) and Roux-en-y patients (including those with hepaticojejunostomy). Fisher's exact test and Mann-Whitney test were used when appropriate.

Results 19 centers participated in the study. All centers were equipped for interventional endoscopic ultrasound (EUS) whereas only 6 centers had also the availability of device-assisted enteroscopy (DAE). 360 patients were enrolled. Indication to BD was not different between patients with Billroth-II (B-II, N = 231) or Roux-en-Y (RY, N = 120) reconstructions. 19 % of patients had at least one previous failed BD attempt. B-II anatomies were more frequently managed transpapillary with a duodenoscope or a forward viewing scope (86.3 %), whereas in case of RY reconstruction BD approach was more heterogeneous. In 58 % of RY cases, a retrograde approach was performed (in > 50 % of cases with standard scopes). Among the 20.1 % undergoing EUS-BD in RY patients, hepaticogastrostomy or antegrade stenting were performed in 71 % of cases mostly for malignant indications (90 %). Type of surgical reconstruction did not affect the clinical success (86 % in BII and 82 % in RY, p = ns). Interventional EUS tended to higher clinical success compared to DAE (94 % vs 81 %, p = 0.07). The total number of procedures to achieve clinical success was similar between B-II and RY patients. Patients who failed endoscopic BD for whom follow-up was available, were managed by PTBD or surgery in 71 % and 15 % of cases respectively.

Conclusions Endoscopic BD in altered anatomy has a sub-optimal clinical success compared to standard anatomy. A relevant proportion of patients requires more than one endoscopic attempt to achieve the clinical success. Despite the recent advent, interventional EUS is optioned in many centers and demonstrated a high efficacy in patients with altered anatomy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP090 Comparison of different ERCP techniques following Roux-en-Y gastric bypass: a systematic review and meta-analysis

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DOI 10.1055/s-0044-1782778

Aims Performing endoscopic retrograde cholangiopancreatography (ERCP) in patients with Roux-en-Y gastric bypass (RYGB) anatomy represents a real challenge for endoscopists. The most widely used options for ERCP in these cases are enteroscopy-assisted ERCP (EA-ERCP), laparoscopy-assisted ERCP (LA-ERCP), and endoscopic ultrasound-directed ERCP (EDGE). Our aim is to compare EA-ERCP, LA-ERCP, and EDGE in terms of safety and efficacy by performing a systematic review and meta-analysis.

Methods The protocol was registered beforehand with PROSPERO (ID: CRD42022368788). We systematically searched three medical databases, namely MEDLINE (via PubMed), Embase, and Cochrane CENTRAL, to look for studies investigating EA-ERCP, LA-ERCP, or EDGE. We performed indirect comparison to compare the interventions based on comparative and single-arm studies. Proportions were calculated by pooling together event rates with 95 % confidence intervals (CI). Differences between interventions were considered significant if $p < 0.05$. Random-effect model was used to pool effect sizes.

Results In total, 67 studies were included (2,714 patients). The technical success rate was 78 % (CI: 0.71-0.83) for EA-ERCP, 93 % (CI: 0.9-0.95) for LA-ERCP, and 96 % (CI: 0.92-0.98) for EDGE with total heterogeneity (I^2) 0 %. Subgroup differences were significant between EA-ERCP and EDGE or LA-ERCP groups, $p < 0.05$. The clinical success rate was 65 % (CI: 0.58-0.73) for EA-ERCP, 92 % (CI: 0.89-0.94) for LA-ERCP, and 93 % (CI: 0.88-0.97) for EDGE, I^2 : 18 %, $p < 0.05$. Overall adverse event rates were 12 % (CI: 0.7-0.21), 19 % (CI: 0.14-0.24), and 20 % (CI: 0.12-0.31), respectively with I^2 : 60 %, p = 0.343.

Conclusions EA-ERCP performed poorly compared to LA-ERCP and EDGE regarding technical and clinical success rates, with no significant difference in adverse event rates. Our results question he role of EA-ERCP in the RYGB population.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Red alert! Managing Upper GI Bleeding

25/04/2024, 14:00 – 15:00 Room 8

OP091 Sarcopenia as a Prognostic Factor in Peptic Ulcer Bleeding: A Comprehensive Analysis of 7-day and 30-day Mortality Risks

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Aims Peptic ulcer disease represents a leading cause of non-variceal gastrointestinal bleeding (NVGIB). With an increasing elderly population, the prevalence of sarcopenia is rising. Although sarcopenia is known to influence the prognosis of various gastrointestinal diseases, its association with the clinical outcomes of peptic ulcer bleeding (PUB) has not been extensively studied. This study aims to investigate the correlation between sarcopenia and PUB, as determined by the psoas muscle index (PMI).

Methods We retrospectively analyzed 2,050 patients who underwent esophagogastroduodenoscopy for suspected gastrointestinal bleeding between January 2014 and December 2021. PMI was defined by the value, calculated as the total psoas area normalized by the square of the patient's height. Patients who had undergone abdomino-pelvic computed tomography scans were included for evaluation of sarcopenia based on PMI. Sarcopenia was defined using specific cutoffs: ≤ 7.3 cm^2/m^2 for men and ≤ 5.1 cm^2/m^2 for women. The primary outcome was the 30-day mortaility rate.

Results Of the 358 patients assessed, 149 were identified as having sarcopenia. Patients with sarcopenia were significantly older (72.6 ± 14.2 vs. 62.6 ± 16.4 years, $p < 0.001$). There was a significant difference in ulcer location, with a higher prevalence of gastric ulcers among those with sarcopenia (47.7 % vs. 28.7 %, $p < 0.001$). Although the success rate of endoscopic hemostasis was lower in patients with sarcopenia, the difference was not significant (41.6 % vs. 47.8 %, $p = 0.289$). Regarding bleeding severity, patients with sarcopenia exhibited significantly higher scores in various bleeding scores: Post-Rockall score (5.4 ± 2.0 vs. 4.7 ± 2.0, $p < 0.001$), Glasgow–Blatchford bleeding score (12.1 ± 4 vs. 10.7 ± 4.6, $p = 0.003$), and ABC score (5.0 ± 2.7 vs. 3.7 ± 2.6, $p < 0.001$). Additionally, the 30-day mortality rate was significantly higher in patients with sarcopenia than in those without sarcopenia. Multivariate regression analysis identified sarcopenia, a high ABC score (≥ 10), and use of inotropic agents an independent predictors of 30-day mortality. [1–3]

Conclusions The presence of sarcopenia in patients with PUB is associated with a heightened 30-day mortality rate. There was also a significant increase in mortality among those with high ABC scores and who receive inotropic agents. Therefore, for patients with PUB accompanied by sarcopenia, shock, or exhibiting a high ABC score, close monitoring and the implementation of aggressive treatment strategies become crucial in improving patient prognosis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP092 Successful Technical Approach with Very Low Recurrence Rate after Endoscopic Ultrasound-guided Coils Deployment and Cyanoacrylate Embolization of Gastric Varices: An Eight-year Real World Study

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DOI 10.1055/s-0044-1782780

Aims Even though gastric varices (GV) are less frequently encountered than esophageal varices, they are associated with severe bleeding. We aim to target the feeder vessel or afferent component displaying novel therapeutic approach comprising a combined application of cyanoacrylate (CYA) and coils. This approach intended to address the vascular pathology of GV with enhanced precision and efficacy.

Methods A single-center, prospective registry was conducted during July/2015-October/2023. Enrolled patients included adults ≥ 18 years old considered for primary or secondary prophylaxis of gastro-esophageal varices (GOV) II and isolated GV (IGV) I. First, the location of the feeder vessel was determined by angiography using a 10 ml water-soluble contrast. Subsequently, using a FNA needle, coils were EUS-guided deployed (10-20 mm coiled diameter, 14-20 cm straight lengths, 0.035 inches diameter), followed by CYA injection (2-Octyl-CYA). The number of deployed coils and injected CYA was documented. Outcomes were technical success, immediate disappearance, complete obliteration, recurrence rate, recurrence free survival (RFS) and recurrence management.

Results Over eight-years, 167 patients underwent EUS-guided coils and CYA: 49.7 % females, median age of 63 years, 19 % alcohol-related cirrhosis. Child Pugh B and C was estimated in 65.9 % and 18 % of patients, respectively. Most common previous therapies included B-blockers (32.3 %), band ligation (26.9 %), and CYA (21.0 %). GV treatment was intended as secondary prophylaxis in 88.6 %. More than one feeder vessel was targeted in 38.9 %. In 67.7 % of cases up to three coils were required, with a median injection of 3.6 ml of CYA. A 100 % technical success was achieved. Among the 167 patients, 8.9 % experienced recurrence, with a median RFS of 4.9 months. When comparing non-recurrence vs recurrence patients, immediate disappearance was noticed in 69.7 % vs 40.0 % with white light endoscopy ($p = 0.039$) and complete obliteration in 90.1 % vs 73.3 % during EUS ($p = 0.072$), respectively. Immediate disappearance was a significant predictive factor for non-recurrence (OR 0.29; IC 95 % 0.09 – 0.85; $p = .026$), with a 95 % positive predictive value. All recurrences were managed with EUS-guided coils and CYA (9/15) and clips and CYA (6/15), with a 12/15 non-recurrence rate. On multivariate analysis, a lower recurrence was associated with previous B-blockers therapy (OR 0.18; 95 % CI 0.02 to 0.78; $p = .045$), while a previous CYA attempt represented a high-risk factor for recurrence (OR 10.2; 95 % CI 1.08 to 110; $p = .044$). [1–3]

Conclusions EUS-guided coils and CYA in feeder vessels have shown high technical success and low recurrence rate in treating IGV I and GOV II. CYA attempts should be misadvised in GV. Non-immediate disappearance requires shorter follow-ups to assess for early recurrence.

Conflicts of interest Carlos Robles-Medranda is a key opinion leader and consultant for Pentax Medical, Steris, Medtronic, Motus, Micro-tech, G-Tech Medical Supply, CREO Medical, EndoSound, and mdconsgroup. All other authors declare no conflict of interest.

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OP093 Over-the-scope-clips reduce rebleeding and mortality in upper GI bleeding: Results of a large propensity score matched cohort study

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DOI 10.1055/s-0044-1782781

Aims Non-variceal upper gastrointestinal bleeding (UGIB) remains a common medical emergency with a high mortality rate. Advances in endoscopic therapies have the potential to improve patient outcomes. This study aimed to determine whether use of over-the-scope clips in UGIB has an impact on rebleeding and mortality rates compared to conventional endoscopic treatment.

Methods A prospective database was used to identify consecutive patients that were treated with over-the-scope clip for acute UGIB at a large tertiary centre. A propensity score-matched cohort was then assembled from among the patients who were treated for UGIB over the same time period using conventional endoscopic therapies. Data recorded included patient demographics, the pathology and site of the culprit lesion and the Forrest classification. Statistical analyses were then carried out to compare the outcomes of over-the-scope clip treated patients with those of the control group, in terms of 7- and 30-day rebleeding rates, as well as 30-day mortality. A post-hoc analysis was carried out for over-the-scope clip treated patients with photodocumentation of the deployed clip to determine if post deployment position was a predictor of rebleeding

Results A total of 1023 UGIB episodes were recorded over 5 years. 112 high-risk lesions were treated with over-the-scope clip, and 109 high-risk lesions treated with conventional endoscopic therapy were included in the matched control group. The culprit lesions were located in the oesophagus in 8 %, stomach in 21 % and duodenum in 71 %. The most common cause for UGIB was peptic ulcers (81.5 %). Lesions were classified as Forrest 1a in 18 %, 1b in 27 %, 2a in 32 % and 2b in 23 %.
Over-the-scope clip treated patients demonstrated a significantly lower 7-day (3.1 % vs 19.7 %, P = < 0.01) and 30-day rebleeding rate (6.8 % vs 25.5 %, P = < 0.01) compared to the control group. Haemorrhage-related mortality was also significantly less (1.3 % vs 4.9 %, P = 0.02) in the over-the-scope clip group when compared to patients treated with conventional endoscopic therapies.
Post-hoc analysis of images of the deployed over-the-scope clip showed that visible clip teeth following deployment was associated with rebleeding (OR 6.8, P = < 0.01).

Conclusions Endoscopic treatment with over-the-scope clip significantly reduces rebleeding and mortality rates in UGIB

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP094 Unraveling the Etiology of Upper Gastrointestinal Bleeding, rebleeding Risk and its predictive Factors in a Tertiary Hospital

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DOI 10.1055/s-0044-1782782

Aims Upper gastrointestinal bleeding (UGIB) is a potential medical emergency with diverse etiologies and contributive factors.We aimed to characterize clinical and endoscopic findings, efficacy of hemostasis, duration of hospitalization and hospital mortality in patients admitted with UGIB at a tertiary hospital.

Methods Retrospective evaluation of 224 patients admitted between Jan2018-Dec-2019 with UGIB. We evaluated clinical presentation, comorbidities, antiplateles/anticoagulantes (ACO) use, hemodynamic compromise, intensive care unit (ICU) admission, etiology of UGIB, efficacy of hemostatic methods, duration of hospitalization and mortality. Qualitative variables were compared with Chi-square and Fisher's tests. Non-normal distribution quantitative variables were compared with Mann-Whitney test.

Results Median age was 67 years (18-97) with 173 (77 %) males. At admission, 112(50 %) patients had hemodynamic compromise. The primary symptoms were melena in 89 (40 %) and hematemesis in 79 (35 %). At least one comorbidity was documented in 168 (75 %) patients: diabetes in 71 (32 %) and chronic kidney disease in 48 (21 %). Antiplatelets were used in 62 (28 %), ACO in 44 (20 %), and nonsteroidal anti-inflammatory drugs (NSAIDs) in 31 (14 %). The median Rockall score(RS) and Glasgow Blatchford were 4 (0-10)and 11 (2-19). A higher RS was associated with prolonged hospitalization(p = 0.024). Early endoscopy (< 24h)was performed in 158 (71 %) patients. At least 1 cause for UGIB was documented in 220 (98 %). Etiologies of UGIB were peptic ulcer 146(65 %), rupture of esophageal varices in 31 (13.8 %). Cerebrovascular disease (p = 0.037) and NSAIDs' use (p = 0.041) were associated with peptic ulcer bleeding. Endoscopic hemostasis was performed in 156 (70 %).Thermal methods were used in 68 cases (44 %), mechanical in 41 cases (26 %), and combination of both in 9 cases (6 %). Band ligation was carried out in 31 (20 %) and cyanoacrilate in 3 patients (2 %). Adrenaline injection alone was used in 2 (1 %) and hemospray in 2 cases (1 %). Second-look endoscopy was performed in 26 (12 %) patients, of which 5(19 %) received additional treatment.Rebleeding was documented in 22 (14 %) (peptic ulcer-15; variceal rebleeding-4; angiodysplasias-3).Rebleeding was more frequent in oncological disease (p = 0.049) and chronic respiratory disease (p = 0.04). Second-look endoscopy didn't prevent it (p = 0.591).Mortality rate was 12.1 % (27) and median hospitalization time was 7 days (1-106). In logistic regression, chronic liver disease (p = 0.005), oncological disease (p = 0.009), NSAIDs, (p = 0.034), alcohol abuse (p = 0.043) and UCI admission (p = 0.042) were associated to high in-patient mortality.

Conclusions UGIB was more frequent in males, with 2/3 of patients having comorbidities. Peptic ulcer was the primary cause of UGIB. Although endoscopic hemostasis has an efficacy of 86 % oncological and chronic respiratory diseases are risk factors for rebleeding. Chronic liver disease, oncological disease, NSAIDs, ICU admission were associated with higher mortality.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP095 Bleeding severity and timing to endoscopy: is there any effect for the death risk? A prospective multicentre cohort study

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DOI 10.1055/s-0044-1782783

Aims The aim of the study is to evaluate if the interaction between bleeding severity and timing-to-endoscopy could impact on the death risk

Methods A prospective multicentre cohort study, including all consecutive patients with upper gastrointestinal bleeding admitted to 50 Italian hospitals was conducted. Charlson's *comorbidity index* and ASA scores were used to define the patients' performance status. According to the previously cited clinical items, we defined bleeding severity (BS) and graded it in low, intermediate, and high-risk classes depending on the presence and the number of items at the time of admission. Timing to endoscopy was defined according to ESGE * guidelines and was divided into 4 time-frames (<6h; 6/12h; 12/24h; >24h).

Results 2,525 patients were included (mean age 68 [±15.8], male 67.3 %); the bleeding was non-variceal in 82.3 %. Overall, 176 patients died (6.9 %); 28 (1.9 %) in the low BS group (1,463 patients), 28 (8.6 %) in the intermediate BS group (606 pts) and 96 (21 %) in the high BS group (p<0.000). In our population, the 4-time frames do not impact on the mortality in the low and intermediate classes of risk. In the high BS class, there is an interaction between the time to endoscopy and the mortality, with the lower mortality observed in the 6/12 hrs frame.

Conclusions In our population, the death risk gradually rises as the bleeding severity increases. Bleeding severity identifies 3 different classes of death risk and the time to endoscopy seems unrelated to mortality in low and intermediate BS classes. In the high BS patients, the lower mortality was observed in the timing to endoscopy 6-12 hrs.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP096 Cost-utility analysis of using the haemostatic powder TC-325 as a first-line treatment for malignant upper gastrointestinal bleeds in the United Kingdom

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DOI 10.1055/s-0044-1782784

Aims Haemostatic powder TC-325 is a valuable option for the management of malignant upper gastrointestinal bleeding (MUGIB). Randomised control trial (RCT) data has shown it results in greater immediate haemostasis and lower 30-day rebleeding rates when compared to standard endoscopic therapy (SET). Initial purchase cost for TC-325 can be higher compared with standard endoscopic treatments. We sought to determine if the use of haemostatic powder TC-325 would be cost-effective as a first-line option for MUGIB compared with SET in the United Kingdom.

Methods We developed a decision tree among patients with MUGIB that assessed initial therapy with TC-325 compared to SET to enable a cost-utility analysis. The model was parameterised using published data including a recent RCT to inform initial haemostatic success, rates of rebleed, and quality of life data. Patients with failed initial haemostasis after SET underwent either rescue with TC-325, escalation to interventional radiological embolisation (IRE), or surgery. Initial failure in the primary TC-325 group was followed by use of a second TC-325 canister, IRE, or surgery. The decision tree included a possibility of one rebleed within 30 days following which patients would be treated with repeat endoscopy (matching the treatment arm i.e. no crossover at rebleed), IRE, surgery, or radiotherapy (when other treatment options are not suitable). Overall, 30-day mortality was applied. Results are reported as incremental differences in cost (Great Britain, Pounds) and quality-adjusted life years (QALYs). Scenario analyses were explored and deterministic and probabilistic sensitivity analyses were performed on all costs, transition probabilities and utilities.

Results The total costs of using TC-325 for the treatment of MUGIB was £322 lower than SET over the 30 days, and an incremental increase of 0.012 QALYs. One-way deterministic sensitivity revealed the model was most sensitive to changes in rebleeding rate for SET. However, TC-325 remained cost-saving for all parameter changes. Probabilistic sensitivity analysis revealed that TC-325 has a 92 % probability of being cost-saving.

Conclusions This model indicates that through higher primary haemostasis and lower 30-day rebleeding, TC-325 could be a cost-effective treatment for MUGIB by reducing costly downstream repeat interventions. Despite a complex and nuanced pathway for the treatment of MUGIB, we have shown we can formally model the cost-effectiveness of haemostatic powder TC-325. Uncertainty in this model exists due to limited detail on follow-up actions after haemostatic failure (primary and rebleed), and the occurrence of multiple rebleeds that we could not include in the model. Additional large-scale randomised studies, with detailed treatment follow-up would help inform a more comprehensive model. [1]

Conflicts of interest A.B is a consultant of Cook IncD.C is an employee of Cook MedicalR.H has recieved educational grants for fellowship support from from Cook Endoscopy

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Could EUS-liver biopsy be the new gold standard?

25/04/2024, 14:00 – 15:00 **Room 10**

OP079 Discrepancy Between Endoscopic Ultrasound-Guided Elastography and Transient Elastrography in Assessing Liver Stiffness of Morbidly Obese Patients

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Aims Transient Elastography (TE), is one of the most extensively studied, non-invasive tests (NITs) for liver stiffness measurement (LSM). However, a recent study from our group showed a poor correlation between LSM measured by TE and histology-proven liver fibrosis in obese population due to impeding thicker visceral fat and abdominal wall. Endoscopic ultrasound elastography (EUS-E), a novel adjunct to pre-operative endoscopic evaluation, has advantages to overcome these limitations since the probe can be pressed against the liver capsule transgastrically. This study aimed to assess the correlation between conventional TE and EUS-E in severely obese population.

Methods LSM from EUS-E and TE in patients with class 2 and 3 obesity undergoing pre-operative endoscopic evaluation were collected and analyzed. The correlations between EUS-E and TE (FibroScan) were assessed using Spearman's rank correlation coefficient.

Results 116 LSM (58 EUS-E and 58 TE) from patients with obesity class 2 and 3 were analyzed (mean BMI 45.20 ± 11.16, range 38.60 – 60.05). Overall, there was weak correlation between EUS-E and TE (R = 0.282, P = 0.01). LSM from TE was significantly higher than EUS-E (15.69 ± 12.73 vs 9.58 ± 5.91; p < 0.001). EUS-E had stronger agreement with APRI and FIB4 scores compared to TE [(K = 0.037) vs (K = 0); EUS-E and TE, respectively]. Despite high grade fibrosis from TE, no patients demonstrated endosonographic signs of cirrhotic mor-

phology or portal hypertension. Among patients without significant fibrosis (n = 4), strong correlation of EUS-E and TE was observed only when EUS-E confidence interval cut-off was over 73.5 % (AUC = 0.672(0.462-0.881), sensitivity = 75 %, specificity = 60 %, PPV = 67.1 %, NPV = 68.9 %, accuracy = 67.8 %.

Conclusions LSM from TE in severely obese patients does not correlate well with other NITs and may overestimate true fibrosis. EUS-E offers another mean of LSM that can mitigate the limitation of shear wave propagation in this unique population where an accurate liver assessment is essential pre-operatively. When EUS-E is performed, a confidence interval cut-off of at least 73.5 % should be obtained. Further validation against histology-proven fibrosis is warranted. [1–4]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP080 Endoscopic Ultrasound-Guided Liver Biopsy Quality Compared to Percutaneous and Transjugular Techniques: A Network Meta-Analysis

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Aims Percutaneous liver biopsy (PC-LB) is the gold standard for the study of chronic liver disease. However, it is limited to patients with appropriate clinical and hematological conditions. Transjugular liver biopsy (TJ-LB) represents a less invasive yet less available technique. Endoscopic ultrasound-guided liver biopsy (EUS-LB) has emerged as a minimally invasive readily available technique. To the best of our knowledge, no network meta-analysis has compared LB quality and related adverse events among these techniques.

Methods A systematic search was run in PubMed, Embase, Web of Science and Cochrane. The search included studies from inception to November 2023, in adult patients, which compared at least two of the following techniques: EUS-LB, PC-LB or TJ-LB. The analyzed endpoints were mean total sample length (TSL), mean number of complete portal triads (CPT), rate of appropriate sample for diagnosis, sample fragmentation and major adverse events (hematomas, bleeding, perforation, death). There was no distinction regarding study design, biopsy needle type or assistance with additional imaging methods. The studies with insufficient data, without any reported endpoint, or case series were excluded. The PC-LB was the reference. Data was analyzed in Rv4.0.

Results Over the last thirty years (1993 to 2023), 21 original studies were analyzed being: 18/21 full manuscripts; 15/21 retrospective, 3/21 prospective, 3/21 randomized clinical trials (RCT); 11/21 EUS-LB, 21/21 PC-LB and 16/21 TJ-LB; 5/21 EUS-LB vs PC-LB, 10/21 PC-LB vs TJ-LB, and 6/21 compared the three techniques. We scrutinized 620 EUS-LB patients, 3347 PC-LB, and 1901 TJ-LB. TSL pooled mean for EUS-LB, PC-LB, and TJ-LB was 28.6 ± 10.6 mm, 23.3 ± 13.5 mm, and 15.7 ± 9.0 mm, respectively. Pooled rate of appropriate sample for diagnosis was 96.6 %, 89.2 %, and 85.4 %, with a major adverse events pooled rate of 4 %, 2.9 %, and 3.5 %, respectively. Between 14 studies and 24 pairwise comparisons, TSL EUS-LB mean was 0.17 mm longer (p = .932), but TJ-LB 4.93 mm shorter (p = .0025) (I^2 = 95 %). Between 3 studies and 5 pairwise comparisons, relative risk (RR) of sample fragmentation was significantly higher for EUS-LB (RR 4.55; 95 % CI 2.72 – 7.61; p < .001) and TJ-LB (RR 2.72; 95 % CI 1.54 – 4.80; p < .001) (I^2 = 0 %). There was not significant difference among mean number of CPT (I^2 = 97.3 %), rate of appropriate sample for diagnosis (I^2 = 48.7 %) or major adverse events (I^2 = 10.5 %).

Conclusions EUS-LB quality is comparable to PC-LB and superior to TJ-LB in terms of TSL. These techniques are comparable in terms of the mean number of CPT, rate of appropriate sample for diagnosis, and major adverse events. Further original studies are needed to define the sample fragmentation rate of the aforementioned. [1–3]

Conflicts of interest Carlos Robles-Medranda is a key opinion leader and consultant for Pentax Medical, Boston Scientific, Steris, Medtronic, Motus, Micro-tech, G-Tech Medical Supply, CREO Medical, EndoSound, and mdcons-group. All other authors declare no conflicts of interest.

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OP081 Accuracy and Efficacy of the Endoscopic Ultrasound (EUS) in diagnosing Focal Liver Lesion (FLL), obtaining Liver sampling and Liver Abscess drainage; Meta-Analysis and Systematic Review

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Aims Recently, there has been a surge in the clinical utilization of endoscopic ultrasound (EUS) in hepatology [1]. These applications range from diagnosis to treatment of various liver diseases [2]. Therefore, the current systematic review has summarized the evidence on the diagnostic and therapeutic roles of EUS in liver diseases.

Methods PubMed, Medline, Cochrane Library, Web of Science, and Google Scholar databases were extensively scoured for studies until October 2023. The methodological quality of the eligible articles was performed using the Newcastle Ottawa Scale or Cochrane's Risk of Bias tool. In addition, statistical analyses were performed with the Comprehensive Meta-Analysis software.

Results A total of 45 articles (28 evaluating the diagnostic role and 17 evaluating the therapeutic role of EUS) were included. The pooled analysis demonstrated that EUS diagnostic tests have an accuracy of 92.4 % for focal liver lesions (FLL) and 96.6 % for parenchymal liver diseases. In addition, the cumulative analyses showed that EUS-guided liver biopsies (EUS-LB) with either fine needle

aspiration (FNA) or fine needle biopsy (FNB) have low complication rates when sampling FLL and parenchymal liver diseases (3.1 % and 8.7 %, respectively). Furthermore, analysis of data from four studies has shown that EUS-guided liver abscess (EUS-AD) has a high clinical (90.7 %) and technical success (90.7 %) without significant complications. Similarly, EUS-guided interventions for the treatment of gastric varices (GV) have a high technical success (98 %) and GV obliteration rates (84 %), with low complications (15 %) and rebleeding events (17 %).

Conclusions EUS in liver diseases is a promising technique with the potential to be considered as a first-line therapeutic and diagnostic option in selected cases.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP082 Endoscopic ultrasound-guided right lobe liver biopsy has better tissue yield compared to left lobe liver biopsy: A single-blinded, paired, cross-over trial

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Aims Endoscopic ultrasound-guided liver biopsy (EUS-LB) is a relatively newer modality and is performed by usually targeting the left lobe, although right lobe can be sampled. The standard percutaneous liver biopsy targets the right lobe. Whether EUS-LB targeting the right lobe can yield better tissue or more information would be interesting but lacks data. This study was designed to compare the quality of the biopsy specimen obtained from both the lobes of the liver using EUS guidance.

Methods This is a paired cross-over trial conducted at an academic tertiary care centre in India from June 2023 to November 2023. Consecutive patients requiring liver biopsy were included, after due consent. Pre-procedure work-up including clinical, demographic and laboratory parameters were documented. EUS-LB was carried out under sedation using 19-G FNB needle with wet heparin suction technique. The sequence of the lobe to be sampled was decided using a block randomisation sequence. Each lobe was assessed, trajectory length of the needle was measured and biopsied with single pass and 3-4 actuations. The samples were transferred in separate coded formalin vials and the pathologist was blinded. The primary outcome was the number of complete portal tracts (CPTs). Other parameters analysed included aggregate specimen length, longest specimen length, specimen adequacy and diagnostic adequacy. Diagnostic adequacy was defined as biopsy specimens from which a definitive histological diagnosis can be rendered by the pathologist.

Results A total of 35 patients (21 males; 60 % with mean age of 43.37 ± 20.2 years) were included and 70 liver specimens were analysed. The most common indication for liver biopsy was for evaluation of transaminitis (n = 14; 40 %) followed by autoimmune hepatitis (n = 11; 31.4 %). The average procedure time for sampling both lobes was 16.91 ± 2.7 minutes. On EUS assessment, the right lobe (RL) offered significantly longer trajectory length (5.95 ± 0.5 vs 3.56 ± 0.7 cm; p < 0.001) compared to left lobe (LL).

RL specimen yielded significantly greater aggregate specimen length (46.29 ± 15.4 vs 30.74 ± 13.8; p < 0.0001), length of the longest specimen (14.57 ± 6.6 vs 10.83 ± 4.7; p < 0.0001) and higher number of CPTs (24.06 ± 11.8 vs. 15.13 ± 9.1; p = 0.001) compared to LL. Adequacy of specimen, either by desired aggregate length or CPT number, was achieved in significantly higher proportion in the RL specimens (100 % vs 68.6 %; p < 0.001), although the fragmentation was similar in both the lobes. While diagnostic adequacy to achieve a final pathological diagnosis was statistically not different between the two arms, in 3 cases (8.6 %) the pathologist could clinch the diagnosis from the RL and not the LL.

Conclusions RL specimen obtained by EUS-LB showed significantly better aggregate specimen length, more CPTs and higher specimen adequacy compared to LL. RL specimens gave additional information in 9 % of cases when both lobes are sampled. (Trial Reg. No:CTRI/2023/06/053505)

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP083 Modified endoscopic ultrasound guided liver biopsy technique has better adequacy and lesser pain with equal safety profile compared to percutaneous route

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Aims Endoscopic ultrasound-guided liver biopsy (EUS-LB) has emerged as a alternative to the percutaneous route (PC-LB). Multiple actuation has the potential to increase yield of core specimen. We aimed at comparing sample adequacy and safety of multiple actuation EUS-LB using a modified technique with dynamic end point and compared with PC-LB.

Methods A total of 40 consecutive EUS-LB done between July to November 2023 were compared to 80 consecutive historical controls of percutaneous LB. All EUS-LB were performed using a modified technique with 19G franseen core needle by heparinised wet suction technique. Additionally fanning was performed when avascular plane was available. One to two passes were taken through the transgastric route with multiple actuations till blood was aspirated into the suction syringe. Transduodenal right lobe biopsy was only done in patients where left lobe biopsy was not feasible either due large collateral or atrophic lobe. Aspiration of blood into the suction syringe was used as a dynamic end point for biopsy actuations. Post procedure the syringe was detached with the stopcock closed and thereafter plunger of syringe was gently unlocked to release the residual negative pressure prior to opening of stopcock. Subsequently the content of syringe and needle was transfered into a petri dish containing formalin and specimen cores were identified and separated. Percutaneous liver biopsy was done with 18G biopsy gun and 2-4 passes were taken. Outcome measured were total and longest specimen length (TSL and LSL), number of complete portal tracts (CPT), definitive histological diagnosis, post procedural pain and adverse events (AE). An adequate specimen was defined as TSL ≥ 20 mm and CPT ≥ 11. Only TSL was considered when CPT could not be counted due to cirrhosis.

Results In EUS-LB mean number of actuation taken per pass were 6.19 (± 1.73). The percentage of adequate samples in EUS-LB vs PC-LB were 95 % vs 71.25 % (P-0.0025) and histological diagnosis was possible in 97.5 % vs 90 % (P-0.07). The mean TSL and CPT in EUS-LB vs PC-LB were 7.74cm (± 3.54) vs 4.24cm (± 1.94), P < 0.00001 and 25.36(± 10.2) vs 12.51(± 6.06), P < 00001. Post-procedural pain was seen in 21 % of PC-LB group while 5 % in the EUS-LB group had pain (P-0.007). Minor AE in form of sub capsular hematoma were seen in 3 patients in PC-LB group while 3 patients in EUS-LB group had sedation related vomiting in the post procedure period (P-0.93).

Conclusions Modified EUS-LB technique with multiple actuations has better sample adequacy, pain tolerability with comparable safety in comparison to PC-LB.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP084 Adequacy, safety and technical determinants of modified endoscopic ultrasound guided liver biopsy technique: A pilot study

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Aims Endoscopic ultrasound-guided liver biopsy (EUS-LB) has emerged as a safe alternative to percutaneous route. Tissue acquisition technique related factors as a determinant of specimen yield has not been studied. We adapted a modified technique of EUS-LB to study the adequacy, safety and technical determinants of higher yield.

Methods A prospective observational study was conducted from July to November 2023. All consecutive patients requiring liver biopsy were included. EUS-LB was performed with 19G Franseen core needle by wet heparinised suction technique. One to two passes were taken either through the transgastric or transduodenal (if former not feasible) route with multiple actuations till blood was aspirated into the suction syringe. Aspiration of blood into the suction syringe was used as a dynamic end point for biopsy actuations. Post procedure the syringe was detached with the stopcock closed and thereafter plunger of syringe was gently unlocked to release the residual negative pressure prior to opening of stopcock. Then the content in syringe and needle was transferred into a petri dish containing formalin and specimen cores were identified and separated. Outcome measured were total and longest specimen length (TSL and LSL), number of complete portal tracts (CPT) and definitive histological diagnosis. TSL, LSL and number of specimen cores were correlated with number and depth of actuations. An adequate specimen was defined as TSL ≥ 20 mm and CPT ≥ 11. Only TSL was considered when CPT could not be counted due to cirrhosis.

Results Fifty patients (non cirrhotics or chronic hepatitis-27, compensated cirrhosis-14, decompensated cirrhosis-9) were included in the study. The percentage of adequate tissue samples were seen in 48 patients (96 %). A final histologic diagnosis could be made in 49 patients (98 %). Mean TSL was 7.98 cm (± 3.74) and mean LSL was 1.89 cm (± 0.80). Mean CPT was 24.32 (± 9.60) excluding 8 patients (16 %) in whom portal tracts could not be counted due to stage 5/6 fibrosis. The mean number of specimen cores obtained per patient were 8.74 (± 3.65). Mean depth of actuation was 4.29cm (± 0.98) and mean number of actuation was 6.95 (± 2.04). The correlation between TSL in non cirrhotics vs cirrhotics with number and depth of actuation were r = 0.71 vs 0.53 & r = 0.55 vs 0.51. Similarly correlation between LSL in non cirrhotics vs cirrhotics with depth and number of actuation were r = 0.74 vs 0.55 & r = 0.28 vs 0.11. There was no significant correlation between number of specimen cores with either number or depth of actuation. Persistent needle track bleeding was observed in one patient which subsided after blood plugging. Post procedural mild pain and sedation related vomiting was seen in two patient each. No major adverse events were seen.

Conclusions This study validates use of our modified EUS-LB technique in achieving superior tissue acquisition, lesser pain scores while being safe both for non cirrhotic and cirrhotic subjects. It also proves that technical parameters like number and depth of actuation determines specimen yield.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Improving endoscopy service

25/04/2024, 14:00 – 15:00 **Room 11**

OP073 Standardised endoscopy reporting systems for colorectal EMR: are they really worth it?

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Aims The completeness of the endoscopy report after complex endoscopic procedures such as endoscopic mucosal resection (EMR) is an important factor both for the planning of the further treatment of the patient and for internal quality assessement and research purposes. The aim of our study was to evaluate the contribution of the implementation of a standardized reporting system in the quality of endoscopy reports after colorectal EMR.

Methods A standardized reporting system for EMR of colorectal polyps > 10mm including 28 different parameters was introduced in the Endoscopy Department of the Mannheim University Medical Center on the 01/02/2022. We identified all EMR reports for colorectal polyps > 10mm performed in our department between 01/01/2020 – 31.10.2023 and divided them into two groups: Group 1 included all reports before the introcuction of the new reporting system and Group 2 all the reports after its implementation. The completeness of the EMR reports was retrospectively analysed based on 28 indicators and the results were compared between the two groups. The indicators were grouped in 3 categories based on their importance for the treatment of the patient: Category A (necessary for further treatment), Category B (important for further treatment) and Category C (useful for quality assessment and research).

Results We identified 486 reports fulfilling our inclusion criteria, of which 280 in group 1 and 206 in group 2. The standardized reporting system was used in 74 % of the reports after its introduction, with the implementation rate rising from 66 % in the first half to 85 % in the second half of the study period. In average, 49,4 % of the selected indicators were documented in group 1 vs. 85 % in group 2 ($p < 0.00001$). This difference was significant in all 3 categories of indicators – Category A: 93 % vs. 96 % ($p = 0.0019$), Category B: 46 % vs. 84 % ($p < 0.00001$) and Category C: 26 % vs. 79 % ($p < 0.00001$).

Conclusions The implementation of a standardized reporting system significantly improved the quality of endoscopy reports after colorectal EMR. This fact may have important implications for planning of further treatment, internal quality assessment and research.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP074 Comparing a virtual scale endoscope and snares for size measurement accuracy of smaller colorectal polyps: A randomized controlled trial

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Aims Accurate measurement of polyp size during colonoscopy is crucial for informing clinical decisions such as resection techniques and surveillance scheduling. This study aimed to compare polyp size measurement accuracy when using a virtual scale endoscope (VSE) or snare-based polyp size measurement.

Methods This randomized controlled trial enrolled 221 patients undergoing screening, surveillance or diagnostic outpatient colonoscopies. Study subjects were randomized to have all detected polyps measured for size either using VSE or a snare of known size to estimate the size of each polyp during the colonoscopy. All polyps were measured for reference size directly after their removal from the colon using a digital caliper and before formalin fixation.

Results 93 polyps were included in the VSE group and 102 in the Snare group. VSE demonstrated significantly higher relative accuracy (80.0 % [95 % CI: 77.0-82.9]) compared to snare-based size estimation (66.4 % [95 % CI: 62.4-70.5]; p < 0.001). Misclassification rates were lower with VSE for polyps > 2mm (13.1 % vs. 39.3 %) and > 3mm (22.6 % vs. 55.4 %). For diminutive polyps, VSE better prevented misclassification (< 5mm: 6.1 % vs. 2.6 %; > 5mm: 21.4 % vs. 73.0 %; p =). VSE also outperformed snare in measuring within 10 % of reference standard size (30.1 % vs. 18.6 %) and had lower rates of size underestimation (36.5 % vs. 65.7 %).

Conclusions Using VSE improves polyp size measurement accuracy during colonoscopy in comparison with snare-based size estimation. In clinical scenarios, VSE reduced misclassifications at clinically relevant size thresholds 2,3 and 5mm which is relevant for adequate choice of polypectomy techniques or when implementing resect and discard strategies.

Conflicts of interest Daniel von Renteln has received research funding from ERBE Elektromedizin GmbH, Ventage, Pendopharm, Fujifilm and Pentax, and has received consultant or speaker fees from Boston Scientific Inc., ERBE Elektromedizin GmbH, and Pendopharm. The remaining authors declare that they have no conflict of interest.

OP075 Clearing the Way: Impact of a combined low volume polyethylene glycol lavage with low residue diet and preprocedure simethicone on bowel cleansing quality – a randomised controlled trial

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DOI 10.1055/s-0044-1782793

Aims The quality of bowel cleansing is known to influence the quality of colonoscopy. A case has been made for dietary modification in the form of low residue diet (LRD) along with polyethylene glycol (PEG) preparation resulting in better bowel cleansing. Also, combined use of simethicone and PEG as lavage solution for bowel preparation has been shown to reduce abdominal pain, bloating and discomfort. We aimed to assess the safety and efficacy of a combined bowel preparation with low volume PEG, low residue diet and simethicone and compare it to the traditional PEG based bowel preparation regimens.

Methods Patients who attended our department of gastroenterology over a period of 1 year and who underwent colonoscopy for routine clinical indications were randomised into 3 arms in a ratio of 1:1:1 according to the bowel preparation that they received – 1) 4L PEG with clear liquid diet 2) 2L PEG with LRD 3) 2L PEG with LRD with simethicone solution. A computer-generated randomization chart was used to determine allocation. Written instruction on how to prepare and ingest the bowel preparation solution as well as specific dietary advices depending on the allocated study arm was explained at the time of scheduling the exam by trained paramedical staff. All colonoscopies were performed by trained endoscopists (> 275 colonoscopies) who were blinded to the preparation received by the patient. The primary outcome was quality of bowel preparation measured by the Boston Bowel Preparation Score (BBPS) and Bubble score. Colonoscopy quality indicators like cecal intubation time and overall procedure duration were recorded. Overall patient satisfaction was assesed using the a 5 point Likert scale. Adverse events like abdominal pain, vomiting, nausea and headache during the course of taking the bowel preparation regimen was also noted.

Results 353 patients were included for the final analysis (4L PEG group – 120, 2LPEG with LRD – 117, 2L PEG with LRD with simethicone – 116). The cleansing quality was not significantly different between the groups (p = 0.224). However, the bubble score was significantly better in patients in the simethicone arm (p = 0.013). On evaluation of colonoscopy quality metrics, overall duration of the procedure (p = 0.016) as well as cecal intubation time (p = 0.004) was lower in the simethicone arm.Overall patient satisfaction was better in the simethicone arm although the difference was stastically non-significant (p = 0.102). Adverse events like nausea/vomiting (p = 0.024), abdominal cramps (p = < 0.001) and headache (p = 0.002) were reported less frequently in the simethicone arm.

Conclusions Combined use of PEG with low residue diet and simethicone offers advantages in terms of lower overall procedure duration time, cecal intubation time, fewer adverse events and better overall patient satisfaction. However, there was no significant difference in terms of bowel cleansing efficacy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP076 Magnetic Balloon-Assisted Colonoscopy in Patients with Prolonged Cecal Intubation Time: A Single-Arm European Multicenter Clinical Investigation

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Aims Incomplete colonoscopy has been associated with higher risk of post-colonoscopy interval cancer. Colon loop formation is the main risk factor for incomplete colonoscopies. To address these challenges, a marked magnetic balloon technology add-on device was developed to facilitate colonoscope unlooping and progression. This study aims to assess the safety and efficacy of magnetic balloon-assisted colonoscopy in completing prolonged procedures.

Methods We conducted an open-label, single-arm, prospective, post-market, multicenter study in Italy, Belgium, and Germany. Outpatients undergoing diagnostic or surveillance colonoscopy were eligible if cecal intubation was not achieved within 10 minutes. Patients with angulated and fixed colon curves were excluded. Study technology consists of a balloon catheter that can be inserted on demand in the colonoscope tool channel, filled with a syringe of ferromagnetic fluid, and anchored with an external permanent magnet. Magnetic balloon anchorage stabilizes the scope tip and facilitates easy straightening. Primary endpoint was an incompletion rate ≤ 10 %. Rate of serious adverse events was also collected.

Results Between January and May 2023, a total of 38 patients who experienced an insertion time ≥ 10 minutes with incompleteness of colonoscopy, were included for the interim analysis. Technical success of the magnetic balloon technology was 100 %. The cecum was successfully intubated in all 38 patients, achieving a colonoscopy completion rate of 100 %, also corresponding to a 0 % incompleteness rate (95 % CI: 0 % – 7.6 %). Polyp detection rate was 45 % (95 % CI: 26 % – 71 %).

Conclusions This clinical investigation provides evidence that magnetic balloon-assisted colonoscopy is both safe and effective in completing prolonged colonoscopies. This on-demand technology has the potential to serve as a useful tool for large-scale solution for facilitating colonoscopy completion in a subset of patients at a higher risk of incomplete procedures or adverse events.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP077 Clinical validation of priority criteria for indication to colonoscopy: a multicenter prospective study

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Aims Colonoscopy is one of the most frequent endoscopic examinations and represents a significant burden for patients and providers. Thus, adequacy for colonoscopy have been systematized namely by EPAGE-II (European Panel for Appropriateness in Gastrointestinal Endoscopy), ASGE (American Society for Gastrointestinal Endoscopy) and recently RAO criteria in Italy. Such criteria were proposed by a consensus of experts but were not clinically validated. The primary aim of this study was to validate in clinical practice the RAO criteria and to compare them to EPAGE-II and ASGE criteria.

Methods Multicenter prospective observational study involving 9 institutions in Emilia-Romagna, an Italian region with over 4 million inhabitants. Consecutive adult patients undergoing colonoscopy outside CRC screening organized programs in 3 consecutive months for each Center between November 2022 and May 2023 were eligible to be included. Colonoscopies with inadequate bowel cleansing and incomplete were excluded. RAO criteria comprise 3 groups of priority to colonoscopy based on different clinical indications: "B" (high priority), "D" (intermediate priority) and "P" (low priority). RAO criteria were considered valid if CRC or relevant findings were more frequent in "B" than "D" and "P" group, respectively. Other relevant findings comprised polyps requiring surveillance according to ESGE guidelines, active colitis including inflammatory bowel disease and other etiologies, and angiodysplasia.

Results Overall, 2,546 patients (mean age 63 + 14 years, female sex 49.8 %) were included. CRC and relevant findings were found in 74 (2.9 %) and 525 (20.6 %) cases, respectively. Most frequent indications to colonoscopy were anemia (14.1 %), rectal bleeding (12.2 %), and abdominal pain (11.4 %). Overall, 398 (15.6 %) patients were in RAO "B" category, 617 (24.2 %) were RAO "D", and 1,531 (60.1 %) were RAO "P"; and 1,539 (60.5 %) and 1,284 (50.4 %) colonoscopies were considered appropriate according to EPAGE-II and ASGE, respectively. The occurrence of CRC was 12.1 % in RAO "B", 3.1 % in RAO "D", and 0.5 % in RAO "P" category ($p < 0.001$). The occurrence of relevant findings was 35.4 % in RAO "B", 24.8 % in RAO "D", and 15.1 % in RAO "P" category ($p < 0.001$). The occurrence of CRC was significantly higher in appropriate vs. inappropriate colonoscopies according to ASGE (3.9 % vs. 1.9 %, $p = 0.003$), but not for EPAGE-II (3.3 % vs. 2.4 %, $p = 0.204$), whereas relevant findings were more frequent among appropriate examinations for ASGE (25.6 % vs. 15.6 %, $p < 0.001$) and EPAGE-II (23 % vs. 17 %, $p < 0.001$).

Conclusions We performed clinical validation of the newly proposed RAO criteria in a vast region of Italy, showing a gradient of CRC and relevant findings likelihood across the various priority categories. RAO criteria "B" vs. "D" or "P" seem to be more discriminative than EPAGE II or ASGE criteria. Therefore, RAO criteria may be used to triage patients undergoing colonoscopy to define the priority of the examination. [1–3]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP078 Impact of immersive virtual reality during outpatient sedation-free colonoscopy: A randomized prospective controlled study

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DOI 10.1055/s-0044-1782796

Aims The aim of this study was to evaluate the impact of intraprocedural immersive virtual reality (VR) combining visual and auditory distraction in the improvement of the tolerance and the progress during unsedated colonoscopy.

Methods We conducted a prospective controlled study from February to April 2023 including outpatients presenting to the endoscopy unit for unsedated colonoscopy after consent. Patients were randomized into two groups: Group 1: colonoscopy with virtual reality headset. Group 2: control group without intervention.The material used was a virtual reality headset provided with a fully adjustable headband. The video content displayed on the hardware is made of several clips showing nature scenes. The audio content was adapted to allow optimal communication with the patient. We have excluded patients with severe visual and/or auditory impairment, dementia, cognitive impairment and epilepsy. All participants initially completed a form covering health issues and a validated anxiety questionnaire (STAI). After colonoscopy, all patients completed a form with questionnaires assessing per-procedural patient comforT (Gloucester), anxiety (STAI) and pain (EVS). In addition, patients in the intervention group completed a satisfaction questionnaire (NPS: net promoter score) assessing their experiences with the VR headset.

Results: In total, 63 patients were included in the final analysis: intervention group G1 ($n = 33$) and control group G2 ($n = 30$). The mean age was of 57 years. No patient encountered a technical problem or adverse events occurred during the immersive experience. The two groups were comparable in terms of age, gender, comorbidities, body mass index (BMI) and colonic preparation assessed by the Boston score. A slightly lower time to caecal intubation was noted in the intervention group without significant difference (G1: 19 min vs G2: 26 min, $p = 0.07$). Patients with VR mask expressed lower levels of post-procedural anxiety than those in the control group (Mean STAI G1: 47 vs G2: 53, $p < 0.01$) and a significant decrease in the STAI score compared to pre-endoscopy values (8 points vs 4 points, $p < 0.01$). The per-procedural pain assessed by EVS was significantly lower in the patients using VR (Mean G1: 0.44 vs G2:1.32, $p < 0.01$). Moreover, endoscopic examination was found to be more comfortable with virtual reality based on the Gloucester scale $p < 0.01$. Four patients were not satisfied with the resolution of the videos and 8 patients have expressed their preference to choose the content themselves. Patients of the intervention group were greatly satisfied with the VR experience with a mean NPS at 30.

Conclusions Immersive VR technology is a promising, non-invasive and well-accepted simple tool for improving tolerance by reducing colonoscopy induced pain and anxiety allowing an optimized examination. It can be a useful alternative to conventional sedation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Patient Care & Endoscopic Procedures

25/04/2024, 15:30 – 16:30 Room 6 & 7

OP097 We always need a backup plan!

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DOI 10.1055/s-0044-1782797

Aims 1. Description of a possible approach to a difficult and exceptional clinical case. 2. Giving importance in nurses' training regarding exceptional treatments, before performing the procedures

Methods Description of the clinical case: 80-year-old man, regularly monitored at another Hospital for liver cirrhosis, had no prior hospitalizations for ascetic decompensation or digestive bleeding. In August 2023, an esophagogastroduodenoscopy (EGD) revealed a lesion located at 30 cm, on an esophageal varix. Histological analysis identified the lesion as adenocarcinoma.

The patient was sent to our unit for the evaluation of a potential endoscopic treatment. Another EGD was conducted, revealing a 20 mm sessile polypoid lesion. The lesion exhibited signs of necrosis and recent bleeding. Consequently, the patient was hospitalized in gastroenterology ward for further clinical examinations and evaluation by our medical team.

It was considered different treatment options, including Transjugular Intrahepatic Portosystemic Shunt (TIPS) and endoscopic band ligation (EL). However, due to the patient's clinical condition and the urgency of the situation, these treatments were excluded because they took too long time.

Results The medical team opted for a therapeutic EGD, which involved the sclerosis of the esophageal varix beneath the lesion using cyanoacrylate, followed by the removal of the lesion through endoscopic mucosal resection (EMR). The patient was prepared in the operating room under general anesthesia. During EGD, only a residual peduncle of the previously identified esophageal lesion was observed. The endoscopist then proceeded with EBL of the varix located under the residual peduncle. After 20 days the patient appeared in good clinical condition. Another EGD was performed and it revealed the success of the endoscopic treatment.

Conclusions 1. This clinical case demonstrates the importance of always having a backup plan. 2. In our center the use of cyanoacrylate is not commonly used. Only nurses of the "old generation" have experience in the correct use of cyanoacrylate. Before performing the procedure, the nurses were informed of the treatment of this patient and a training for nurses in the use of Cyanoacrylate was performed. [1–3]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP098 The nurse role in the transplantation of faecal microbiota

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DOI 10.1055/s-0044-1782798

Aims C. Difficile is transmitted through the fecal-oral route. Due to the strong resistance of the spores to the physiological conditions of the environment and to alcohol disinfectants, it is important to isolate patients who are infectious or, if this is not possible, to fence them off with a screen. Before the transplantation of fecal microbiota itself, the nurse educates the patient about the transplantation procedure itself and provide them with a sense of security through verbal and non-verbal communication. The aim is to present two methods which we perform in Clinical Hospital Center Rijeka which is a first institution that performed this method in Croatia.

Methods Faecal microbiota transplantation is performed via colonoscopy and nasojejunal probe. Which treatment method will be used for the patient depends on the patient's state of health and the doctor's assessment. Regardless of which treatment method is involved, it is very important to mentally prepare the patient for this type of transplantation. Transplantation via colonoscopy requires greater involvement of the nurse, because they are the ones who prepare the patient for the procedure themselves, prepare the transplant for application and apply the transplant themselves, and they must also provide psychological support to the patient during the procedure, because this type of transplantation can be painful for patients due to movement of the endoscope through the colon. Transplantation of fecal microbiota via a nasojejunal tube is another way of using stool filtrate. Nasojejunal tubes may be less attractive and uncomfortable for the patient. However, transplantation via a nasojejunal tube is less painful for the patient, while in this case of treatment the task of the nurse is much more demanding. The nurse supervises the patient during the application of the transplant and for some time after the end of the procedure.

Results The task of the nurse is to properly prepare the patient for transplantation, depending on which method is being treated. The day before the actual transplantation, the patient must clean the bowels well with the help of cleansing preparations or enemas so that on the day of the transplantation it will be clean if the transplantation is to be as successful as possible. Transplantation via a nasojejunal tube involves the first endoscopic placement of a troluminal tube.

Conclusions It is important that everything takes place in aseptic conditions and that the nurse is trained to carry out faecal microbiota transplantation. Transplantation of fecal microbiota has been proven to be a successful method of treating a disturbed intestinal microbiota balance, but unfortunately it is still underused.In faecal microbiota transplantation, a well-educated nurse plays an important role as an equal member of the team. An individual holistic approach achieves the highest level of care for the patient, while an empathetic attitude towards the patient through verbal and non-verbal communication reduces fear and negative feelings, and it is easier for patients to bear the procedure of faecal microbiota transplantation itself.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP099 Nursing care in raising awareness about the importance of participating in national preventing program for colonoscopy

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DOI 10.1055/s-0044-1782799

Aims In Croatia, colorectal cancer ranks second in terms of frequency. Approximately 3.000 individuals of both genders are diagnosed annually, with 2.000 of them succumbing to the disease, placing it fifth in terms of mortality causes. Since 2008, Croatia has implemented a National Early Detection Program for colorectal cancer. The programs objective is to identify the disease in its early stages and reduce mortality. Those at higher risk include individuals over 50 years of age, those with a positive family history, a positive test for occult blood in the stool, and those with previously known polypoid changes.

Methods Steps in raising awareness involve informing the public about the importance of participation, possible symptoms or lack thereof in the early stages, informing other healthcare professionals about the importance of informing patients and their families, taking care of hard-to-reach and uninsured individuals, conducting public health campaigns, providing psychological

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preparation for colonoscopy, identifying barriers to participation in the program and addressing them, providing information and support in all stages of screening and diagnosis, and organizing and participating in group education sessions about health awareness and the national early detection program for colorectal cancer.

Results The World Health Organization estimates that between 30-50 % of malignant cases can be prevented. Through the National Preventive Program, a targeted population is invited at regular intervals preventative doctor's visits to check malignant diseases. In the prevention of diseases, a significant role is played by a nurse who with her knowledge and skills educate the population to respond to a call for doctors visits.

Conclusions The most crucial step for a nurse is a holistic approach to every patient who responded to the National Programs invitation. Before, during, and after the program, nurse ensures quality care, including psychological preparation for proper endoscopic procedure and execution, and engaging in conversations to dispel stigma about colonoscopy, encouraging the patient and those in their surroundings, ultimately contributing to an increase in participation. The assessment of tested individuals within the National Program is 21 %, leaving substantial room for increasing participation rates. One of the initial steps toward success involves nurses and technicians.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP100 Local anaesthesia of the pharynx for OesophaoGastroDuodenoscopy (OGD); new technique with better patient tolerance and reduced risk of airborne spread

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DOI 10.1055/s-0044-1782800

Aims Upper-gastrointestinal endoscopy, or oesophagogastroduodenoscopy (OGD), is a procedure routinely performed in secondary care settings throughout the UK. Local anaesthesia, in the form of throat spray, and intravenous sedation are often used to make this clinical procedure more comfortable for the patient.

Methods This study focused primarily on the difference in administration of the local anaesthetic throat spray. The commonly used method was to spray the back of the patient's pharynx while their mouth was open: "mouth-open" technique. This study proposed a modified technique which involved spraying the pharynx with the mouth closed around the spray nozzle: "JASMEG" technique. This was a quality improvement study of 474 patients (male: female = 1.13) who were undergoing an OGD as part of routine care in a district general hospital in the United Kingdom. It was carried out to investigate whether this new method of spray administration would increase patient comfort and reduce patient anxiety, pulse rate and incidence of cough. Comfort and anxiety scores were scored on a 5-point Liker scale (1 = most comfortable/ least anxious, 5 = least comfortable/ most anxious). Outcomes were compared between the two groups using linear regression models controlling for sex. Incidence of cough was compared between groups using Fisher's exact test.

Results A breakdown of the sample by treatment group and sex is shown in Table 1. As compared to the "mouth-open" group, the "JASMEG" group showed a smaller increase in pulse rates (group difference = -3.97, $p < 0.001$), lower anxiety scores (group difference = -1.31, $p < 0.001$), higher comfort scores (group difference = 1.07, $p < 0.001$) and lower incidence of cough (13 out of 252 vs 190 out of 222; $p < 0.001$). There were no significant differences in the results by sex.

Conclusions The new "JASMEG" technique of local anaesthetic spray for patients undergoing OGD is superior in terms of patient comfort, anxiety levels, pulse rates and presence of cough. This is alow-cost alternative to reduce transmission of aerosol-transmitted infections, while also making it a more favourable procedure for patients. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

References

[1] Esther K, Suchika G, Marlon A, Julian G, Alastair GS Jude Local anaesthesia of the pharynx for OesophaoGastroDuodenoscopy (OGD); new technique with better patient tolerance and reduced risk of airborne spread.A.

OP101 Nurse Endoscopist facilitated Colonoscopy Training for Junior Surgeons and Gastroenterologists

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DOI 10.1055/s-0044-1782801

Aims In Denmark, there is no tradition for standardised training programs for junior surgeons and gastroenterologists and limited resources for supervision are provided by consultant endoscopists. Thus, training programmes run by experienced nurse endoscopists may be a solution to reduce junior doctors' learning curve. We aimed to assess the feasibility of a nurse-run course.

Methods A structured training course of 10 days was offered to junior doctors. The introductory day was spent in the simulation room, where junior doctors were trained in the fundamental principles of colonoscopy and colonoscope functions. Day one in the Endoscopic department consisted of a complete examination of the unit, covering equipment, ergonomics, medications and the team dynamic in the procedure room.

After this the trainees observed how the nurse endoscopists performed a complete colonoscopy. The trainees were taught in colonoscope retraction, with emphasis on maintaining the lumen and observing as much tissue as possible. Once retraction was competently achieved, trainees started scope insertion with strict trainer supervision and manoeuvre techniques.

This workflow was continued until trainees were fully competent in completing the procedure. Simultaneously, pathology was explained. This training included polypectomies, biopsies, cancer recognition and patient education.

The aim was to complete 20-30 colonoscopies in the 10-day period followed by two days a month in the endoscopy department, to maintain skills and gain further competencies.

Participants were evaluated by the nurse endoscopists through standardised evaluation schemes OSATS (Objective Structured Assessment of Technical Skills).

Participants completed a written assessment of the training and were interviewed by a consultant surgeon to explore the impact of the course.

The interviews were transcribed and analysed using inductive qualitative analysis.

Results Four junior surgeons completed the training. However, one only had 7 days of training. None had previous experience in colonoscopy procedures.

Preliminary interview results suggested that all participants were enthusiastic about this training initiative. They were very positive about a structured training period, allowing transparency about what was to be expected. Furthermore, knowing that the trainers were always present gave the trainees more security.

All participants mentioned that having the further two days a month was important, as this maintained their competencies and gave them an opportunity to evolve.

Conclusions The nurse-endoscopist-facilitated colonoscopy training programme for junior doctors pointed to an excellent and very efficient learning opportunity.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP102 "Smart glasses" for first time gastrostomy tube replacement at home by a specialist endoscopy nurse: initial experience

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DOI 10.1055/s-0044-1782802

Aims Advances in medical technology are rapidly changing how healthcare professionals perform their job. "Smart glasses" (Rods and Cones, Amsterdam, The Netherlands) are a new medical device that facilitates remote assistance in healthcare setting. Smart glasses create a GDPR- and HIPAA-compliant connection between a clinician or a nurse and a remotely-located expert, who is able to watch the procedure in real-time and full high definition (HD), and to provide interactive assistance. Smart glasses have been successfully employed in surgery and anesthesiology and, recently, we introduced them in our routine endoscopic clinical practice. Since travels to hospital may be challenging for frail patients, we aimed to evaluate the use of smart glasses as a support technology for specialist endoscopy nurses performing first time percutaneous endoscopic gastrostomy (PEG) tube replacement at patient's home.

Methods We prospectively evaluated the efficacy and safety of first time PEG tube replacement performed at the patient's home by a specialist endoscopy nurse wearing the smart glasses, under the remote supervision of a remotely located gastroenterologist.

Results Between May and October 2023, 4 patients underwent first time PEG tube replacement. The procedure was successful in all cases, without major adverse events. In 2/4 cases, the specialist endoscopy nurse was able to perform the tube replacement under real-time supervision through the smart glasses, without any need for intervention or advice from the remote expert. In 2/4 cases, the specialist endoscopy nurse asked the remote expert for help and guidance. In particular, in one patient, external bleeding from the PEG tract occurred after tube removal. While the specialist endoscopy nurse applied gentle compression of the surrounding skin with resolution of the bleeding and performed tube washes after insertion to verify that there was no blood in the stomach, a review of the patient's therapy could be carried out with the expert, who recommended to withhold prophylactic heparin for two days. In another patient, the tube initially appeared to be fixed, with a suspicion of a buried bumper syndrome. Upon careful evaluation through the smart glasses, the expert was confident that this could be due to the poor management of the PEG, and advised to perform again rotational and push and pull movements, which were eventually successful.

Conclusions Our case series highlights the ease of applicability and great potential of smart glasses in promoting telemedicine and green healthcare in gastrointestinal endoscopy and envisions new horizons for the role of endoscopy nurses in a modern model of integrated care.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Artifical intelligence for better detection?

25/04/2024, 15:30 – 16:30 **Room 8**

OP103 Computer-Aided Diagnosis for the Resect and Discard Strategy for Colorectal Polyps: A Systematic Review and Meta-Analysis

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DOI 10.1055/s-0044-1782803

Aims According to the Resect and Discard strategy, endoscopists can replace post-polypectomy pathology with real-time prediction (optical diagnosis) of polyp histology during colonoscopy. This strategy is only applicable to small polyps ≤ 5mm and if the endoscopist prediction was made with high confidence. The variability in real-time optical diagnosis among different endoscopists can be standardized by the high accuracy expected from computer-aided diagnosis systems (CADx). The aim of this meta-analysis is to provide a preliminary estimate of the accuracy of CADx and to assess its effect in clinical practice.

Methods We conducted a search of MEDLINE, EMBASE, and Scopus databases, covering studies published from inception to October 31, 2023. We included histologically-verified accuracy diagnostic studies that evaluated the real-time optical diagnosis performance of endoscopists for polyps ≤ 5mm in the entire colon. The study had two main endpoints: 1) to assess the accuracy of CADx-alone, including sensitivity, specificity, and negative (NPV) and positive (PPV) predictive values; and 2) to compare CADx-unassisted and -assisted diagnosis in terms of proportion of polyps resected and discarded and and the appropriateness of the surveillance intervals according to ASGE/ESGE guidelines. For this second endpoint, diagnoses were restricted to only high-confidence diagnosis as required by the guidelines.

Results We analyzed 8 studies using 5 different CADx systems (1,850 patients with 3,815 polyps ≤ 5mm). The CADx-alone pooled sensitivity and NPV were 87.6 % (95 % CI: 0.813 – 0.920) and 85 % (95 % CI: 0.751 – 0.915), respectively. While specificity and PPV were 83.8 % (95 % CI: 0.746 – 0.901) and 86.5 % (95 % CI: 0.825 – 0.897), respectively. When limiting our analysis to high-confidence diagnosis, the proportion of diminutive polyps that would have been resected and discarded appears to be 90 % (95 % CI: 0.81 – 0.95) and 91 % (95 % CI: 0.89 – 0.93) in the unassisted and assisted arms, respectively. In detail, sensitivity and specificity were, respectively, 93.2 % (95 % CI: 0.901 – 0.953) and 79.4 % (95 % CI: 0.538 – 0.928) for the unassisted arm and 91.9 % (95 % CI: 0.852 – 0.957) and 87.7 % (95 % CI: 0.754 – 0.943) for the assisted arm.

Conclusions The CADx-alone strategy demonstrated very good optical diagnosis performance; however, the analysis identified certain outliers. This underscores the importance of thoroughly investigating a CADx system before its utilization. A limitation of our study is that not all CADx systems used were regulatory approved, and it's noteworthy that most participating endoscopists had extensive experience in optical diagnosis.

Conflicts of interest Cesare Hassan: Fujifilm Co. (consultancy); Medtronic Co. (consultancy), Emanuele Rondonotti Fujifilm Co. (speaking honorarium); Medtronic Co. (consultancy), Yuichi Mori: Olympus Corp (consultancy, speaking honorarium, equipment loan); Cybernet System (ownership interest), Alessandro Repici: Fujifilm Co. (consultancy); Olympus Corp (consultancy); Medtronic Co. (consultancy). Other authors: nothing to disclose.

OP104 Delineation of recurrence amongst non-expert endoscopists is less accurate than experts but is readily trainable using a short learning intervention

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Aims Colorectal cancer is prevented by colonoscopy and polypectomy. Failure to recognize the endoscopic resection scar after EMR risks unrecognized recurrent or residual adenoma (RRA), which may propagate into post-colonoscopy colorectal cancer. Expert series suggest scar recognition and interrogation is well performed with a high negative predictive value of endoscopic imaging vs histopathology. In this study we investigate the performance of endoscopic imaging in detecting RRA at an endoscopic resection scar amongst general endoscopists and the impact of a learning intervention on recognition of RRA.

Methods A survey containing 15 HD-WL and NBI images, a learning intervention on detection of RRA (LT), then another set of 15 high quality images was circulated to a mailing list of the GIEQs foundation. Each image contained the same questions: Is this a resection scar? Is there RRA? What is your level of confidence? Also, information on the participant was obtained: number of EMRs performed, current grade (consultant gastroenterologist, consultant surgeon, trainee gastroenterologist) and years of experience. Comparisons were made to expert opinion derived at a consensus meeting of the senior authors regarding the appearances of the scars using the approach set out in Desomer et al. 2017 [1].

Results 3,439 participants rated 30 images, 82 completed the survey (response rate: 4.1 %) resulting in 2,460 observations. 15/82 (18.3 %) of participants were experienced (performed > 100 EMRs). The accuracy of detecting RRA preLT was: 75.3 % (95 % CI 73.5-77.2) vs postLT: 79.5 % (95 % CI 77.2-82.0, P = .006). The sensitivity preLT was 72 % (95 % CI 69.1-74.8) vs postLT 70.9 % (95 % CI 67.5-74.5,P = .649). The specificity was significantly improved postLT 50.0 % (95 % CI 44.1-55.4) vs 94.0 % (95 % CI 90.0-98.0, P = < .001). Experienced endoscopists showed more accurate determination of RRA preLT than inexperienced participants (83.6 % vs 74.0 %, P < .001). The specificity was significantly higher amongst the experienced vs the inexperienced participants, preLT (67.3 % vs 46.7 %, P < .003). This difference in specificity was not observed postLT (experienced 97.6 % vs inexperienced 93.5 % P < .440). No differences in sensitivity between these two groups were noted pre or post LT.

Conclusions The accuracy of detecting RRA is relatively low compared to previously published expert series. This is even true amongst participants with extensive EMR experience. Low accuracy predominantly resulted from lack of specificity, which was significantly mitigated by the training intervention. These results suggest that potential negative patient impact of underdiagnosing recurrence at an endoscopic resection scar (repeat procedures or future occult malignancy) can be substantially mitigated by training.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP105 Randomized controlled trial of a cloud-based artificial intelligence (AI) computer-aided diagnosis (CADx) system in non-expert endoscopists (CADDIE)

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DOI 10.1055/s-0044-1782805

Aims Non-expert endoscopists' optical diagnosis (OD) of polyps falls short of 'resect and discard' and 'diagnose and leave' thresholds. Previous CADx studies are limited to locally deployed hardware AI systems and are mainly evaluated in expert endoscopists. CADDIE is a cloud-based CADx system that receives the live image stream from the endoscopy screen via the hospital's internet network, where the AI algorithm processes the images and outputs its diagnosis (adenoma, non-adenoma or uncertain) on the endoscopy screen. We aimed to assess the performance of the real-time cloud-based CADDIE system when colonoscopy is undertaken by non-expert endoscopists (adenoma detection rate below 30 %).

Methods We enrolled 739 patients between April 2021 – Dec 2022, scoped by 32 endoscopists in 9 UK hospitals. Each endoscopist was limited to a maximum of 60 procedures and required to perform more than 20 % of this target. Patients were block randomised in a 1:1 ratio to standard of care (SOC) or intervention (CADDIE), stratified by endoscopist and indication. OD accuracy of humans alone (SOC arm) and humans aided by CADDIE (CADDIE arm) were compared to the CADDIE system's stand-alone performance in the CADDIE arm.

Results There were 615 evaluable patients after exclusions as pre-defined in the study protocol. There were 523 eligible polyps (270 SOC arm, 253 CADDIE arm). The CADDIE system diagnosed 17.8 % of polyps (45/253) as "uncertain". Human alone (SOC) OD accuracy was 75.9 %, human OD aided by CADDIE was 80.2 %, whilst the stand-alone CADDIE system was significantly higher than both at 87.5 % (p = 0.005 and p = 0.04, respectively). Similarly, in the sub-analysis of small and diminutive polyps (≤ 10mm), human alone OD accuracy was 73.8 %, human OD aided by CADDIE was 79.0 %, whilst the CADDIE system was significantly higher than both at 87.9 % (p = 0.001 and p = 0.02). Although results were not significant for diminutive polyps (≤ 5mm), the trend was towards higher accuracy in the CADDIE system (86.6 %) compared to humans alone (78.1 %; p = 0.011) and human OD aided by CADDIE (77.3 %;p = 0.05).

In sub-analyses of high-confidence (HC) OD, the CADDIE system's accuracy for ≤ 10mm polyps was significantly higher (87.9 %) than humans alone (78.4 %;p = 0.04), with no difference to humans aided by CADDIE (83.3 %;p = 0.18). For HC OD of ≤ 5mm polyps, where the sample size is smaller, the CADDIE system's accuracy was higher (86.6 %) but not significant to humans alone (82.7 %,p = 0.46) and humans aided by CADDIE (81.4 %,p = 0.28).

The OD-derived colonoscopy surveillance interval accuracy was 87.2 % in humans alone, 86.8 % in humans aided by CADDIE and 90.9 % for the CADDIE's system.

Conclusions We demonstrate proof of concept and robust results for a cloud-based CADx system. Further research is warranted in the human-computer interaction to optimise non-expert endoscopists' OD performance to that of CADx systems.

Conflicts of interest Laurence B Lovat has received medical consultancy fees from Odin VisionRawen Kader has received medical consultancy fees from Odin Vision

OP106 Benefits and harms of optical diagnosis by artificial intelligence in colonoscopy: a multicentre cohort study

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DOI 10.1055/s-0044-1782806

Aims Artificial intelligence with computer-aided diagnosis (CADx) enables real-time optical distinction between neoplastic versus nonneoplastic colon polyps during colonoscopy. We quantified healthcare costs, resource implications and patient burden associated with the use of CADx in colonoscopy, utilizing data from a large clinical trial (EndoBRAIN International).

Methods We used data from the trial to estimate colonoscopy-related cost, histopathology evaluations, untreated neoplasia, and recommendations for colonoscopy surveillance in two scenarios: standard care (removing all detected polyps), and CADx-assisted leave in-situ strategy (not removing polyps ≤ 5 mm diameter in the distal colon and rectum evaluated as nonneoplastic). We base our estimates of cost and recommendations on UK public reimbursement rates and clinical guidelines.

Results We included 1,134 patients (59 % male, median age 67 years). Compared to standard care, the CADx-assisted leave in-situ strategy reduced the average cost of colonoscopy from £625 to £608, saving £17 (95 % confidence interval: £12 to £28) per colonoscopy. With current annual numbers of colonoscopies performed in the UK, this translates into potential savings of £12 million per year. The number of polyps requiring histopathology evaluation reduced from 1,716 to 1,274 (-25.8 %; 95 % CI: -23.8 % to -28.0 %). The risk of leaving in-situ neoplastic polyps because of erroneous CADx diagnosis was 0.02 polyps per patient (95 % CI: 0.01 to 0.03), corresponding to 2.1 % (95 % CI: 1.3 % o 3.1 %) misdiagnosed neoplastic polyps. This resulted in 0.2 % (95 % CI: 0.0 % to 0.6 %) deviation of colonoscopy surveillance recommendations among all patients.

Conclusions CADx-assisted optical diagnosis could save colonoscopy-related costs by a substantial reduction of histopathological evaluations. Risk of neoplasia left in-situ and deviation from surveillance interval recommendations appeared marginal.

Conflicts of interest IB – AbbVie (consultant)AR – Olympus America (research grant, consultant); Boston Scientific (research grant, consultant)MB – Paion (regulatory witness)JEE – Paion (served on clinical advisory board); Satisfai Health (served on clinical advisory board); Falk, Jannsen and Medtronic (speaking honorarium).MM – Olympus Corp. (speaking honorarium); Cybernet System Corp. (Licensing fee)YM – Olympus Corp. (consultancy, speaking honorarium, devices on loan); Cybernet System Corp. (Licensing fee)

OP107 Evaluation of Artificial Intelligence-Assisted Colonoscopy for Adenoma Detection in Lynch Syndrome: a multicentre randomized controlled trial (Timely study)

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Aims To compare mean number of adenomas per colonoscopy (APC) between CAD assisted colonoscopy (CADe) versus white light (WLE) in Lynch syndrome patients.

Methods An international, prospective, paralell, randomized, multicenter (16 centers and 30 endoscopists) controlled study was conducted to compare CADe-assisted colonoscopy Gi genius Medtronic (intervention) with white-light endoscopy (WLE, control) in individuals harboring pathogenic/likely pathogenic MLH1, MSH2, MSH6, or EpCam variants associated with Lynch syndrome (LS). The randomization 1:1 stratified by center. The procedures, management and resection of lesions was made according to clinical practice and high confidence hyperplastic < 5 mm rectosigmoid polyps were left in situ. Hystopathology was the gold standard. Based on previous data the sample size calculation on two negative binomial rates we estimated that 168 to 203 individuals per group will be needed [1–2]

Results 430 patients of 456 elegible individuals were randomized. Sixteen participants were excluded after randomization which led to finally 414 patients (204 CADe arm and 210 WLE arm).Baseline characteristics of patients and procedures were well distributed between both groups Mean age was 48.9 (Standard deviation [SD] 14.3). There were no differences on median of withdrawal time between both groups (13.1 min for CADe vs 12.6 min for WLE p = 0.32). There were no statistically significant differences for the main outcome the overall APC between groups CADe 0.64 (SD 1.59) and WLE 0.64 (SD 1.17) adjusted rate ratio (aRR) = 1.02 [95 % CI 0.71-1.44] p = 0.93. Subgroup analysis of adenomas showed no differences on means between both arms for size, morphology (flat versus polypoid) or when comparing proximal versus distal location.

No differences were founded on mean serrated lesions per colonoscopy CADe 0.58 (SD 0.94) versus WLE 0.46 (SD 0.95) aRR = 1.34 [0.94-1.93] p = 0.11, but we did find better performance for CADe on 5-9mm serrated lesions subgroup CADe 0.15 (SD 0.45) versus WLE 0.06 (SD0.24) for aRR = 2.99 [1.42-6.33] p = 0.04.

There were no differences on polyp (CADe 58.3 % vs WLE 50.0 % [RR 0.80 0.60-1.07] p = 0.14), adenoma (CADe 33.3 % vs WLE 37.1 % [RR 1.03 CI 0.81-1.30] p = 0.69) or serrated detection rate (CADe 38.7 % vs WLE 26.7 % [RR 0.83 CI 0.65-1.05] p = 0.12).

We stratify the endoscopist by their detection rates on high (ADR ≥ 35 %) and low (ADR < 35 %) detectors. For low detectors there was a trend but no significant higher APC on CADe arm but for high detectors the trend for better performance was on WLE arm.

Finally we founded an increase on false positives based on histopathology on CADe arm CADe 0.23 (0.7) versus WLE 0.08 (0.31) aRR 2.79 (95 % CI 1.35-5.00) p = 0.04.

Conclusions CADe did not improve the detection of adenomas in Lynch syndrome when compared to WLE standard colonoscopy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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Endoscopy 2024; 56: S1–S503

OP108 Randomized controlled trial of a cloud-based artificial intelligence polyp detection system (CADDIE)

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Aims In recent years, several randomized controlled trials have evaluated the role of artificial intelligence (AI) to increase the detection of colorectal polyps during colonoscopy. However, previous studies are limited to locally deployed hardware AI systems and largely focus on expert colonoscopists in screening populations. CADDIE is a cloud-based CADe system that receives the live image stream from the endoscopy screen via the hospital's internet network, where the AI algorithm processes the images and outputs an overlay bounding box on the endoscopy screen, highlighting the suspected location of a polyp.

In this multi-centre, prospective randomized controlled parallel design trial, we aimed to assess whether the real-time cloud-based AI polyp detection system CADDIE improves adenoma detection rate (ADR) in symptomatic and surveillance patients when colonoscopy is undertaken by non-expert colonoscopists in routine clinical settings.

Methods We enrolled 739 patients between April 2021 and Dec 2022, scoped by 32 endoscopists with a baseline ADR of less than 30 % from 9 UK hospitals. Participants scheduled for surveillance or symptomatic colonoscopy aged 18 years or older were invited to participate. Exclusions included inpatient procedures, known inflammatory bowel disease, colorectal cancer, polyposis syndromes, previous resections, and planned therapy. Each endoscopist was limited to a maximum of 60 procedures and required to perform more than 20 % of this target. Patients were block randomised in a 1:1 ratio to standard of care (SOC) or intervention (CADDIE), stratified by endoscopist and indication. The primary end point was the difference in endoscopist ADR between intervention and SOC arms.

Results There were 615 evaluable patients. ADR was significantly higher in the CADDIE group compared to SOC (33.3 % vs 25.2 %) with an odds ratio (OR) of 1.46 (95 % CI 1.01 – 2.10), p = 0.04. Proximal ADR was also higher in the CADDIE group (OR 1.67 (95 % CI 1.09, 2.56), p = 0.02). Over 50 % more adenomas were removed per colonoscopy (APC) in the CADDIE group compared to SOC (OR 1.49 (95 % CI 1.08 – 2.06, p = 0.02). Although results were not significant for other outcomes, the general trend was towards higher detection in the CADDIE group.

We excluded 124 patients from data analysis as pre-defined in the study protocol (e.g. endoscopist moving hospital before meeting minimum recruitment target). Despite this, the study reached its recruitment goals.

Conclusions We have shown a significant improvement in adenoma detection using the cloud-based CADDIE AI system in a non-screening population across a wide range of UK hospitals, where the endoscopists were independent but not experts. This increased detection was also seen in the proximal colon, where many hard to detect lesions are found. Furthermore, the total numbers of adenomas removed per colonoscopy, which is increasingly recognised as an important metric of procedure quality, was significantly increased.

Conflicts of interest Laurence B Lovat has received medical consultancy fees from Odin VisionRawen Kader has received medical consultancy fees from Odin Vision

Understanding and addressing risk factors in early gastric cancer

25/04/2024, 15:30 – 16:30 **Room 11**

OP109 Gastric cancer risk assessment of gastritis in clinical practice by using the histological information recommended by the updated Sydney system: The OLGIMA system

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Aims The OLGA system assesses both gastric atrophy (GA) and intestinal metaplasia (IM) together as a severity overall which must be estimated by pathologists. The OLGIM system is based on the IM severity recommended by the updated Sydney system. Thus, the final OLGIM score can be estimated by any clinician. Currently, there is no system that addresses the severity of both the GA and IM as they are reported following the updated Sydney system recommendation. This study aimed to assess the utility of a new system, OLGIMA (Operative Link on Gastric IM and GA assessment), as a tool to identify patients at higher risk for GC in daily practice.

Methods Consecutive first diagnostic UGI endoscopies performed for any indication in patients older than 18 years old were recorded prospectively in 21 Spanish hospitals between April 2021 and July 2023. Protocolized gastric biopsies were taken according to the Updated Sydney consensus. We excluded patients with dysplasia, any malignancy, suspicion of autoimmune chronic atrophic gastritis, and lack of histological data. The severity of both GA and IM was assessed in the antrum (including incisura) and corpus following the updated Sydney system. After that, we considered the most advanced severity (none:0; mild:1; moderate:2; marked:3) provided for any of them in each of the two topographical areas. Then, the OLGIMA staging was done according to the same methodology used by the OLGA and OLGIM systems.

Results A total of 998 patients were included. The median age was 57 (IQR 46 – 67), and 64 % were women. Hp infection was identified in 334 (35 %) patients (19 % active infection and 16 % eradicated). GA was identified in 192 (19.2 %) patients which was limited to the antrum in 113 (11.3 %) cases and extensive in 79 (7.9 %). IM was identified in 159 (15.9 %) patients which was limited to the antrum in 114 (11.4 %) cases and extensive in 45 (4.5 %). According to IM severity, 27 (2.7 %) patients were OLGIM III/IV. According to GA severity, 22 (2.2 %) patients were significantly extensive. The OLGIM system would have missed 12 (1.2 %) patients with GA at higher risk. Considering both criteria, we would have detected 39 (3.9 %) patients at higher risk in total (17 OLGIM III-IV, 12 extensive significative GA, and 10 both OLGIM III-IV and extensive significative GA). The new OLGIMA system categorized all 39 (3.9 %) patients, OLGIM III-IV and significantly extensive GA, in the high-risk group (OLGIMA III/IV). [1–3]

Conclusions The new OLGIMA system (based on the severity of IM and GA recommended by the updated Sydney system) was able to detect patients at higher risk including all cases OLGIM III/IV and also with advanced GA. The OLGIMA staging is much simpler and it can be estimated by any clinician regardless of whether the biopsy from incisura was taken.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP110 A pre-training model for intestinal metaplasia recognition in the gastric corpus: preliminary data analysis

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Aims Gastric cancer (GC) is a significant healthcare concern and the recognition of high-risk patients is crucial [1]. The common mechanism for the progression of GC is the Correa cascade, which outlines a multi-step progression from chronic gastritis through atrophic gastritis, intestinal metaplasia (IM), dysplasia and finally GC. The detection of IM in the stomach is not always easy, especially when it is focal. While electronic chromoendoscopy has demonstrated high diagnostic accuracy for IM [2], its limited availability, and the variable expertise of endoscopists pose challenges. Additionally, the potential of artificial intelligence (AI) to aid endoscopists has obtained significant attention. This study aims to develop a deep-learning system to assist in IM diagnosis based on endoscopic image patches.

Methods A retrospective dataset of endoscopic images from gastroscopies conducted at Sant'Andrea Hospital, La Sapienza University of Rome between January 2020 and May 2023 was collected. All the gastroscopies were performed using both White Light Imaging (WLI) and Blue Light Imaging (BLI) assessment with biopsies conducted according to the updated Sydney system protocol or through targeted biopsies. Only BLI-assessed gastric corpus images were employed for the machine learning model development. We used a dataset of coarsely segmented images to extract patches and we cast the problem to a classification task over patches. Then we used a voting scheme over patches to classify an entire image.

Results The dataset included 825 high-resolution corpus BLI images from 193 patients with 382 images classified as GIM-negative and 443 as GIM-positive. From each image we extracted 20 patches (with possible overlap) of size 200x200 pixels. With this method we obtained a dataset of patches that we split into training-set (3524 negative and 4880 positive samples), validation-set (448 negative and 640 positive samples), and test-set (480 negative and 560 positive samples). On the patches test-set we obtained a specificity of 71 %, and a sensitivity of 83 %. The classification of the entire image was obtained through a learnable voting scheme, in which each patch expressed its vote (positive or negative). We used the validation set to optimize the following hyperparameters: the decision threshold and the number of positive patches that made the entire image classified as positive. With the best configuration we obtained a specificity of 73 % and a sensitivity of 97 %, but of course we could use a different voting scheme to trade specificity with sensitivity at need.

Conclusions The study addresses common challenges in medical scenarios, such as limited data availability and the need to work with a specific dataset, without access to pre-trained models. Despite constraints, the proposed approach delivers promising results suitable for preliminary data screening, showing a high specificity and sensitivity. Furthermore, using the voting scheme, the best configuration showed a sensitivity of 97 % that could permit to aid the endoscopist in the diagnosis of gastric intestinal metaplasia.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP111 Risk factors for proximal gastric adenomas in patients with familial adenomatous polyposis

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Aims Gastric cancer is a more recently recognized challenge in the management of familial adenomatous polyposis (FAP). Proximal gastric adenomas are believed to be precursor lesions. This study aimed to describe the incidence of these gastric adenomas in patients with FAP and identify potential risk factors for their development.

Methods Data was retrospectively collected from FAP patients who had undergone esophagogastroduodenoscopy (EGD) between 2015 and 2023 at our academic center. All diagnoses of gastric adenomas were histologically confirmed. A multivariable Cox proportional hazard regression analysis was performed to identify risk factors for proximal adenoma development.

Results Among the 196 FAP patients who underwent EGD, 33 (17 %) were diagnosed with proximal gastric adenomas. The median age at diagnosis was 48 years (range 19-80). A total of 105 proximal adenomas were identified, with 61 % detected in female patients. The majority (89 %) of the proximal gastric adenomas were found in patients with at least 50 fundic gland polyps. High-grade dysplasia was found in 10 (9.5 %) proximal gastric adenomas. In the Cox proportional hazard regression analysis, carpeting fundic gland polyposis ≥ 100 (HR = 8.94; $p < 0.001$), biliary reflux following duodenectomy (HR = 1.92; $p = 0.017$) and the use of proton pump inhibitors (HR = 1.78 ; $p = 0.014$) were risk factors for proximal gastric adenoma development. An advanced Spigelman stage (III/IV) (HR = 0.37; $p < 0.001$) was associated with a significantly lower risk of developing proximal gastric adenoma compared to a lower Spigelman stage (0-II) .

Conclusions Proximal gastric adenomas are commonly detected in FAP patients. Carpeting fundic gland polyposis (≥ 100), biliary reflux and use of PPIs were identified as risk factors for their development. These results emphasize the need for careful assessment of the gastric mucosa in FAP patients, particularly in those with numerous fundic gland polyps where adenomas might be more easily missed. Those with advanced duodenal disease had a significantly lower risk of developing proximal gastric adenomas, indicating that endoscopic surveillance of the upper-gastrointestinal tract should not solely rely on the Spigelman stage.

Conflicts of interest • Barbara A.J. Bastiaansen: speakers' fee from Olympus, Tillotts Pharma AG and Ovesco Endoscopy AG • Evelien Dekker: endoscopic equipment on loan of FujiFilm and Olympus, research grant from FujiFilm, consultancy for FujiFilm, Olympus, Tillots, GI Supply, CPP-FAP, PAION and Ambu, and speakers' fee from Olympus, Roche, GI Supply, Norgine, IPSEN, PAION and FujiFilm.

OP112 Helicobacter pylori – uninfected early gastric cancer: proposal for a new histological classification and clinicopathological and endoscopic features

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DOI 10.1055/s-0044-1782812

Aims In recent years, the frequency of *Helicobacter-pylori* (*Hp*) – uninfected gastric cancer (HPUGC) is expected to increase relatively with the spread of *Hp* eradication in Asian countries. However, HPUGC is thought to be more difficult to detect and diagnose endoscopically rather than *Hp*-associated gastric cancer. Therefore, we aimed to establish a new endoscopic diagnostic system of HPUGC and elucidate the clinicopathological and endoscopic features of HPUGC.

Methods A total of 187 lesions with HPUGC treated by endoscopic treatment (ESD / EMR / polypectomy) at our hospital between August 2009 and June 2023 were enrolled and classified histologically, and their endoscopic and clinicopathological features were analyzed retrospectively.

Results All HPUGC were histologically classified into 9 types as follows: 1. gastric adenocarcinoma of fundic-gland type (GAFG: n = 64, 34.2 %, U/M/L = 47/14/3, whitish, SMT like lesion)[浩上1] , 2. gastric adenocarcinoma of fundic-gland mucosal type (GAFGM: n = 12, 6.4 %, U/M/L = 9/3/0 reddish, SMT like lesion), 3. undifferentiated adenocarcinoma (UDA: n = 17, 9.0 %, U/M/L = 0/7/10, signet ring cell carcinoma, whitish flatly depressed lesion), 4. adenocarcinoma of gastroesophageal junction (n = 1, 0.5 %, reddish elevated lesion), 5. gastric foveolar-type neoplasia with raspberry-like appearance (n = 75, 40 %, U/M/L = 41/33/1, reddish protruded lesion), 6. gastric-phenotype differentiated adenocarcinoma (GDA) of whitish flatly elevated lesions (n = 4, 2.1 %, U/M/L = 4/0/0, surface structure shows granular and nodular shape), 7. Other GDA (n = 4, 2.1 %, U/M/L = 2/1/1, reddish elevated lesion), 8. gastrointestinal-phenotype differentiated adenocarcinoma (GIDA: n = 7, 3.7 %, U/M/L = 0/0/7, reddish depressed lesion), 9. gastric neoplasia with gastric polyps (n = 3, 1.6 %, fundic gland polyp (FGP), FGP associated with proton pump inhibitor, and hyperplastic polyp, U/M/L = 0/0/3). Magnifying endoscopy with narrow-band imaging (M-NBI) was performed in 170 out of the 187 lesions. In 170 lesions, 103 lesions were diagnosed as non-cancer by M-NBI (60.6 %). Especially, GAFG (64/64, 100 %), GAFGM (8/12, 66.7 %), and UDA (11/17, 64.7 %) were difficult to diagnose as cancer by M-NBI because of the coverage and/or mixture with a non-neoplastic mucosa or well-differentiated adenocarcinoma with low-grade atypia.

Conclusions This study revealed that HPUGC can be classified into 9 histological types and further characterized by their location, color, and macroscopic findings. Most of HPUGC were difficult to diagnose as cancer by M-NBI. For accurate diagnosis of HPUGC, it may be necessary to fully understand histological classification and endoscopic features of these lesions using white light imaging and M-NBI based on these histological characteristics and to take a precise biopsy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP113 Detection of chronic atrophic gastritis at higher risk for gastric cancer in clinical practice: A multicentre study using criteria by different scientific societies

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DOI 10.1055/s-0044-1782813

Aims We aimed to assess the detection of patients with chronic atrophic gastritis (CAG) at higher risk in clinical practice according to different criteria like the OLGIM system, the Spanish, the European (MAPS), the Italian, the American (AGA), and the British (BSG) recommendations.

Methods Consecutive first diagnostic gastroscopies performed for any indication in patients older than 18 years old were recorded prospectively in 21 Spanish hospitals between April 2021 and July 2023. Protocolized gastric biopsies were taken according to the Updated Sydney consensus. We included patients with GA or IM. We excluded patients with dysplasia, any malignancy, and suspicion of autoimmune chronic atrophic gastritis. According to Sydney's recommendation, the severity of both GA and IM was separately assessed in the antrum (including incisura) and corpus. OLGA system is not usually reported in clinical practice. Different high-risk criteria were identified and included: (A) OLGIM III-IV, (B) extensive IM but clinically significant, (C) extensive IM regardless of its severity, (D) incomplete IM, (E) extensive GA but clinically significant, and (F) extensive GA regardless its severity. High-risk patients according to different guidelines were: the Spanish [(A or B) and D], MAPS (A or B or D or E), the Italian (A or B or E), AGA (A or C or D or E) and BSG (C or F).

Results A total of 297 patients with atrophy or IM were included. The mean age was 63 (SD ± 0.7) years old and 57 % were women. *Hp* infection was identified in 118 (40 %) patients (23 % active infection and 17 % eradicated). Regarding IM, 27 (9 %) patients were OLGIM III/IV, 60 (20 %) patients had extensive distribution, but only 13 (4 %) cases were extensive and clinically significant. The OLGIM score was not possible to be estimated in 40 (14 %) patients and the type of IM was not reported in 122 (41 %) patients. Regarding atrophy, 94 (32 %) patients had extensive distribution, but only 25 (8 %) cases were extensive and clinically significant. The severity of GA was not reported in 11 (4 %) cases. Applying the high-risk criteria by different clinical guidelines, patients at higher risk would have been: the Spanish 8 (3 %) cases, OLGIM III-IV 27 (9 %) cases, the Italian 42 (14 %) cases, MAPS 71 (24 %) cases, AGA 105 (35 %) cases, and BSG 114 (38 %) cases. [1–7]

Conclusions The high-risk criteria for CAG differ among scientific societies which could lead to a variation from 3 % to 38 % among patients with CAG. Since the histological report and endoscopic sampling are not perfect, the BSG criteria would be the most sensitive in clinical practice. The histological report must be improved.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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Treatment of biliary stones and microbiological profile of the bile

25/04/2024, 15:30 – 16:30 **Room 10**

OP114 Prospective multi-center Audit of "real-life" Common Bile Duct Stones (CBDSs) clearance at Index Endoscopic Retrograde Cholangio-Pancreatography (ERCP)

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DOI 10.1055/s-0044-1782814

Aims To evaluate the outcome of CBDS clearance at Index ERCP and identify it's predictors

Methods In this prospective cross-sectional study from 2 centers from Eastern India, consecutive patients (age > 12 years) with CBDSs undergoing index ERCP with native papilla and satisfying pre-determined inclusion criteria, were enrolled from August 2020-July 2021. Demographic, clinical, radiological and ERCP data were recorded in a structured proforma. The performing endoscopist entered the details of Cholangiography including number, size, location and shape of stones, CBD diameter, distal angulation, etc. and interventions performed, e.g., cannulation and sphincterotomy, stone-extraction with balloon/basket, use ancillary Endoscopic Papillary Large Balloon Dilatation (EPLBD) or Mechanical Lithotripsy (ML), etc. All patients were followed for 14 days post-ERCP for capturing complications. Those who underwent biliary stenting (for failed clearance, etc.) were followed, 2 monthly, for 6 months. All patients were again contacted at the end of 1-year to record the ultimate outcome of ERCP for CBDSs. Statistical analysis was done according to standard methods. A two-tailed p-value < 0.05 was considered significant

Results 414 patients, age(mean ± SD) 45.6 ± 15.1 years; 311(75 %) females; 384(93 %) outpatients were enrolled. Pre-ERCP imaging revealed gallbladder-in-situ in 346(84 %), dilated CBD in 383(94 %) and largest CBDS diameter ≤ 10mm in 259(70 %). At ERCP, pre-cut access was needed in 70(17 %), 203(49 %) had single CBDS, 69(16 %) had > 3 calculi. 332(80 %) of CBDSs were round/elliptical/oval; barrel-shaped in 16(4 %); impacted in 22(5 %). CBD distal to stone appeared narrow in 46(11 %); distal CBD lateral angulation appeared visually ≤ 135˚ in 124(30 %). At end of ERCP, endoscopists recorded complete clearance in 347(84 %); stent was placed in 29. 2/29 had residual CBDS during stent extraction during the 6-month follow-up; thus, 345(83 %) had true complete clearance. ML was used in 14 (3 %) and EPLBD in 37(9 %). 69(17 %) developed a post-ERCP Incident and 44(11 %; single in 41, dual in 3) recorded an Adverse Event(AE) within 14-days. On univariate analysis, true CBDS(s) clearance was more frequent in those with: clinically absence of Charcot's dyad (68vs52 %, p = 0.01) & incidental stone detection (6vs0 %; p = 0.03); pre-ERCP radiology showing absence of dilated intrahepatic biliary radicles (44vs23 %; p = 0.003) and largest CBDS diameter ≤ 10mm (76vs33 %; p < 0.001); Cholangiography showing single CBDS (52vs33 %; p = 0.004), round/elliptical/oval CBDS (84vs59 %; p < 0.001) and CBD distal to stone not narrow (95vs61 %; p < 0.001). On multivariate analysis, largest CBDS diameter ≤ 10mm on pre-ERCP Imaging [OR(95 % CI): 8.9(4.3-18.4); p < 0.001], and at cholangiography, single calculus [OR: 3.1(1.5-6.3); p = 0.002] and distal CBD not narrower than the CBDS(s) [OR: 21.4(8.7-53.1); p < 0.001] were independent predictors of true CBDS clearance at index ERCP

Conclusions CBDS size and number and distal bile duct anatomy determines successful CBDS clearance.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP115V Double EUS-guided bypass (DEB) combining hepaticogastrostomy (HGS) and lumen-apposing metal stent duodeno-jejunostomy (LAMS-DJ) for massive hepatolithiasis in Roux-en-Y hepaticojejunostomy (RYHJ)

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DOI 10.1055/s-0044-1782815

Abstract Text Antegrade endoscopic biliary interventions via HGS or retrograde via enteroscopy are possible in RYHJ. EUS-guided transhepatic cholangiography confirmed large hepatolithiasis 4-years after RYHJ. HGS with antimigration FCSEMS is performed for temporary drainage and for jejunal targeting under EUS. Occlusion cholangiogram via HGS provides distention of afferent jejunal limb for EUS-guided access anastomosis by 15x10-mm LAMS placement from the bulb. During subsequent sessions, several gastroscope passages across LAMS-DJ into bile duct are needed for mechanical and cholangioscopy-guided lithotripsy until duct clearance is achieved. Bilateral 7F pigtails are left-in-situ to minimize recurrences. HGS stent is removed. No adverse events (AE) ensued post-procedure sessions, during the treatment period or post-treatment follow-up. Larger disease burden may be addressed by DEB in RYHJ, minimizing AE risk [1–2].

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/b1b1c7e8-4082-4bf4-bcbc-0b86e6766597/Uploads/13821_EDEE_ESGE%202024.mp4

Conflicts of interest Manuel Perez-Miranda, MD, PhD; Consultant and Speaker: Boston-Scientific, MITech, Olympus, Medtronic, Lumendi.

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OP116 Cholangiopancreatoscopy SpyGlass-DS experience in a Spanish tertiary hospital

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DOI 10.1055/s-0044-1782816

Aims Cholangiopancreatoscopy has become an essential tool in ERCP. Our aim is to evaluate its efficacy and safety using the SpyGlass-DS device in a Spanish tertiary center.

Methods We conducted a retrospective study including the cholangiopancreatoscopies performed between July 2016 and October 2023 in a Spanish tertiary center using the Spyglass DS/DSII systems. In addition to baseline patients characteristics we collected previous procedures,sedation,indication,procedure related variables, success and complicatons. Success was defined for lithotripsy as the ability to clear the bile duct endoscopically and for strictures as the ability to evaluate the stricture and biopsy it if needed. Benign stenosis definitive diagnosis was considered if there were no signs of malignancy/atypia in the pathological anatomy and if during follow-up of more than 6 months, there were no clinical or radiological signs of malignancy. Complications were diagnosed and graded following ESGE clinical guideline [1]

Results 124 examinations were performed on 108 patients(average age 67.7 years, SD 17.9; male/female 53.7/46.3 %). 71.9 % were conducted in the lateral decubitus position with sedation, and 28,1 % in prone position under general anaesthesia. 95.2 % were biliar and 4.8 % were pancreatic. Prior procedures included sphincterotomy in 64.5 % of cases, sphincteroplasty in 25 %, biliary stents in 45.2 %, both biliary and pancreatic stents in 8.9 %, and SpyGlass examinations in 12.1 %. Indications were 57.3 % for stenosis, 23.4 % for lithotripsy, 8.1 % for the exclusion of residual stones, 4 % for evaluating other intraductal lesions, 2.4 % for assesing radiofrecuency ablation,and 6.4 % for others. Regarding lithiasis, the location in the extrahepatic bile duct/hilum/intrahepatic/pancreatic was 71.1 %/4.4 %/17.8 %/6.7 %. Stone clearance was achieved in one session in the 79.5 %, in two sessions in the 12.8 % and in 3 sessions in the 7.7 %. For stenosis, locations were in the extrahepatic bile duct (45.3 %), hilum/intrahepatic (49.3 %), and pancreas (5.3 %). Biopsies were performed in 78.9 % of cases. According to optical diagnosis 31.6 % of the stenosis were benign, 44.7 % were malignant and 23.7 % indeterminate. By Histological examination 39.5 % were benign, 28,9 % malignant, 14,5 % indeterminate and 15,8 % had insufficient simples. 44.7 % had a definitive benign diagnosis, 48.7 % definitive malignant and 6.6 % are still being monitored. The total technical success rate was 85.5 %, with 11.3 % having partial success. Total clinical success rate was 79.8 %, with 18.6 % achieving partial success. As a preventive measure against complications, all patients received antibiotic. Additionally, 96.8 % received indomethacin suppositories, 12.1 % Ringer's lactate and 12.9 % pancreatic stents. The adverse effects rate was 8.8 % (1.6 % severe), including pancreatitis (4.8 %), cholangitis (1.6 %), bacteremia (0.8 %) and bleeding (0.8 %).

Conclusions The results of this study show high technical and clinical success with a good safety profile. However, the histology still reveals suboptimal results

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP117 Microbiological assessment of bile in patients undergoing Endoscopic Retrograde Cholangiography: the “MICROBILE” Registry

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DOI 10.1055/s-0044-1782817

Aims Biliary tree has been considered sterile under normal conditions. However, recent evidence revealed rich microbial communities in the biliary tract of patients affected by pancreaticobiliary disorders. We performed a prospective observational study aimed to evaluate the prevalence and the resistance profile of biliary pathogens in patients with naïve papilla with several pancreatobiliary diseases.

Methods 222 patients with naive papilla undergoing ERCP for any indication were prospectively enrolled from July 2022 to August 2023. One bile sampling was performed after bile duct cannulation, while a second one was collected at the end of the procedure. Clinical data, bile cultures and clinical follow-up were collected.

Results The majority of pre-sphincterotomy (n = 148; 66,6 %) and post-sphincterotomy bile cultures (n = 141; 67,5 %) were positive for at least 1 bacterium. Gram-positive bacteria were the most represented both in pre- and post-sphincterotomy biliary samples (respectively 61 % and 62 %), with Enterococcus spp and E.coli as the most frequent Gram-positive and Gram-negative species isolated. No differences were found in microbial community before and after sphincterotomy. Polymicrobial flora was detected in 27,9 % (n = 62) of pre-sphincterotomy biliary samples. Enterococcus spp was more represented in patients with benign jaundice (p = 0,01) and in patients with acute cholangitis (p = 0,003). Age ≥ 60 years (OR:3,10; p < 0,001), CCI ≥ 4 (OR:2,45; p = 0,003), fever (OR:2,09; p = 0,01), ongoing antimicrobial therapy (OR:1,87; p = 0,03) and positive blood culture (OR:2,8; p = 0,04) were risk factors for positive biliary cultures, with values of CRP > 5 mg/L independently related to positive pre-sphincterotomy biliary cultures (OR:1,915; p = 0,047) at multivariable analysis. MDR strains were detected in 18 % of pre-sphincterotomy biliary samples, with a higher prevalence of ESBL bacteria (n = 12) and E.faecium VRE (n = 11). Fever (OR:2,24; p = 0,04) and ongoing antimicrobial therapy (OR:2,44; p = 0,03) were significantly associated with pre-sphincterotomy MDR bacteria detection, while antimicrobial therapy in the last three months was identified as an independent risk factor for MDR biliary bacteria in the multivariable analysis (OR:3,968; p = 0,003).

Conclusions Bile of patients with pancreaticobiliary disorders is not a sterile environment, with the isolation of MDR strains. Several clinical and biochemical features can be identified as potential risk factors for bacteriobilia and biliary MDR bacteria detection.

Conflicts of interest Lecturer for Steris, Boston Scientific, Fujifil, Q3Medical

OP118 Factors Associated with Infectious Complications Following Endoscopic Retrograde Cholangiopancreatography in Liver Transplant Recipients: Insights from a Single-Center Study

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DOI 10.1055/s-0044-1782818

Aims This retrospective single-center study aimed to identify risk factors associated with infectious complications following endoscopic retrograde cholangiopancreatography (ERCP) in liver transplant recipients.

Methods The study involved a retrospective analysis of 285 elective ERCP interventions performed in 88 liver transplant patients at a tertiary care center. Our analysis included univariable and multivariable regression analyses, cox regression, and log-rank tests to assess the influence of various factors on the incidence of infectious complications. The primary outcome measure for this study was the occurrence of an infection after ERCP. Infection was defined by established criteria (Development of otherwise unexplained fever exceeding 38 °C within three days following the procedure, leading to the initiation of antibiotic therapy).

Results Among the 285 ERCP interventions, cases presented isolated anastomotic stenosis in 175 instances, ischemic type biliary lesion (ITBL) in 103 cases, and choledocholithiasis in 7 cases. Bile duct interventions were performed in 96.9 % of all ERCPs. Infections occurred in 46 cases (16.1 %). Independent risk factors for infection included male sex (OR 24.19 [CI 4.36-134.21]), prednisolone therapy (OR 4.5 [CI 1.55-13.04]), ITBL (OR 4.51 [2.11-9.60]), sphincterotomy (OR 2.44 [1.05-5.67]), cholangioscopy (OR 3.22 [1.28-8.11]), dilatation therapy of the bile ducts (OR 9.48 [1.24-72.33]), and delayed prophylactic antibiotic therapy (>1 hour after ERCP) (OR 2.93 [1.36-6.27]). Moreover, infections following previous ERCP interventions were associated with an increased incidence of infections following future ERCP interventions ($p<0.0013$).

Conclusions In liver transplant recipients undergoing ERCP, our study identified male gender, prednisolone therapy, and complex bile duct interventions as independent risk factors for infections. Delayed antibiotic treatment further heightened this risk. Patients with ITBL exhibited notable susceptibility due to incomplete drainage. Additionally, a history of post-ERCP infections signaled higher future risks, emphasizing the importance of close monitoring and timely antibiotic prophylaxis in this population.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP119 Multi drug resistant organism infections related to ERCP in the post covid era. A retrospective comparison study

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DOI 10.1055/s-0044-1782819

Aims Endoscopic retrograde cholangiopancreatography (ERCP) is an established therapeutic modality in Hepato-pancreato-biliary (HPB) disorders. Blood stream infection (BSI) is a common complication. Incidence of post-ERCP BSIs caused by multi-drug resistant (MDR) or extensively drug resistant (XDR) pathogens has risen in the last few years, especially in the period following the COVID-19 pandemic (at least 15 % from 2019 to 2020). Any proportionate increase in post ERCP MDR infections has not been studied.The aim of this study is to document the incidence of post-ERCP MDR infections and to identify potential patient and procedure-related risk factors, by comparing data collected before and after the COVID-19 pandemic outbreak.

Methods A retrospective comparative study was conducted, including patients who underwent ERCP in the University Hospital of Patras within two distinct chronological periods: January 1st 2015 – December 31st 2017 and January 1st 2021-July 31st 2023. All data were retrieved from patients' personal files, including demographic, medical and procedure related factors previously associated with post ERCP infections. All patients who developed infectious complications accompanied by a positive blood culture within 30 days following intervention were enrolled in the study. Isolated microorganisms were documented and classified.

Results In total, 1229 and 1214 ERCPs were performed in the above study periods respectively. A total of 93 MDR infections were identified. 34 pts (36,6 %) pre-COVID and 59 (63,4 %) cases post-COVID, accompanied by a substantial change in the species of isolated pathogens. The median days of hospitalization were 10 days. Univariate analysis identified several independent predictors of microbial resistance in the total population: Group (before/after pandemic) ($p = 0.024$), Hospitalization Days ($p = 0,031$), HPB malignancy ($p = 0,037$), recent intervention/operation ($p = 0,055$), malignancy (any, $p = 0,051$). However, following multivariable analysis only the post covid19 era was highlighted as an independent risk factor for the development of MDR secondary infection **($p = 0.04$).**

Conclusions Despite increased awareness and measures for prevention of MDR infections in ERCP, they remain an increasing concern. Any patient and procedure related risk factors that have been traditionally linked to post-ERCP infections were investigated in this study and seem to exhibit an unchanged state of contribution. What's new is that in line with reports from other health provider services the pandemic period appears to have significantly added to the deterioration of this condition. Several factors have been implicated: over and misuse of antibiotics, increased use of corticosteroids / disease immunomodulators, the virus itself, cross contamination, reallocation of antimicrobial stewardship resources and policies and more. These findings indicate a complex and multifaceted interrelationship and an interdependency of determinants of microbiological resistance. [1–8]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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WEO Joint Session: How to avoid Post Colonoscopy Colorectal Cancers (PCCRCs)

25/04/2024, 15:30 – 16:30 Auditorium

OP314 Risk factors for metachronous colorectal cancer or advanced lesions after endoscopic resection of serrated polyps: a systematic review and meta-analysis

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DOI 10.1055/s-0044-1782820

Aims Serrated polyps (SPs) are precursors to 30 % of colorectal cancers (CRCs). However, there are discrepancies about which SPs require surveillance and at what intervals, with recommendations adapted from those applied to adenomas in the absence of solid evidence in this regard. Our aim was to assess which PS risk characteristics are associated with a higher risk of metachronous CRC or total metachronous advanced lesions (TMAL).

Methods We systematically searched Pubmed, EMBASE, and Cochrane for cohort, case-control studies, and clinical trials of CRC or TMAL [advanced adenoma (AA) or advanced SP (ASP)] incidence at surveillance stratified by baseline SP size, dysplasia, and location. We define ASP as those > 10mm or with dysplasia. CRC and TMAL incidences per 1,000 person-years (p-y) were estimated for each risk characteristic. We performed a meta-analysis by calculating pooled relative risks (RR) using a random-effects model. Heterogeneity was assessed with the I^2 statistic.

Results 4,840 studies were reviewed and 17 included, with 495,196 patients (mean age 59.5 years, 60 % men). Mean follow-up time was 4.7 years. CRC incidence per 1,000 p-y was 2.1 for ASP, 1.5 for SP > 10mm, 5.9 for SP with dysplasia, 1.2 for proximal SP, 0.5 for non-advanced SP, and 0.4 for normal colonoscopy (NC). TMAL incidence per 1,000 p-y was 55.0 for ASP, 70.6 for SP > 10mm, 93.0 for SP with dysplasia, 45.1 for proximal SP, 13.4 for non-advanced SP y 10.3 for NC. Metachronous CRC risk was higher in ASP vs non-advanced SP (RR 1.84, 95 % CI 1.11-3.04), and vs NC (RR 2.92, 95 % CI 2.26-3.77); in SP > 10mm vs < 10mm (RR 2.61, 95 % CI 1.43-4.77), and vs NC (RR 3.52, 95 % CI 2.17-5.69); and in SP with dysplasia vs NC (RR 2.71, 95 % CI 2.00-3.67). No significant differences in CRC risk were found in SP with dysplasia vs SP without dysplasia (RR 2.06, 95 % CI 0.41-10.35) or in proximal vs distal SP (RR 1.90, 95 % CI 0.78-4.63) or vs NC (RR 1.41, 95 % CI 0.56-3.53). TMAL risk was higher in proximal SP vs NC (RR 2.02, 95 % CI 1.45-2.81).

Conclusions Metachronous CRC risk is significantly higher in patients with ASP at baseline colonoscopy, with risk magnitudes similar to those described for AA, supporting the current recommendation for 3-year surveillance in patients with ASP.

Conflicts of interest RJ has received research grants from MSD, and has participated as an advisor to MSD, Norgine, Alpha-Sigma, and GISupply. The rest of authors have nothing to disclose.

Diving deep into the small bowel

26/04/2024, 08:30 – 09:30 Room 8

OP126 Capsule endoscopy for small-bowel surveillance in Lynch syndrome patients: a 20-year cohort experience

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Aims Lynch syndrome (LS) is an autosomal dominant hereditary disease caused by germline mutations in the DNA mismatch repair (path_MMR) genes. LS carriers harbor a high risk of developing early-onset gastrointestinal (GI) and extra-GI malignancies, including small-bowel (SB) cancer for which a consensus recommendation for screening is lacking [1], as recent evidence failed to demonstrate a clear benefit of SB cancer screening with capsule endoscopy (CE) [2]. Accordingly, our study aims to assess the effectiveness of SB cancer surveillance with CE in a large cohort of LS patients.

Methods We retrospectively included asymptomatic LS patients undergoing SB cancer surveillance with CE in two academic centers over 20 years (2003-2023). The diagnostic yield (DY) of CE for SB adenomas/adenocarcinomas was assessed, as well as patients' demographic and path_MMR distribution. Videos were interpreted by expert readers (> 1000 lifetime capsules).

Results 57 LS patients (31 females, 26 males) with different path_MMR distribution underwent 81 CE procedures. One patient was excluded from analysis for gastric CE retention.

The median age at the first CE examination was 55.5 years (56 patients; interquartile range [IQR] 41–64).

In the first screening round, CE detected 4 SB adenocarcinomas (2 in the jejunum and 2 in the ileum) and 4 SB polyps (2 in the ascending duodenum, 10 mm; 2 in the jejunum, 15 mm). The duodenal polyps were subsequently removed by device-assisted enteroscopy (DAE) (histology: tubular adenomas with low-grade dysplasia), whereas both jejunal polyps were considered CE false positives after negative DAE and magnetic resonance enterography (MRE). Therefore, the positive predictive value of CE was 75 %, with a DY for histology-confirmed pathology of 10.7 %.

16 patients underwent follow-up CE. Of these patients, 3 had a previous positive examination (2 with duodenal polyps and 1 with adenocarcinoma) in the first CE round. In the second-round examination, performed at a median interval of 27 months (IQR 15.5–42.25), all CE were negative (DY 0 %). Third- and fourth-round CE examinations have been performed so far in 6 (median interval 22.5 months) and 2 patients (median interval 21 months), respectively: one suspected jejunal polyp (size 10 mm) in the third round was considered CE false positive after negative DAE and MRE (DY 0 %). The overall median follow-up time in patients repeating CE (regardless of the number of rounds) was 42 months (IQR 22.25–59.5). No significant differences in the path_MMR distribution were found.

Conclusions Assuming all normal procedures were true negative (long follow-up, confirmatory tests), CE was effective in diagnosing SB malignancy in a large cohort of asymptomatic LS patients albeit with a considerable amount of false positives, requiring complementary imaging confirmation. Prospective studies are required to establish the potential role of standardized SB cancer surveillance protocols, considering the 0 % DY of CE in follow-up procedures.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP127 Role of capsule endoscopy and double-balloon enteroscopy in the management of adult patients with coeliac disease and persisting symptoms

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DOI 10.1055/s-0044-1782822

Aims Small bowel capsule endoscopy (CE) and double-balloon enteroscopy (DBE) are recommended for the diagnosis and monitoring of patients with nonresponsive or refractory coeliac disease (CD). Previous studies predominantly focused on the efficacy and safety of CE and DBE in this cohort. However, there is a paucity of data regarding the clinical profiles and outcomes of patients undergoing these investigations.

Methods We conducted a retrospective analysis of two prospectively maintained databases of all patients with CD who underwent CE and DBE between January 2017 and December 2022 at the National Centre for Refractory CD in England. Patient demographic, clinical and endoscopic data were collected, and clinically relevant outcomes were reported.

Results A total of 132 adult patients with coeliac disease and persisting symptoms (median age 53 years, 64.4 % female) underwent 146 CEs and 25 DBEs. The most common symptoms were diarrhoea (51.5 %), abdominal pain (37.8 %), bloating (34.8 %), and weight loss (29.5 %). The overall diagnostic yield of CE and DBE was 87.6 % and 92 %, respectively. Persistent atrophy was identified in 73.3 % of duodenal biopsies and 85.6 % of CEs. Following CE and DBE, 14 patients (10.6 %) were diagnosed with CD-related complications such as ulcerative jejunitis, strictures and malignancy. Seven patients (5.3 %) died over a median follow-up period of 17.4 months (IQR 1.5 – 44.0 months), with five of these deaths directly attributed to CD. Older age, weight loss and anaemia were associated with poor outcomes.

Conclusions The sequential approach of CE and DBE identified CD-related complications in almost 1 in 10 patients with nonresponsive or refractory CD. Older patients with persistent villous atrophy, weight loss and anaemia require close monitoring to help with the early diagnosis and management of complications.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP128 Diagnostic yield of AI-assisted capsule endoscopy reading: an interim analysis of campari-son between experts and trainees

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Aims Small bowel (SB) capsule endoscopy (CE) is burdened by long reading time, especially in CE training. The application of artificial intelligence (AI) might represent a key optimization strategy. Primary aim of this study was to measure the diagnostic yield (DY) of standard and AI-assisted readers, both experts and trainees, for pathological SB lesions. Secondary aim was to measure the DY for angiodysplasia (AVM) and for other types of lesions, and to compare the mean reading time of experts and trainees in both reading modalities.

Methods Fifty videos of patients who performed SB CE (Navicam, Ankon, China) for any indication from July 2021 to August 2022 were retrospectively evaluated by 2 experts (>500 cases) and 4 trainees (<5 cases). One expert reviewed all videos in stardard mode, the other in AI-mode. Trainees evaluated half videos in one modality and half in the other, crossing over four times. Pathological lesions included: AVM, blood, ulcer, erosion, suspected tumor. CE reading was timed from the first duodenal image to the first ciecal image, including the time spent to note the thumbnails.

Results Main indication for SB CE was suspected SB bleeding (76 %, n = 38/50). SB CE completion rate was 90 % (n = 45/50). Cleansing was deemed as adequate in 88 % of cases (n = 44/50, with the expert standard reader as reference). At a per-patient analysis, the DY of expert readers for SB lesions was the same in both reading modalities (DY 78 %, n = 39/50, p = 1). Among trainees, the DY for SB lesions was 78 % (n = 39/50, p = 1) in standard reading, and it increased to 82 % (n = 41/50, p = 0.803 in AI-assisted mode. In a subanalysis for AVM, the DY of experts was 62 % in both modalities (n = 31/50, p = 1). Among novices, the DY for AVM was 72 % when reading was AI- assisted (n = 36/50, p = 0.395), and 66 % when performed in standard mode (n = 33/50, p = 0.835). When other types of lesions were considered, the DYs of expert readers were comparable (DY 36 %, n = 18/50 for AI; DY 37 %, n = 19/50 for standard reading; p = 0.995). Similar values were observed for novices if AI-assisted (38 %, n = 19/50) or not assisted (36 %, n = 18/50). The utilization of AI-assisted reading significantly reduced mean reading time for both experts (43.7 vs 3.8 minutes, p<0.01) and novices (48.9 vs 5.4 minutes, p<0.01).

Conclusions This interim analysis shows comparable accuracy of standard and AI-assisted CE readings, regardless of the reader's expertise level. At the same time, the reading time spent to detect SB lesions is about 10 times shorter when reading is AI-assisted.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP129 Preparation Regimens to Improve Capsule Endoscopy visualization and diagnostic yield (Pre-pRICE) – a multicentric randomized trial

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DOI 10.1055/s-0044-1782824

Aims Current guidelines recommend bowel preparation before small-bowel capsule endoscopy (SBCE); however, the optimal protocol is yet to be defined. To determine the best timing for preparation in SBCE, we compared small-bowel visualization quality (SBVQ), diagnostic yield (DY), and patient-reported outcomes across purgative regimens.

Methods In this prospective, randomized (1:1:1:1), multicentric study (NCT05140057), patients with suspected small intestinal bleeding were randomized into G1 (1L of PEG + ascorbic acid [Moviprep] the night before SBCE), G2 (1L in the morning, up to 2 hours before SBCE), G3 (0.5L up to 2 hours before + 0.5L after the capsule reached the duodenum), and G4 (1L after the

capsule reached the duodenum). To assess DY, lesions were categorized as highly pertinent (P2) or less pertinent (P0 or P1). Small-bowel visualization quality (SBVQ) was evaluated using the Brotz score. Gastric and small-bowel transit times (TT) were measured. Patient tolerability was scored from 0 to 5, with higher scores indicating better tolerability.

Results A total of 387 patients was included; 59 % were female, and the median age was 73 (IQR 23). The exam completion rate was lower in G1 (90 %, p < 0.001). SBTT for patients receiving purgative before SBCE (G1 and G2) was longer than G3 and G4 (p = 0.001). SBVQ was better in patients receiving purgative after reaching the SB (p < 0.001): median of 7 for G1, 8 for G2, and 9 for G3 and G4. The overall DY of patients receiving intra-procedure purgatives (G3 + G4) was superior (42.7 vs 31.3 %, p = 0.02); significant differences were found in the second and third terciles. Likewise, G3 and G4 had a higher angioectasia detection (p = 0.04). Patients' satisfaction was significantly superior for G4 (median 4 points, IQR 1).

Conclusions The group that received the bowel preparation the night before SBCE had poorer outcomes. Intra-procedure purgative regimens reduced SBTT, enhanced visualization, improved DY, and increased angioectasia detection. G4 was the best-tolerated regimen.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP130 Intestinal preparation for small bowel capsule endoscopy: polyethylene glycol alone or polyethylene glycol with ascorbic acid?

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DOI 10.1055/s-0044-1782825

Aims Compare the rate of complete examinations, quality of bowel preparation, diagnostic yield, small bowel transit time and tolerability, in small bowel capsule endoscopy (SBCE), using 2 different protocols for intestinal preparation.

Methods Prospective, randomized study including consecutive patients submitted to SBCE. During the day before, all patients followed a clear liquid diet. In the day of the exam, the capsule was ingested with water and 100 mg of simethicone. Once the capsule reached the small bowel, patients ingested a booster, randomized into one of two protocols: protocol 1 using 1L of polyethylene glycol (PEG) or protocol 2 using 1L of PEG and ascorbic acid. The patients' bowel preparation was assessed using the Small Bowel CLEansing Assessment and Report (SB-CLEAR)[1]. Additionally, at the end of the exam, each patient responded to a questionnaire, answering if they ingested all the booster and what was their tolerability in a scale from 0 (very easy) to 5 (very difficult).

Results Included 100 patients, 49 from protocol 1 and 51 from protocol 2. Most patients were female (62.0 %), with a median age of 49 years. Thirty-nine patients had relevant findings in SBCE (39.0 %). There were 6 patients with an incomplete small bowel examination (6.0 %) and 12 with inadequate bowel preparation (12.0 %).

There were no statistically significant differences between patients from both protocols regarding sex and age ($p = 0.798$ and $p = 0.707$, respectively). The rate of complete examinations, adequate bowel preparation and diagnostic yield was comparable between both groups: 95.9 % *vs* 92.2 % ($p = 0.678$), 87.8 % *vs* 88.2 % ($p = 0.941$) and 46.9 % *vs* 31.4 % ($p = 0.111$), respectively. The same occurred with small bowel transit time (164 *vs* 161 minutes, $p = 0.620$) and SB-CLEAR score (8 *vs* 9, $p = 0.176$). Additionally, no significant differences were found between patients from both protocols, regarding the ingestion of the whole booster and the patients' tolerability: 83.7 % *vs* 82.4 % ($p = 0.860$) and 3 *vs* 4, in a 0-5 scale ($p = 0.703$), respectively. Considering the patients' tolerability, women reported a higher difficulty in ingesting the booster using a 0-5 scale, regardless of the protocol (4 *vs* 2, $p = 0.001$). No association was found between the patients' tolerability and age ($p = 0.307$). [1]

Conclusions The use of ascorbic acid associated with PEG solutions for intestinal preparation in SBCE was comparable to same volume PEG solutions alone in terms of rate of complete examinations, adequate bowel preparation and diagnostic yield. There were also no differences in the ingestion of the whole booster and patients' tolerability between the use of PEG alone or PEG with ascorbic acid. Finally, women report more difficulty in tolerating intestinal preparation for SBCE, regardless of the protocol.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP131 Intestinal ultrasound measures are highly correlated with small bowel Lewis score among patients with active Crohn's disease

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DOI 10.1055/s-0044-1782826

Aims Small-bowel assessment is of prime importance among patients with Crohn's disease (CD). While small-bowel capsule endoscopy (SBCE) evaluates the extent of mucosal inflammation, intestinal ultrasound (IUS) provides a complementary information with regards to transmural disease involvement. We aimed to examine the correlation between SBCE and IUS, among patients with active CD.

Methods Patients with small-bowel CD, who have been started on biologics, were included. Patients were prospectively followed with fecal calprotectin (FC), SBCE and IUS at baseline and after 14 and 52 weeks. Lewis score (LS), Limberg score (LI) and terminal ileum bowel-wall thickness (TIBWT) were documented. Response to treatment was defined as a 25 %-reduction compared to the baseline measure of FC, LS, LI and TIBWT, while FC < 150µg/mg, LS < 135, LI < 2 and TIBWT < 3 mm, were defined as biochemical, endoscopic and ultrasonographic remission, respectively (Baseline→ week 14/ week 14 →week 52). Baseline correlations were obtained using the Spearman's correlation and Fisher's exact-test was used to assess the correlation between the examined response/remission outcomes.

Results Seventy-one patients were included (median age: 26 (22-43) years, male-49 %). The median time between SBCE and IUS procedures was 3 (0-25) days. Baseline LS was well correlated with both TIBWT (r = 0.6, p < 0.001) and LI (r = 0.6, p < 0.001). Ultrasonographic remission was significantly correlated with both biochemical remission (FC and TIBWT [p = 0.012], FC and LI [p = 0.024]) and endoscopic remission (LS and TIBWT [p = 0.035], LS and LI [0.013]). The correlation between the baseline measures of FC and LS (r = 0.490, p < 0.001) was numerically but not significantly higher than the baseline measures of FC and TIBWT (r = 0.386, p = 0.002) or FC and LI (r = 0.224, p = 0.080) [p = 0.500 and p = 0.110, respectively]. No significant correlation was observed between FC and LS /TIBWT/LI response to treatment (p = 0.347 p = 0.261, p = 0.864, respectively), while there was a trend regarding TIBWT and LS response to treatment correlation (p = 0.052).

Conclusions IUS measures are highly correlated with SBCE LS among patients with active CD, and provide an accurate and reliable assessment of disease activity during follow-up.

Conflicts of interest Bella Ungar received consultation fees from Neopharm,Takeda, Janssen, and AbbVie. Rami Eliakim received consultant and speaker fees from Janssen, AbbVie, Takeda, and Medtronic. Uri Kopylov received speaker fees from AbbVie, Janssen, and Takeda; research support from Takeda and Janssen; and consulting fees from Takeda and CTS. Shomron Ben-Horin has received advisory board and/or consulting fees from AbbVie, Takeda, Janssen,

Celltrion, Pfizer, GSK, Ferring, Novartis, Roche, Gilead, Neopharm, Predicta Med, Galmed, Medial Earlysign, BMS, and Eli Lilly; holds stocks/options in Predicta Med, Evinature, and Galmed; and received research support from AbbVie, Takeda, Janssen, Celltrion, Pfizer, and Galmed. Dan Carter: Consulting fees from Takeda, Abbvie, Taro, and Lapidot; speaker fees and/or research support from Takeda, Abbvie, Janssen, and Lapidot.

EndoHepatology: New insights in vascular approach

26/04/2024, 08:30 – 09:30 **Room 11**

OP132 Exploring the concordance between EUS-guided portal pressure gradient and the hepatic venous pressure gradient measurement. Time for a new gold standard?

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DOI 10.1055/s-0044-1782827

Aims Hepatic venous pressure gradient (HVPG) is considered the current gold standard to estimate the portal pressure gradient. Although the possibility of measuring portal pressure gradient by Endoscopic Ultrasound (GPP-EUS) has been described, it has not been validated against HVPG. To evaluate the concordance of GPP-EUS with the transjugular measurement of GPVH in patients with established or suspected portal hypertension. Secondary objectives: to evaluate the technical success and safety of EUS-PPG.

Methods Prospective double-blind comparative study. Consecutive patients with data of portal hypertension or suspected portal hypertension were enrolled and underwent EUS-PPG measurement with conventional 22G needle and a transjugular HVPG.

Results 34 patients were included. No significant differences were observed in the success rate between EUS-PPG: 31/34 (91.2 %) vs HVPG: 31/33 (93.9 %) (p = 0.6). Thirty patients with successfully EUS-PPG and HVPG measurements were analysed. The correlation between the two techniques was very good, with an intraclass correlation coefficient (ICC) of 0.82. The agreement according to the Bland-Altman plot comparison was good, with only one case (3.33 %) outside 1.96 D.S. Four patients had significant discrepancies (³ 5mmHg between GPVH and GPP-EUS measurement). Only MASLD aetiology versus other aetiologies was significantly associated with the occurrence of significant discrepancies (43 % vs 4 %, p = 0.03). No differences in adverse events were observed between techniques.

Conclusions EUS-PPG using a 22-gauge FNA needle is a reliable and safe technique for measuring the portal pressure gradient in cirrhotic patients. EUS-PGG could become the new gold standard as a direct method that correlates well with GPVH

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP133 Endoscopic ultrasound-guided coil and glue is comparable to radiological angioembolisation for the management of visceral artery pseudoaneurysms: a large multicenter experience

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Aims Visceral artery pseudoaneurysms (PsA) can develop in patients with acute (AP) and chronic pancreatitis (CP) and intervention radiology (IR)-guided intervention is the standard of care. EUS-guided angioembolisation (EUS-A) using coil and cyanoacrylate (CYA) glue injection is a relatively newer modality with limited experience [1, 2]. Comparison between these two modalities is lacking and hence this study was planned.

Methods This study was conducted at two academic tertiary-care centres in India between September 2018-September 2023 and included all consecutive AP/CP patients with visceral artery PsA, who underwent either EUS-guided or IR-guided angioembolisation (IR-A). EUS-A was carried out using coil and CYA injection, while IR-A was performed using varying combinations of coil, glue, thrombin or gelfoam depending on the anatomy and operator preference. The number of coils used depended on the size of the PsA. Baseline characteristics, amount of coil and other agents needed, technical success, obliteration rates, and adverse events were documented.

Results A total of 121 patients (mean age 39.43 ± 12.1 years; 102; 84.3 % males) with 123 PsA were included of which 40 underwent EUS-A and 83 undergoing IR-A. Most common underlying diagnosis was CP (97; 80.2 %), and majority presented with gastrointestinal bleed (85; 69.1 %). Splenic artery was involved in 86 (69.9 %) followed by gastroduodenal artery in 25 (20.3 %).
On comparison, EUS-A had significantly larger PsA (maximum diameter 27.8 ± 17.0 mm vs 15.12 ± 14.4mm; p < 0.001) with similar baseline disease, presentation, hemoglobin levels, and transfusion requirements compared to IR-A. The number of coils used were similar in the two arms while the amount of glue/thrombin used was significantly higher in the EUS-A (2.25 ± 0.8 ml vs. 1.89 ± 0.6 ml; p = 0.026). With similar technical success, the number of sessions required for obliteration were comparable in the two arms (1.15 ± 0.4 vs. 1.10 ± 0.3). Complete obliteration achieved at 72 hrs. (EUS-A – 90.0 % vs. IR-A – 93.8 %) and at 1 month (EUS-A – 97.5 % vs. IR-A – 96.3 %) were similar. On multivariate analysis, the size of the PsA was the key determinant for complete obliteration at 1 month (aOR – 1.10; CI 1.05-1.16; p < 0.0001) even after adjusting for mode of intervention (EUS-A vs IR-A), diagnosis or the artery involved. While adverse events were similar between two arms, the length of hospital stay was longer in the IR-A arm (7.77 ± 4.2 vs. 3.88 ± 2.4 days; p < 0.001).

Conclusions EUS-A using coil with CYA is a feasible and safe modality with performance comparable to IR-A for the management of visceral artery PsA. The size of the PsA rather than the modality of intervention is the key factor determining complete obliteration.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP134 EUS-guided assessment of metabolic liver disease in patients with morbid obesity referred to bariatric surgery

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DOI 10.1055/s-0044-1782829

Aims Patients with morbid obesity have a higher prevalence of metabolic associated- steatotic liver disease (MASLD). Percutaneous liver biopsy has technical drawbacks and non-invasive markers are not accurate in this population. To evaluate the efficacy and safety of EUS-guided bilobar liver biopsy (EUS-guid-

Endoscopy 2024; 56: S1–S503

ed BLB) plus EUS-guided portal pressure gradient measurement (EUS-guided PPGm) in diagnosing MASLD and its correlation with non-invasive test.

Methods Prospective, observational, unicenter study (August 2022-June 2023) in 48 patients referred to bariatric surgery with suspected MASLD by liver ultrasound or fatty liver index (FLI) score > 60. Demographic, anthropometrics, blood test, non-invasive serological markers (FLI, NAFLD, HEPAMET, APRI, FIB-4) and transient elastography (TE) with XL probe variables were evaluated. Final analysis was performed in 33 patients (10 refused, 4 were excluded, 1 technical drawbacks). EUS-guided PPGm was performed with a dedicated 25-gauge needle (EchoTip Insight, Cook Medical), as previouly reported [1, 2] and EUS-guided BLB with a 19-gauge needle with wet-suction technique.

Results The prevalence of MASLD was 69 %, metabolic dysfunction-associated steatohepatitis (MASH) 54.5 %, and fibrosis (F1-F2) 12.6 %.EUS-guided PPGm median was 4 mmHg., 9/33 (28 %) patients had a gradient > 6 mmHg.MASLD patients showed higher levels of fibrosis determined by transient elastography (TE), of steatosis evaluated by coefficient attenuated parametrer (CAP) and portal vein pressure, although they were not statistically significant. No differences were detected in FIB-4, NAFLD and HEPAMET scores according to MASLD. The median of portal spaces was 7.There were observed 2 mild adverse events in 2 patients, one mild abdominal pain and one atrial fibrillation, successfully treated by medical therapy.

Conclusions The prevalence of MASLD and MASH was high in morbid obesity patients.

EUS-guided PPGm and EUS-guided BLB seem safe and accurately evaluate the presence of portal hypertension and the underlying metabolic liver disease.

Conflicts of interest Rafael Romero-Castro has received speaker's fees from Cook Medical

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OP135V Endoscopic Ultrasound (EUS) guided coiling with thrombin injection of partially thrombosed splenic artery pseudoaneurysm

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DOI 10.1055/s-0044-1782830

Abstract Text Aims:Endoscopic ultrasound (EUS)-guided coiling with thrombin injection of partially thrombosed splenic artery pseudoaneurysm(SAP). Methods:57-Y chronic pancreatitis-CECT abdomen 6x4cm partially thrombosed SAP and pseudocyst.EUS-SAP with flow in the patent portion-30x26mm.22G Fine Needle Biopsy (FNB) needle – 14 cm x 10 mm coil injected into SAP followed by 100 IU of thrombin injection.Results:Color doppler reassessment & follow-up imaging-complete occlusion of SAP.Conclusion:Combination of coil + thrombin injection, use of 22G FNB needle and thrombin over glue highlighted as key aspects [1].

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/8e24e900-917b-4ab0-8f72-b4b44d88c6fc/Uploads/13821_ESGE_-%20EUS%20guided%20coiling%20with%20thrombin%20injection%20of%20partially%20....mov

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP136 Head-to-head comparison of endoscopic ultrasound and transjugular portal pressure measurements

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Aims Endoscopic ultrasound (EUS) has emerged as a new tool in assessing portal hypertension (PH). EUS portal pressure gradient (EUS-PPG) was described in few studies using a compact manometer, but the use of a pressure transducer connected to a pressure measurement monitor was previously described in a very small number of patients. The comparative assessment of portal pressure gradient measured by EUS and tranjugular route has not been done before. Our study aimed to compare the values of EUS-PPG and transjugular measurements (hepatic vein pressure gradient – HVPG, PPG) in patients with portal hypertension.

Methods Patients with signs of PH on transabdominal imaging and need for haemodynamic and/or endoscopic assessment were included. Patients with platelet count < 50000/µL and INR > 2.5 were excluded. EUS was performed using a 22 G fine needle aspiration attached to a central venous pressure measurement monitor, and it evaluated the presence of gastrointestinal varices, portal vein (PV) diameter and pressure, median hepatic vein/inferior vena cava pressure. All patients had HVPG measurements through the transjugular approach under fluoroscopic guidance, and portal pressure was assessed in patients scheduled for portosystemic shunt (TIPS). The results obtained by the two methods were statistically analysed

Results We prospectively enrolled (January to November 2023) 19 patients of 50 ± 14 years old, male to female ratio = 2,1:1. The etiology of PH was porto-sinusoidal vascular disease (n = 2, 10 %), Budd-Chiari (n = 1, 5 %), alcohol cirrhosis (n = 15, 75 %), viral cirrhosis (n = 1, 5 %) and metabolic cirrhosis (n = 1, 5). The mean INR was 1.41 and the mean platelet level was 122.000/ µL. EUS-PPG was technically successful in 18 patients (94 %), with one failure attributed to obesity and significant ascites, which limited the needle's deep advancement. The mean EUS-PPG was 13.6 ± 5.48 mmHg. 73 % of patients had oesophageal and/or gastric varices present. The mean PV diameter was 12.7 ± 2.7 mm. HVPG measurements were technically performed in 18 cases (94 %), the one exception was related to anatomical factors impeding hepatic vein catheterisation. Mean HVPG was 14.7 ± 5.26 mmHg and it was similar to EUS-PPG, with strong Pearson correlation coefficient (r = 0.88). In patients scheduled for TIPS (n = 10), mean PPG was 16 ± 4,15 mmHg and it correlated with EUS-PPG (r = 0,81).No difference was observed between the patients performing measurements during TIPS under general anaesthesia and the group assessed under mild sedation with midazolam. No adverse effects were noted. [1–5]

Conclusions The measurements of PH by transjugular route or EUS are comparable. EUS-PPG measurement with 22G needle proved to be an accurate and safe technique. Further investigation is required to determine its indications in patients requiring endoscopic assessment of portal hypertension

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP137 EUS-guided PORtal Vein Sampling for Isolation and characterization of Circulating tumour cells in pancreatic cancer patients (EUPhORIC): a pilot prospective study

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DOI 10.1055/s-0044-1782832

Aims Liquid biopsy in patients with pancreatic ductal adenocarcinoma (PDAC) has been challenged by the limited information obtained from systemic circulation (SC). Circulating Tumour Cells (CTCs) in portal circulation (PC) are deemed to be biologically relevant and potentially carrying prognostic significance, despite mostly been evaluated during surgery.

Methods This prospective, single-centre, interventional study enrolled PDAC patients to assess the feasibility and safety of EUS-guided transgastric and transhepatic Portal Vein sampling (EUS-PVS) for isolating, enumerating, and characterizing CTCs. PC and paired SC samples underwent microfluidic enrichment and dielectrophoretic (DEP) single-cell sorting based on immunostaining for epithelial and mesenchymal biomarkers. Targeted next-generation KRAS sequencing was performed on CTC subpopulations in a subset of patients.

Results Between May 2022 and October 2023, 20 PDAC patients (25 % metastatic) underwent EUS-PVS with 100 % feasibility and safety. CTCs were isolated in all patients from both districts, but the total CTC concentration was significantly higher in PC compared to SC (8.1 [5.8-21.3] vs. 4.1 [2.3-6] / 7.5 ml of blood, p = 0.01), particularly for mesenchymal CTCs. No associations with baseline clinical variables or disease stage were observed. A subset of CTCs exhibited KRAS codon 12 mutations, undetected in paired white blood cells.

Conclusions EUS-PVS is a feasible, safe, and effective method for portal blood sampling, supporting subsequent molecular investigations. Despite more sensitive enrichment modalities enhance the yield of peripheral CTCs evaluation, portal circulation remains more informative, especially for detecting epithelial-to-mesenchymal transition events. DEP single-cell sorting was feasible in all patients, providing libraries of viable cells with specific 100 %-pure phenotypes, potentially suitable for downstream molecular applications.
NCT05247164

Conflicts of interest Authors do not have any conflict of interest to disclose.

Do not miss serrated and proximal lesions!

26/04/2024, 08:30 – 09:30 **Room 10**

OP120 Adenomas per colonoscopy is superior to adenoma detection rate as a quality indicator of colonoscopy

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Aims Adenoma detection rate (ADR) is most widely used as a quality indicator of colonoscopy because of facileness of calculation. Another indicator, adenoma miss rate (AMR) is most critical tool of the quality of colonoscopy, but not easy to calculate routinely. In our study, we assessed to figure out association of AMR with several easy-calculatable quality indicators of not only ADR but also adenomas per colonoscopy (APC), adenomas per positive participant (APP) and ADR-plus.

Methods Four indicators (ADR, ADR-plus, APC, and APP) and two gold standard indicators (AMR and AMR_5mm) were analyzed from colonoscopies performed between 2011 and 2019 in Korea University Ansan Hospital. To derive AMR, we compared two different colonoscopies from same patient, of which interval was 36 months or less. AMR in this study was defined as “the number of adenomas detected in the second colonoscopy per the number of all adenomas detected in the first and second colonoscopy” and AMR_5mm was derived with adenomas only with size of 5mm or larger. If there were more than 10 adenomas detected in the first examination, those cases were excluded. Cases of patient with age under 40 were also excluded. And colonoscopies from endoscopies who performed less than total 50 examinations were not included.

Results Total 682 colonoscopy cases were analyzed retrospectively. Mean age was 58.9 and male was 440(65 %). Mean time interval between exams was 22.0 months. AMR for each endoscopist was ranged from 0.24 to 0.52 (mean 0.37) and AMR_5mm was from 0.23 to 0.57 (mean 0.35). ADR and APP were not significantly correlated with AMR (ADR, r = -0.493, p = 0.177; APP, r = 0.167, p = 0.688) or AMR_5mm (ADR, r = -0.493, p = 0.177; APP = -0.478, p = 0.193). However, APC and ADR-plus exhibited a strong negative correlation with AMR_5mm (APC, r = -0.770, p = 0.015; ADR-plus, r = -0.713, p = 0.031).

Conclusions APC had a significant negative association with AMR_5mm, in contrast to ADR that showed no correlation with AMR or AMR_5mm. The result means APC might be a better quality indicator than ADR for a meticulous endoscopist.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP121 Unraveling the mistery of sessile serrated lesions with dysplasia

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DOI 10.1055/s-0044-1782834

Aims A part of sessile serrated lesions (SSL) progress to colorectal cancer via a new molecular carcinogenesis pathway. Despite discovering the molecular features, clinical and endoscopical features of SSLs with dysplasia remain unknown.
Aim of the study was to assess the characteristics of SSLs with dysplasia compared with those of SSLs without dysplasia.

Methods The retrospective study included 125 SSLs endoscopically resected from 110 patients between January 2017 and December 2022.

Results SSL with dysplasia were 33 and SSL without dysplasia were 92. Out of 33 SSLs with dysplasia, 21 were with low-grade dysplasia and 12 were with high-grade dysplasia. Clinical features: SSLs with dysplasia were significantly associated with male gender, age > 50 years, additional adenomas; interestingly, metabolic diseases did not correlate significantly. Endoscopical features: SSLs with dysplasia were significantly associated with distal colon location, size > 20 mm, polypoid morphology, no mucus cap, and NICE type 2/3. The multivariate regression analysis showed that additional adenomas (OR 2.98, p = 0.04), size > 20 mm (OR 1.18, p = 0.01), distal colon location (OR 2.5, p = 0.03), Nice type 2/3 (OR 4.55, p = 0.001) were significantly associated with SSLs with dysplasia.

Conclusions Dysplastic SSLs are more common in the distal colon, have larger sizes, are Nice type 2/3, and are associated with high-risk adenomas. These findings contribute to the knowledge of SSLs.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP122 Distinguishing the Endoscopic Characteristics of Sessile Serrated Lesions and Microvesicular Hyperplastic Polyps from Goblet Cell-Rich Hyperplastic Polyps

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Aims Among colorectal serrated polyps (SPs), sessile serrated lesions (SSLs) and hyperplastic polyps (HPs) show a similar endoscopic appearance on endoscopy [1]. However, the endoscopic distinctions between the two categories, microvesicular HP (MVHP) and goblet cell-rich HP (GCHP) are not well understood. Therefore, we compared the endoscopic features of SSL, MVHP, and GCHP.

Methods This retrospective, cross-sectional study was conducted at the Toyoshima Endoscopy Clinic. We examined the polyp size, location, Paris classification type, mucus cap, indistinct border, expanded crypt opening, varicose microvascular vessels, and Japan NBI expert team (JNET) classification type. Multivariable analysis of each endoscopic finding using a binomial logistic regression model determined the factors that predicted SP histology.

Results A total of 670 SPs were enrolled in this study, comprising 159 SSLs, 361 MVHPs, and 150 GCHPs. Mean polyp size was 6.42 mm. SPs located in the proximal colon accounted for 70.3 %. On comparing the SSL + MVHP group and GCHP, a mucus cap (partial regression coefficient 1.705, 95 % confidence interval [CI] 1.141-2.269), expanded crypt opening (1.828, 1.159-2.496), and varicose microvascular vessels (1.270, 0.590-1.949) were more often observed in SSL + MVHP group compared with GCHP. Mucus cap, expanded crypt opening, and varicose microvascular vessels were each assigned 1 point and the sum of the points was defined as endoscopic SP score. Of the endoscopic SP score, the area under the receiver operating characteristic curve (AUC) was 0.83 (95 % CI 0.81-0.86) and the optimal cut-off value was 1; the sensitivity, specificity, and positive predictive value were 81.5 %, 74.7 %, 91.8 %, respectively. In the comparison between MVHP and GCHP, a mucus cap (1.564, 0.988–2.139), expanded crypt opening (1.802, 1.127-2.477), and varicose microvascular vessels (1.288, 0.596-1.980) were more often found in MVHP in contrast to GCHP. The AUC of the endoscopic SP score was 0.80 (95 % CI 0.76-0.83) and the optimal cut-off value was 1; the sensitivity, specificity, and PPV were 76.7 %, 74.7 %, and 87.9 %, respectively. When comparing SSL and MVHP, SSLs were more likely to be in the proximal colon (0.662, 0.087-1.237) and were larger (0.198, 0.134-0.262) than MVHPs. No significant differences were observed in other endoscopic findings.

Conclusions SSL and MVHP had distinct endoscopic appearances including mucus cap, expanded crypt opening, and varicose microvascular vessels, compared to GCHP. There were no differences in endoscopic findings between SSL and MVHP, other than their location and size. Thus, interestingly, MVHP and GCHP, while belonging to the same HP category, displayed different endoscopic appearances. Conversely, SSL and MVHP despite belonging to different histopathological categories, demonstrated striking endoscopic similarities. Treating MVHP and GCHP as distinct entities may facilitate the endoscopic diagnosis of SPs.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP123 Effect of cecal intubation rate on adenoma and serrated polyp detection and the impact on post colonoscopy colorectal cancer deaths

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Aims The visualization of the whole colonic mucosa due to complete colonoscopy with caecal intubation has been accepted as a quality parameter for screening colonoscopy. However, there is little evidence of the caecal intubation rate and its association with long-term patient outcome.

Methods We did a linkage of individuals that participated in the Austrian Quality Assurance Program to the Austrian death registry to obtain information on deaths of post-colonoscopy colorectal cancer. We performed logistic regression to estimate the association of baseline characteristics with caecal intubation as well as the caecal intubation rate with the probability to detect adenomas or proximal serrated polyps.

Results 381460 screening participants between 01/2010 and 12/2022 were included in this analysis. We found that for with every one percentage point increase in the CIR, the probability to detect an adenoma increased by five percentage points (OR 1.05, 95 % CI 1.052 – 1.0576, p < 0.001) and every one percentage point increase of the CIR lead to an eight percentage point increase in the probability to detect a proximal serrated polyp (OR 1.08, 95 % CI 1.0694 – 1.0873, p < 0.001, table 3). There was a significantly lower risk for PCCRC death when endoscopists had a CIR of 95 %-100 % (HR 0.54, 95 % CI 0.39 – 0.73, p < 0.001), however, we found no significant difference in PCCRC mortality when endoscopists had a CIR < 90 % or 90 % – 95 %.

Conclusions the endoscopist's cecal intubation rate is associated with their ability to detect adenomas and proximal serrated polyps. There is no difference in the hazards for PCCRC death between a CIR of 90 %-95 % and < 90 %, a CIR above 95 % might be the most appropriate cutoff.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP124 Impact of linked color imaging on proximal adenoma miss rate: a multicenter tandem randomized controlled trial

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Aims Missed lesions are common during standard colonoscopy and are correlated with post-colonoscopy colorectal cancer (PCCRC). Contrast enhanced technologies have recently been developed to improve polyp detection. The

aim of this study was to evaluate the impact of linked color imaging (LCI) system on the proximal adenoma miss rate (pAMR) in routine colonoscopy.

Methods This national multicentric tandem randomized trial compared of the outcomes of standard colonoscopy with white light imaging (WLI) to colonoscopy with LCI (Fujifilm), for polyp detection in the right colon. Two consecutive examinations of the right colon (upstream the hepatic flexure) were made with WLI and LCI by the same operator. First pass inspection by WLI or LCI were randomized 1:1 (WLI–first group vs LCI–first group) after cecal intubation. According to statistical calculations, 10 endoscopy units had to include approximately 700 patients with a 1:1 randomization. The primary outcome was the pAMR. Secondary outcomes were proximal sessile serrated lesion miss rate (pSSLMR), proximal advanced AMR (pAdvAMR), and proximal polyp miss rate (PMR).

Results A total of 764 patients were included from January 1, 2020 to December 22, 2022. 686 patients were randomized (345 for WLI-first group vs. 341 for LCI-first). Both groups were comparable in terms of demographics and indications.

pAMR was not significantly higher in the WLI-first group than in the LCI-first group: 36.7 % vs 31.8 %, respectively (estimated mean absolute difference: 4.9 % [-5.2 %; 15.0 %], $P = 0.340$).

pSSLMR was not significantly higher in the WLI-first group than in the LCI-first group: 33.9 % vs 22.0 %, respectively (estimated mean absolute difference: 11.9 % [-4.4 % ; 28.2 %], $P = 0.155$).

pAdvAMR was not significantly higher in the WLI-first group than in the LCI-first group: 20.8 % vs 29.4 %, respectively (estimated mean absolute difference: 8.6 % [-18.5; 35.7], $P = 0.529$).

pPMR was not significantly higher in the WLI-first group than in the LCI-first group: 36.7 % vs 28.4 % in the LCI-first group, respêctively (estimated mean absolute difference: 8.3 % [-0.20 %; 16.8], $P = 0.056$).

Conclusions This large national multicenter randomized study does not support the benefits of LCI regarding pAMR in routine colonoscopy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP125 Reasons for incomplete colonoscopies during screening colonoscopy

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Aims Screening colonoscopy is effective in preventing colorectal cancer by removing precancerous lesions. Incomplete examinations are associated with a higher risk of post-colonoscopy colorectal cancer. Therefore, the minimum standard for cecal intubation rate is > 90 %, and the target standard > 95 %. However, little is known about the distribution of reasons for incomplete colonoscopy in colorectal cancer screening programs.

Methods Based on data from the Austrian quality assurance program for screening colonoscopy, we analyzed the reasons for incomplete colonoscopies. We further investigated whether the use of sedation and the adenoma detection rate (ADR) are associated with lower rates of complete examination.

Results 489,800 screening colonoscopies were analyzed within the Austrian quality assurance program. Of these, 2.9 % (n = 14,325) were incomplete. 59,7 % of those patients were female and 40.3 % male. 85.4 % of patients with an incomplete vs. 91.2 % with a complete examination were sedated (p < 0.001). The reasons for not reaching the cecum were insufficient bowel preparation in 23.3 % (n = 3335), pain in 23 % (n = 3291), stenosis in 11.7 % (n = 1674), complications in 1.6 % (n = 227), and other factors in 40.5 % (n = 5798). 69 % of incomplete colonoscopies were performed by endoscopists with an ADR lower than 25 % and 31 % with an ADR over 25 %. 54.6 % of complete examinations were done by endoscopists with an ADR lower than 25 % and 45.4 % with an ADR over 25 % (p < 0.001).

Conclusions The target standard of the cecal intubation rate has been achieved (97.1 %). Incomplete colonoscopies were more often in female (84.4 %) compared to male (40.3 %), performed in unsedated patients and by endoscopists with an ADR < 25 %. The most common reason for not reaching the cecum was categorized as other factors (40.5 %), this category is not well defined and requires further investigation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Navigating Upper GI ESD: From biopsy to scar

26/04/2024, 10:00 – 11:00 **Room 8**

OP144 Poor agreement between biopsies and Endoscopic Submucosal Dissection (ESD) specimens on upper GI lesions: results from the Spanish registry

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DOI 10.1055/s-0044-1782839

Aims ESD allows the en-bloc resection of upper GI lesions and can be curative. The objective was to assess the agreement between the biopsy specimens obtained during the diagnostic upper endoscopy and the ESD specimen for epithelial upper GI lesions in a Western country.

Methods Prospective multicenter cohort study with the data from the Spanish national registry (in RedCap). The demographic and clinical characteristics of the patients and lesions were prospectively collected. Morphological features of the tumors and technical factors were recorded. Prognostic factors for disagreement between biopsies and ESD were assessed using t-student and Chi-square.

Results 411 upper GI ESD were performed (109 esophageal and 302 gastric) with previous biopsy with endoscopic forceps. The recruitment was done in 18 centers from January 2016 to June 2023. The mean lesion size was 44 + 18.6 mm (10-105). En-bloc resection was achieved in 391 cases (95 %). In 189 (46 %) cases there was a disagreement: the biopsy specimen underestimated and overestimated the final assessment in 156 (82.5 %) and in 33 (17.5 %) cases, respectively. In 46/67 cases (68.6 %) in which the ESD was not curative and required surgery, biopsies with endoscopic forceps underestimated the final result. Location in the esophagus (54 % vs 43 %;p = 0.047) and size (28 + 18,6 mm vs 23,5 + 14,4 mm; p = 0.034) were predictors of disagreement.

Conclusions The preoperative biopsy specimens obtained during diagnostic upper endoscopy are not accurate in about half of cases and often underestimate the definitive histology. ESD has to be considered the diagnostic method since allows an accurate diagnosis, can be curative and may help to select patients requiring additional therapies. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP145 Gastric endoscopic submucosal dissection: can we trust the initial forceps biopsy?

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DOI 10.1055/s-0044-1782840

Aims Evaluate factors associated with upstaging and downstaging pathological results in gastric endoscopic submucosal dissection (ESD) specimens.

Methods Retrospective, cohort study including patients who underwent gastric ESD after an initial esophagogastroduodenoscopy (EGD) with the diagnosis of a gastric lesion harbouring dysplasia or adenocarcinoma, confirmed by forceps biopsy.

Results A total of 215 patients were included, the majority were male (66.0 %), with a mean age of 68 ± 8 years. One fifth of patients had a first-degree family history of gastric cancer. The initial forceps biopsy results were low grade dysplasia (LGD) in 157 patients (73.0 %), high grade dysplasia (HGD) in 45 (20.9 %) and adenocarcinoma in 13 patients (6.1 %). The median time interval between the initial diagnostic EGD and the ESD procedure was 79 days. The ESD specimen histology results were LGD in 110 patients (51.2 %), HGD in 65 (30.2 %) and adenocarcinoma in 40 patients (18.6 %).

A total of 70 patients had an upstaging ESD pathological result (32.6 %). Fifty-two patients with LGD in the initial forceps biopsy had pathological upstaging (43 to HGD and 9 patients to adenocarcinoma). Additionally, 18 patients with HGD in initial forceps biopsy had adenocarcinoma in the ESD specimen. Patients with an upstaging ESD pathological result had a significantly larger lesion size (18 *vs* 15 mm, $p = 0.002$), and those with an ulcerated lesion were 4 times more likely to have an upstaging ESD pathological result ($p = 0.042$). The presence of a sessile component (Paris 0-Is or Paris IIa + Is) was not associated with an upstaging ESD pathological result ($p = 0.258$). The use of white-light endoscopy *vs* chromoendoscopy was not associated with an upstaging ESD pathological result ($p = 0.682$), as well as the median time interval between the initial diagnostic EGD and the ESD procedure ($p = 0.594$). A total of 5 patients had a downstaging ESD pathological result (2.3 %), with these patients having HGD in the initial forceps biopsy and LGD in the ESD specimen. Patients with a downstaging ESD pathological result had a significantly younger age (61 ± 8 *vs* 69 ± 8 years, $p = 0.026$), and those with active smoking were 9 times more likely to have a downstaging ESD pathological result ($p = 0.024$). Alcohol consumption and *Helicobacter pylori* infection were not associated with a downstaging ESD pathological result ($p = 0.597$ and $p = 0.306$, respectively), as well as being medicated with proton-pump inhibitors ($p = 0.652$).

Conclusions The diagnostic discrepancy rate between the initial forceps biopsy and the ESD specimen histologic results was 34.9 %. Patients with larger lesions or ulcerated lesions are more likely to have an upstaging ESD pathological result, and those with younger age or active smoking were more likely to have a downstaging ESD pathological result.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP146 ESD for the treatment of early gastric cancer in the elderly: overall survival, safety, and technical success

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DOI 10.1055/s-0044-1782841

Aims Early gastric cancer (EGC) is increasingly common in elderly patients [1]. This study aimed to determine the **overall survival (OS) in elderly patients with EGC (aged ≥ 80 years) undergoing ESD and compare it with the previous decade's cohort (aged 70-79 years).** Additionally, technical success and safety were analyzed.

Methods Prospective, multicenter, cohort study of all EGC treated by ESD in patients over 70 years across 26 hospitals in Spain from January 2016 to December 2022. OS was calculated using Kaplan-Meier analysis. Results were compared using log-rank test. Cox regression was used for multivariate analysis. Univariate analysis was performed using Student's t-test or Mann-Whitney test and Chi-square test or Fisher's exact.

Results 217 patients were included, 135 (62.2 %) aged 70-79 years (group A) and 82 (37.8 %) aged ≥ 80 years (group B). Patients in group B had more comorbidities, reflected in a higher anesthesic risk by the ASA-PS Classification System III or higher of 46.7 % vs 73.2 % ($p < 0.001$), and higher use of anticoagulation therapy: 17.3 % vs 39.5 % ($p < 0.001$). There were no differences in technical success, R0 rates were 75.8 % and 78.5 % ($p = 0.65$) and curative rates were 71.8 % and 67.9 % ($p = 0.560$), respectively. No differences were found in intraprocedural complications, but there was a higher rate of delayed bleeding in group B (8.2 % vs 22.8 %, $p = 0.003$). Indications for surgery after ESD were: i) ESD complications: 1 patient in group B (1.2 %) ($p = 0.416$), ii) aborted ESD: 3 in group A (2.2 %) and 2 in group B (2.4 %) ($p = 1$), iii) non-curative ESD: 23 in group A (17 %) and 15 in group B (18.3 %) ($p = 0.788$). No deaths were reported during the procedure. Two patients (0.92 %) died in the 30 days following ESD, both in group B ($p = 0.14$). 139 patients (64 %) were followed-up and 22 (15.6 %) died during that time (none of these deaths was related to gastric cancer). The 3-year survival rate in group A was 90 % and 5-year survival rate was 78 %; **in group B the 3-year survival rate was 64 % and 5-year survival rate was 28 % (median survival in group B: 58 months, CI 95 % 29.51-87.52) ($p < 0.001$).** Most deaths (91 %) occurred in patients with comorbidities (identified as an ASA PS ≥ III), 6 (27.3 %) in group A and 14 (63.6 %) in group B ($p = 0.007$). **Multivariate analysis showed that independent risk factors for lower OS were age ≥ 80 years (HR 2.91; 95 % IC, 1.20-7.05; p = 0.018) and ASA PS ≥ III (HR 6.28; 95 % IC, 1.43-27.53; p = 0.015).**

Conclusions ESD is a safe and feasible procedure in elderly patients with EGC in a Western context [2–7]. Knowing that EGC may progress to advanced disease and death in 4-5 years without treatment [8], **the presence and severity of comorbidities may guide the decision on whether to perform ESD**.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP147 Feasibility of Mucosal Defect Closure Using Clip with Line Pulley Securing (CLiPS) Technique after Gastric Endoscopic Submucosal Dissection

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Aims In recent years, there have been scattered reports on mucosal defect closure aimed at preventing serious complications such as delayed bleeding and perforation in gastric ESD. However, there is currently no established technique. To address these issues, we developed the Clip with Line Pulley Securing (CLiPS) technique, a simple and cost-effective closure method using widely available materials.

Methods A prospective study was conducted on 34 consecutive patients who underwent gastric ESD at our hospital between October and November 2023. In the CLiPS technique, a reopenable clip (SureClip, Microtec) with a 3-0 nylon thread (Bearon, Bearmedic) to the tip of is placed at the distal margin of the mucosal defect. A second clip is used to secure the same nylon thread to the opposite end. The nylon thread from the forceps hole is passed through the small open detachable snare (Endoloop, Olympus). While applying moderate tension to the nylon thread, the detachable snare is pushed in as both a pusher and stopper. Subsequently, the detachable snare is released, bringing the edges of the mucosal defect together. A loop cutter is then employed to cut the detachable snare and nylon thread, followed by complete closure using standard clips.Multiple CLiPS can be performed if the ulcer is large.

Results The success rate of CLiPS technique was 100 % (34/34), and the complete closure rate was 100 % (34/34). The median size of resected specimen was 27.5 mm (range 17-53 mm), and the median closure time was 15 minutes (range 10-26 minutes). The median number of clips used was 9 (range 5-15), and the medium number of detachable snares used was 1 (range 1-2). The sustained complete closure rate on POD2 was 87.9 % (29/33), except for one case in which the endoscopy was not performed because the patient developed heart failure. No procedure-associated complications occurred. The delayed bleeding and perforation rate after ESD was 0 % (34/34) and no complications related to CLiPS technique were observed.

Conclusions CLiPS technique was feasible in all cases, and there were no procedure-related or delayed complications in any of the cases. Prospective validation of its usefulness in multiple organs is planned in the future.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP148 Efficacy of gel immersion endoscopic submucosal dissection for superficial non-ampullary duodenal epithelial tumors

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DOI 10.1055/s-0044-1782843

Aims Endoscopic submucosal dissection (ESD) for superficial non-ampullary duodenal epithelial tumors (SNADETs) larger than 20 mm has not been common due to the difficulty of the procedure and its related complications. Considering the simplicity and safety of the procedure, we have introduced gel immersion ESD (GI-ESD) in 2021 using a Clutch Cutter as a resection device. This retrospective study aims to compare the short-term outcomes between GI-ESD and the conventional ESD for SNADETs.

Methods We enrolled consecutive patients with SNADETs from April 2015 to April 2022. ESD using a Clutch Cutter and post-resection ulcer suture was attempted in all cases in this study period. From June 2022 to October 2023, 113 cases with 116 lesions underwent conventional ESD with CO2 insufflation (C-ESD) and 45 cases with 51 lesions underwent GI-ESD using VISCOCLEAR (Otsuka Pharmaceutical Factory, Inc., Tokushima, Japan). We compare the short-term outcomes of ESD between the two methods.We enrolled consecutive patients with SNADETs from April 2015 to April 2022. ESD using a Clutch Cutter and post-resection ulcer suture was attempted in all cases in this study period. From June 2022 to October 2023, 113 cases with 116 lesions underwent conventional ESD with CO2 insufflation (C-ESD) and 45 cases with 51 lesions underwent GI-ESD using VISCOCLEAR (Otsuka Pharmaceutical Factory, Inc., Tokushima, Japan). We compare the short-term outcomes of ESD between the two methods.

Results A total of 161 patients with 167 lesions including 113 and 51 patients in the C-ESD and GI-ESD, respectively, were investigated in this study. In the C-ESD and GI-ESD, tumor location (1st part/ 2nd part/ 3rd part) was 25/85/6 and 14/32/5, mean tumor diameter was 23.5 and 26.9mm, and pathological feature (adenoma/pTis or T1a/pT1b) was 1/110/5 and 0/51/0, respectively, with no significant difference. The mean resection time was 58.8 and 61.3 min, complete resection rate was 95.7 and 92.2 % in the C-ESD and GI-ESD, respectively; both groups had good resection results. The complete suture rate was C-ESD: GI-ESD = 99.1:100 %, and the mean suture time was C-ESD: GI-ESD = 20.7:23.3 min, with no significant difference between the two groups. Regarding perioperative adverse events, the intraoperative perforation rate was not a significant difference (0 vs. 0.8 %), but the muscle layer exposure rate in the GI-ESD was significantly lower than that in the C-ESD (5.9 vs.19,1 %, p = 0.034). Regarding delayed adverse events, the delayed perforation rate was 3.5 and 0 %, and GI-ESD tended to cause fewer delayed perforations, but not a significant difference.

Conclusions GI-ESD improves endoscopic maneuverability by providing a good field of view, elevating the lesion with buoyancy, and reducing extension of the duodenal wall. In addition, gel immersion around the device is expected to reduce damage to the muscle layer caused by electrical discharge, suggesting that safer ESD is possible.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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Is EUS the new standard of care for the management of gastric outlet obstruction?

26/04/2024, 10:00 – 11:00 **Room 10**

OP149 EUS-guided gastroenterostomy versus enteral stenting for malignant gastric outlet obstruction: a propensity score-matched study

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DOI 10.1055/s-0044-1782844

Aims Endoscopic ultrasound-guided gastroenterostomy (EUS-GE) is a minimally invasive option of treatment for malignant gastric outlet obstruction (mGOO), emerging as alternative to enteral stenting (ES) and surgery. We aimed to compare the stent dysfunction rate, patency, and clinical outcome of EUS-GE with a propensity matched cohort of ES.

Methods Patients who underwent EUS-GE or ES for mGOO between June 2017 and June 2023 at two Italian centers were retrospectively evaluated. The primary outcome was stent dysfunction (need for reintervention for GOO scoring system [GOOSS] ≤ 1 after initial clinical success). Secondary outcomes included early clinical failure (GOOSS of 2 was not reached within one week) and safety. A propensity score matching (1:1) analysis was performed using age, sex, performance status (PS ECOG), ascites and biliary obstruction as variables

Results 198 patients were collected, including 66 EUS-GE and 132 ES. Overall, the reintervention rate was 3 % in EUS-GE and 17.9 % in ES group (p = 0.004). On multivariate analysis, in addition to the type of treatment (p = 0.005; OR 8.549 [CI 95 % 1.882-38.822]), the stenosis located in the third duodenum (p = 0.009; OR 3.493 [CI 95 % 1.352-9.022]) was an independent factor associated with reintervention. Although more common in the ES group (20 % vs 3 %; p = 0.004), early clinical failure was independently influenced only by PS ECOG ≥ 2 (p 0.034; OR 2.873 [CI 95 % 1.081-7.633]). Propensity analysis allocated 45 patients per group. The technical success rate was 100 %. Stent dysfunction occurred in 4.4 % (n = 2) after EUS-GE vs. 20 % (n = 9) after ES (p = 0.022), in whom a median time to stent dysfunction of 21 days (IQR 8.5-153) was calculated. Kaplan–Meier analyses confirmed a higher stent dysfunction-free survival rate after EUS-GE compared to ES (log-rank test p = 0.05). No significant differences were found comparing early clinical failure (4.4 % vs 13.3 %) and safety (0 vs 8.8 %) in EUS-GE vs ES group respectively. A significantly shorter duration of hospital stay was found in the EUS-GE group (7.49 ± 4.89 vs 12.49 ± 12.96; p = 0.018). Median survival after EUS-GE was 75 days (30–186.5) vs 108 days (IQR 49–300) after ES.

Conclusions In this propensity score-matched study, compared with ES, EUS-GE had similar early clinical success and safety with a lower stent dysfunction rate and shorter hospitalization time. PS ECOG seems to be independently associated with early clinical success. A tailored approach based on patient condition and prognosis should be considered in the endoscopic treatment of malignant GOO.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP150 What is the best ultrasound-guided biliary drainage strategy is case of gastric outlet obstruction? A multicenter retrospective study

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DOI 10.1055/s-0044-1782845

Aims Concomitant biliary obstruction and gastric outlet obstruction (GOO) is a common situation in pancreatobiliary and gastroduodenal neoplasia. GOO leads to frequent endoscopic retrograde cholangiopancreatography (ERCP) biliary stenting failure. Endoscopic duodenal stenting (EDS) is limited by stent obstruction. Therapeutic endoscopic ultrasonography (EUS) development provide new perspectives, for both biliary obstruction (EUS-guided biliary drainage (EUS-BD)) and GOO (EUS-guided gastroenterostomy (EUS-GE)).
This study aimed to compare the EUS-BD efficiencies in case of GOO in order to find the best therapeutic strategy.

Methods We conducted a french multicenter retrospective study. All patients with a biliary obstruction and a naive or previously treated GOO, who underwent EUS-guided choledochoduodenostomy (EUS-CDS) or hepaticogastrostomy (EUS-HGS) between 2017 and 2023 were eligible for inclusion. End-point was defined by patient's death.
Primary outcome was the rate of biliary stent obstruction requiring a new intervention. Secondary outcomes included technical and clinical success and procedure-related adverse events.

Results 108 patients from 4 centers have been included. The mean age was 72 years (+ /- 11 DS), the mean bilirubinemia was 182 micromol/L (+ /- 140). 70 % suffered from pancreatic cancer. The biliary drainage technical success was 96 % and the clinical success was 86 %. 65 % were treated by EUS-CDS and 35 % by EUS-HGS. 84 % of the patients benefitted from a EDS and 16 % from a EUS-GE to treat the GOO. The median follow up was 90 days but 90 % of the patients died at the end of the follow-up. No difference was observed between EUS-HGS and EUS-CDS in term of technical success and clinical success. The rate of post procedural adverse events was 13 % without significative difference between EUS-HGS and EUS-CDS (11 % vs 14 %, p = 0,7). The rate of stent obstruction during follow-up was 26 % without significative difference between patients treated by EUS-HGS and EUS-CDS (22 % vs 28 %, p = 0.55). There was no difference in term of biliary obstruction during follow-up between patients treated by EDS or EUS-GE (26 % vs 19 % p = 0.5).Using Kaplan meyer analysis, we found a significant difference in term of survival without biliary obstruction during follow up in favour of EUS-HGS (log rank 4.44, p = 0.035).

Conclusions Patients suffering from double stenosis have a poor prognostic. There was no difference in our series in terms of biliary obstruction during follow-up, concerning the biliary drainage routechosen (EUS-HGS or EUS-CDS) or the method of treatment for duodenal stenosis (EDS or EUS-GE). Biliary obstruction occurs significantly later after EUS-HGS.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP151 Direct EUS-guided gastrojejunostomy (EUS-GJ) for the management of gastric outlet obstruction (GOO). Case series from a tertiary hospital

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Aims To perform a descriptive analysis of all the EUS- GJ performed in our center from 2016-2023 and to compare the cases performed by direct puncture of the loop to the ones assisted by nasobiliary catheter to establish possible predictor factors of using the direct technique over the assisted one.

Methods We performed a descriptive analysis of all the EUS-GJ performed in the study period. Then we performed a descriptive analysis of assisted and direct EUS-GJ. A univariate analysis comparing the two techniques and a mul-

tivariate analysis taking into account the variables with p < 0.05 in the univariate analysis was performed.

Results Out of 87 EUS-GJ, technical success was achieved in 89.7 %, with 73 (83.9 %) being malignant stenosis. We had complications in 7 procedures (8 %). Of all these, 7 (8 %) were performed by direct loop puncture. The technical and clinical success rate of direct EUS-GJ was 85.7 % with no complications.

100 % of the strictures were malignant in these cases. In 4 cases (57,1 %) the neoplasm was pancreatic, in 2 (28,6 %) duodenal and in 1 (14,3 %) gastric. The site of the stenosis was distal (beyond the second duodenal portion) in 6 cases (57,1 %) and 42,9 % of the cases had tumor necrosis. In the univariate analysis, it was observed that there were satistically significant differences (p < 0,05) in the distal location of the stenosis, tumor necrosis and duodenal tumor in direct EUS-GJ compared to the assisted cases. There was also a tendency to a higher use of 15 x 10 mm luminal apposing metal stents compared to the assisted technique (p = 0,08).

In the multivariate analysis, necrosis, distal location and duodenal tumor maintained statistical significance (p < 0,05).

Conclusions Direct EUS-GJ is a safe technique, with high technical and clinical success rates, most frequently used when there is a distal stenosis, tumor necrosis and the tumor is duodenal. However, this is a single-center study with a small series of cases, so we need more studies to validate these results.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP152 EUS-Choledochoduodenostomy versus Hepaticogastrostomy combined with EUS-Gastroenterostomy in malignant double obstruction (CABRIOLET_Pro): a prospective comparative study

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Aims Combined Biliary (BO) and Gastric Outlet Obstruction (GOO) represent a challenging clinical scenario. Previous retrospective experiences have demonstrated higher risk of Dysfunction-Free survival (DFS) of EUS-guided Choledochoduodenostomy (EUS-CDS) versus EUS-Hepaticogastrostomy (EUS-HGS) in this scenario, but no prospective evidence is available.

Methods All consecutive patients treated for double obstruction between 2021-2023 were eligible for inclusion upon receiving EUS-guided Gastroenterostomy (EUS-GE) for GOO and either EUS-CDS or EUS-HGS for BO according to endoscopist preference. DFS prospective surveillance started from the day the 2 procedures coexisted. Efficacy and safety were evaluated, with biliary dysfunctions as primary outcome and DFS using Kaplan-Meier estimates (with log-rank test) as primary measure.

Results Twenty patients (75 % with pancreatic cancer, 50 % with metastatic disease) with EUS-GE were included (7 EUS-CDS and 13 EUS-HGS). No significant difference was detected at baseline. Technical success was 100 % in both groups. EUS-CDS versus EUS-HGS showed similar clinical success (100 % vs. 92.3 %, p = 0.5), a higher rate of post-procedural adverse events (42.9 % vs. 7.7 %, p = 0.067, mostly related to severe/fatal cholangitis in the EUS-CDS group) and a higher rate of biliary dysfunctions during follow-up (57.1 % vs. 16.7 %, p = 0.074).

DFS was significantly shorter in the EUS-CDS group (39 [12-66] vs. 267 [192-344] days, p = 0.0043), with a 30-days probability of DFS of 53.6 % vs. 100 %, HR = 7.4 [1.1-52.3].

Conclusions In this prospective comparison of patients with malignant double obstruction undergoing EUS-GE, treating jaundice with EUS-CDS versus EUS-HGS resulted in reduced probability of survival without biliary events, with detection of severe/fatal cholangitis.

NCT04813055

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP153 EUS-guided gastroenterostomy for gastric outet obstruction with a LAMS: Prospective multicenter standardization of the parallel enteral catheter method

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DOI 10.1055/s-0044-1782848

Aims Several EUS-GE techniques are available. Fluid instillation into the small bowel using a nasobiliary drain as a parallel enteral catheter (PEC) during transgastric LAMS insertion under EUS is simple but not yet standardized. We aimed at standardizing the PEC method for EUS-GE.

Methods Prospective IRB-approved multicenter study including consecutive consenting patients with unresectable malignant GOO undergoing primary EUS-GE between August 2019-November 2020. The PEC method involves 4 steps predefined as essential: 1) Over-the-wire, through-the-scope 7-8.5F nasobiliary drain placement distal to the stricture; 2) Over-the-catheter endoscope exchange with parallel echoendoscope gastric intubation; 3) Small bowel distention via PEC fluid instillation and targeting under EUS with fluoroscopy; 4) free-hand cautery-enhanced LAMS placement. Variables related to essential steps included procedure time, injected fluid volume and targeted small bowel diameter. Variations in non-essential steps were recorded and the dominant strategy defined. Adverse events (AE) were graded per ASGE. Clinical success defined as GOO Scoring System ≥ 2 at 30 days.

Results Six endoscopists performed EUS-GE in 38 patients: 53 % male; median (IQR) age 77.3 (65.3-84.4) years. Overall technical success was achieved in 37 (97.4 %) with a median (IQR) procedure duration of 24 (17.5-37.1)-minutes. The failed case resulted from small bowel misidentification and subsequent gastro-colostomy requiring endoscopic LAMS removal and clip-closure one week later (moderately severe AE). Stepwise technical success was obtained in all 4 essential steps of the PEC method by all operators in all patients, except step 3 in the failed case (99.3 % stepwise technical success). Median (IQR) instilled fluid volume was 350 (200-460)-ml and median (IQR) targeted small bowel diameter was 27 (21-30)-mm.

Conclusions When prospectively assessed, the PEC method for EUS-GE was consistently reproducible across operators with varying levels of experience and associated with high technical success rates and relatively short procedure times.

Conflicts of interest Manuel Perez-Miranda is a Consultant and speaker for Boston Scientific, Olympus, and M.I.Tech.

OP154 Combined biliary obstruction and gastric outlet obstruction (GOO) management: comparison of various strategies of biliary stenting and duodenal derivation in terms of reintervention risk: expert single center experience

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DOI 10.1055/s-0044-1782849

Aims Combined biliary obstruction and gastric outlet obstruction (GOO) is a therapeutic challenge in endoscopy, especially due to the risk of biliary obstruc-

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tion after drainage, hindering the continuation of chemotherapy in fragile patients. Moreover, the development of EUS-guided biliary drainage and gastroenterostomies multiplied the therapeutic strategies. Only one study to date suggested that EUS-choledocoduodenostomy has the higher risk of stent obstruction. We evaluated different strategies for therapeutic EUS compared to ERCP in an expert center mastering all these techniques.

Methods This was a retrospective mono center observational study. All patients with tumor requiring both biliary drainage and GOO management were included for analysis. Biliary drainage could be transpapillary stenting (TPS), EUS-hepaticogastrostomy (EUSHG) and EUS-choledocoduodenostomy (EUS-CD). GOO could be treated by duodenal stenting (DS) or EUS-gastroenterostomy (EUSGEA).

The primary objective was to assess and compare the biliary reintervention rate depending on the initial strategy. The secondary objectives were to describe the therapeutic strategies, the adverse events and the factors influencing recurrence.

Results Thirty-three patients were included in this study with 51.5 % of women and mean age of 71.7 ± 13.9 years old. The etiologies of tumors were essentially pancreatic adenocarcinoma (57.8 %), followed by cholangiocarcinoma (15 %), ampuloma (12 %) and duodenal carcinoma (9 %). The first treatment concerned biliary obstruction in 67.7 %, duodenal occlusion in 24.2 %, and both in 2 cases. The therapeutic sequencies applied were by order TPS + DS, DS + EUSHG, EUSGEA + EUSHG, TSP + EUSGEA, EUSCD + DS, EUSHG + DS, EUSCD + EUSGEA, DS + EUSCD in 45.5 %, 12.1 %, 12.1 %, 9.1 %, 9.1 %, 6.1 %, 3 %, 3 % of cases, respectively. ERCP with TPS was proposed in 54.5 % (n = 18) in first intention.

The biliary drainage was clinically successful in all the cases, but with 51.5 % biliary reinterventions within a follow-up of 9.3 months. The adverse event rate was 15 % for biliary drainage (2 complications grade III in AGREE classification), and 6 % for GOO derivation (one grade III during EUSGEA).

When comparing TPS as first approach over all other approaches, the biliary reintervention rate was significantly higher: 77.8 % against 20 % ($p < 0.001$). A subsequent reintervention was more frequently necessary in 27 % versus 0 % ($p < 0.005$).

When comparing depending on the bilirubin level (cut-off 150 µmol/L), the stent dysfunction rates were 25 % against 64 % ($p = 0.06$).

Conclusions In conclusion, this study strongly suggests that, even in the absence of evidence of duodenal stenosis at the time of initial biliary drainage, starting with ERCP and TPS increased the risk of reintervention and maybe EUS drainage may be preferable and is safe. Large sample size is required to determine which strategy is better.

Conflicts of interest Pr Gonzalez and Pr Barthet: Consultants for Boscotn scientific, Pentax and Fujifilm

Predicting risk and quality of life

26/04/2024, 10:00 – 11:00 **Room 11**

OP138 Different modifiable risk factors for the development of non-advanced adenoma, advanced adenomatous lesion, and sessile serrated lesions, on screening colonoscopy

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DOI 10.1055/s-0044-1782850

Aims Lifestyle and modifiable risk factors play important roles in the development and progression of colorectal polyps. We evaluated the risk factors associated with the development of three different precursor lesions of colorectal cancer using a large screening colonoscopy database.

Methods In this cross-sectional cohort study, 9,025 patients who underwent screening colonoscopy between 2019 and 2021 at a tertiary university-affiliated hospital were enrolled. The risk factors for the development of colorectal cancer precursor lesions were evaluated.

Results Overall, 3,641 (40.3 %) participants had non-advanced adenomas, 836 (9.3 %) had advanced adenomatous lesions, and 533 (5.9 %) had sessile serrated lesions. Obesity, current smoking, and appendicular skeletal muscle mass were identified as modifiable risk factors for the development of non-advanced adenoma and advanced adenomatous lesion. Moreover, the degree of obesity was positively associated with an increased risk of developing non-advanced adenoma and advanced adenomatous lesion (all P for trend < 0.001), whereas non-smoking was associated with a decreased risk (all P for trend < 0.001). Current smoking was the only modifiable risk factor for the development of sessile serrated lesions (adjusted odds ratio [aOR], 1.58; 95 % confidence interval [CI], 1.20–2.07) and the risk was further increased in patients with metabolic syndrome (aOR 1.71; 95 % CI, 1.05–2.77).

Conclusions Current smoking, obesity, and low appendicular skeletal muscle mass were associated with an increased risk of developing non-advanced adenoma and advanced adenomatous lesions. Conversely, smoking was the only significant modifiable lifestyle risk factor for the development of sessile serrated lesions.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP139 Sizing colorectal adenomas and potential implications for further surveillance

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DOI 10.1055/s-0044-1782851

Aims Adenomatous polyps are well-known preneoplastic lesions of colorectal cancer (CRC). Endoscopic resection of adenomas reduce the incidence of CRC. Surveillance colonoscopy in such cases is mandatory and the time intervals are based on the initial findings at index colonoscopy where size of the adenomas has an important role for determing surveillance intervals. Even there are many guidelines for surveillance colonoscopy, none of these offer details on how to measure the size of adenoma and whether to use endoscopy or pathology size. Aim of the study was to compare endoscopy sizing and pathology sizing of colorectal adenomas and to establish potential implications for surveillance colonoscopy.

Methods The retrospective study included data about adenoma's sizes from endoscopy and pathology reports from the hospital database available from intact adenomas removed at colonoscopies. Chi-squared tests were applied to compare size categories in relation to clinicopathological parameters and colonoscopy surveillance recommendations according to current ESGE guidelines and American Gastroenterology Association guidelines.

Results The study included 2511 adenomas endoscopically resected from 1322 individuals. The overall sizing concordance was good. Significantly greater clustering with sizing to the nearest 5 mm was found in endoscopy vs pathology sizing (25 % vs 16 %, $p < 0.01$); this may result in low accuracy. Applying a 10-mm cut off relevant to guidelines for risk stratification and surveillance intervals, 7.5 % of all adenomas and 31 % of those 8 to 12 mm in size had discordant sizes at endoscopy and pathology. These findings show that, depending upon which guidelines are used, 4.9 % to 10.1 % of individuals had different risk stratification for surveillance recommendations, and use of pathology sizing indicates a fewer number of surveillance colonoscopies.

Conclusions Even the overall sizing concordance between endoscopy and pathology is good, the preferential use of pathology sizing would result in a small, but clinically important, decreased number of surveillance colonoscopies and decrease the burden of unnecessary colonoscopies.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP140 Reduced Quality of Life in Patients with Polyposis Syndromes is revealed by the Short Form Health Survey (SF-36)

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DOI 10.1055/s-0044-1782852

Aims Polyposis syndromes encompass a group of genetic disorders characterized by the development of multiple polyps in the gastrointestinal tract. Medical surveillance and regular endoscopic monitoring are imperative due to the risk of gastrointestinal carcinoma. This prospective study evaluates the impact of polyposis syndromes, specifically familial adenomatous polyposis (FAP), on the quality of life (QoL) measured by the Short Form Health Survey (SF-36) in comparison to the healthy German cohort provided by the SF-36 manual.

Methods Medical records were reviewed to identify 514 patients with polyposis syndromes who had undergone endoscopic surveillance at Heidelberg University Hospital from 2017 to 2021. Between October 2022 and July 2023 patients were contacted by phone and a total of 200 patients (polyposis cohort) completed the structured QoL SF-36 questionnaire. Two patients were excluded from statistical analysis due to incomplete data. The results were calculated according to the SF-36 manual and compared to a control group of German individuals completed the SF-36 in 1994 without preexisting conditions (healthy cohort) respectively patients diagnosed with cancer (cancer cohort) as provided by the manual. The SF-36 represents 8 domains: physical function (PF), role limitations due to physical health (RP), body pain (BP), general health (GH), vitality (VT), social functioning (SF), role limitations due to emotional problems (RE), and mental health (MH). One-way-ANOVA was applied for statistical analysis with GraphPad software, Boston, U.S.A.

Results The cohort of polyposis patients consisted of 154 FAP, 24 attenuated FAP (aFAP) and 22 patients with other conditions including Peutz-Jeghers syndrome, MUTYH-associated polyposis and serrated polyposis syndrome. Mean age was 49.1 (range: 19.6 – 85.6) years, 49 % (n = 98) were male. When compared to the healthy cohort, polyposis syndrome patients demonstrated significantly lower QoL scores, particularly in domains associated with physical health, role limitations due to physical health, body pain and vitality ($p < 0.0001$). When compared to the cancer cohort, patients with polyposis syndromes had similar, not statistically different reduced scores regarding vitality, social functioning and role limitations due to emotional problems. Polyposis patients aged ≥ 60 years (n = 52) showed significant worse QoL in SF-36 domains associated with physical function ($p = 0.0266$) and role limitations due to physical health ($p = 0.0004$) compared to younger patients (< 60 years, n = 146).

Conclusions The significant reduced QoL emphasizes the importance of personalized multidisciplinary approaches to address the specific needs of polyposis patients in order to improve overall well-being of polyposis patients. Special attention should be paid to elderly patients as physical function limitation especially after ileoanal surgery are aggravated by geriatric comorbidities.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP141 Quality of Life Assessment in Patients with Polyposis Syndromes and Ileoanal Surgery: Implications for Comprehensive Care

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DOI 10.1055/s-0044-1782853

Aims Familial Adenomatous Polyposis coli (FAP) as the most prevalent polyposis syndrom is a condition associated with an almost one hundred percent likelihood of developing colorectal carcinoma. Current therapy involves prophylactic proctocolectomy with ileal pouch anal anastomosis (IPAA) or ileorectal anastomosis (IRA) and lifetime regular endoscopic monitoring of duodenal and pouch adenomas. However, data regarding the longterm outcome of quality of life (QoL) is scarce although this represents a crucial factor in the therapeutic trajectory of these patients.

Methods QoL of patients treated at the polyposis outpatient service of the University Hospital Heidelberg, Germany, was analyzed by two validated questionnaires. The "Gastrointestinal Quality of Life Index" (GIQLI) evaluates QoL specifically in patients with gastrointestinal diseases categorized in the four domains gastrointestinal symptoms, emotional role, physical and social function. The PA-F-KF questionnaire about the fear of disease progression enabled to assess patients' concerns about worsening of the disease stage. Students t-test was applied for statistical analysis.

Results Our cohort of 167 polyposis patients consisted of 133 FAP patients, 18 attenuated FAP (aFAP) patients, 6 serrated polyposis syndrome patients, 6 MUTYH-associated polyposis patients, and 2 Peutz-Jeghers syndrome patients. 51.5 % were female (n = 86). The average age was 47.9 years (range: 19-85). A total of 125 and 22 patients had undergone IPAA and IRA, respectively. No colorectal surgery was performed in 20 patients, representing the control group. Patients after IPAA or IRA expressed a significant lower total GIQLI score compared to patients without ileoanal surgery ($p = 0.042$). This was primarily reflected by a significant lower physical function sum score ($p = 0.002$) and worse gastrointestinal symptoms sum score ($p = 0.045$), especially on items such as waking up at night, worsening of physical fitness, diarrhea and urge. No apparent differences were observed in the GIQLI scores regarding emotional role and social function. However, a substantial disparity emerged concerning the fear of progression related to their illness. Patients with ileoanal surgery experienced descriptively fewer anxieties about the future in all 12 items of the PA-F-KF resulting in a significant higher total fear of progression score in patients without surgery ($p = 0.012$).

Conclusions Impaired QoL was predominantly reflected by loss of physical functions after ileoanal surgery on one side and the fear of disease progression on the other side. This suggests that a more intensive interdisciplinary collaboration between surgeons, endoscopist and psychooncologists could yield sustainable benefits for patients with polyposis syndromes.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP142 Faecal immunochemical test to detect colorectal neoplasia in Lynch syndrome – a prospective multicentre study

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DOI 10.1055/s-0044-1782854

Aims Colonoscopy surveillance for Lynch syndrome is burdensome and post-colonoscopy colorectal cancers (CRCs) still occur. The non-invasive faecal immunochemical test (FIT) might guide optimal colonoscopy intervals.

Methods Prospective, multi-centre observational study in which individuals with Lynch syndrome performed a quantitative FIT prior to high-quality surveillance colonoscopy. Diagnostic performance of FIT at various thresholds ≤ 20 µg/g was assessed for relevant neoplasia, including advanced neoplasia (CRC, advanced adenomas [AA] and advanced serrated lesions [ASL]) and non-advanced adenomas (NAA).

Results Of the 217 included individuals (59 % female, median age 51 years), 4 had CRC, 5 AA, 4 ASL and 57 NAA as most relevant neoplasia. The lowest FIT positivity threshold (2.55 µg/g, 14 % positivity rate) maximised detection: 4/4 CRCs, 4/5 AA, 1/4 ASL and 9/57 NAA were detected, resulting in a sensitivity and negative predictive value (NPV) of, respectively, 89 % and 99 % for CRC plus AA, 69 % and 97 % for advanced neoplasia, and 26 % and 72 % for all relevant neoplasia (91 % specificity for all groups). At equal sensitivity and NPV, specificity for advanced neoplasia optimised to 94 % at threshold 4.08 µg/g. Per 100 FITs at threshold 4.08 µg/g, 11 individuals would test positive and thus be referred for colonoscopy, 2 individuals with advanced neoplasia would be missed and 3 individuals would need colonoscopy to detect 1 advanced neoplasia.

Conclusions FIT ≤ 4.08 µg/g may be a safe strategy to postpone colonoscopy in approximately 9 out of 10 individuals with Lynch syndrome. Large validation studies that also provide gene mutation-specific outcomes should be prioritised.

Conflicts of interest ELSAvL, MEvL, MAJMJ, JJK, JPK and ML declare no competing interests. NKHdB has served as a speaker for AbbVie and MSD and has served as a consultant and principal investigator for TEVA Pharma BV and Takeda. He has received a research grant (unrestricted) from Dr. Falk, TEVA Pharma BV, Dutch Digestive Foundation (MLDS) and Takeda. ED has endoscopic equipment on a loan of FujiFilm and has received a research grant from FujiFilm. She has received an honorarium for a consultancy from FujiFilm, Olympus, InterVenn and Ambu, and speakers' fees from Olympus, GI Supply, Norgine, IPSEN, PAION and FujiFilm. MCWS has received research support from Sysmex, Sentinel, Medtronic and Norgine. BC has several patents pending and/or issued. DR has received a research grant (unrestricted) from AbbVie. He has served as a member of the data safety monitoring board of the VIVIAD trial.

OP143 Rate of undetected dysplasia at colectomy in patients with IBD – What are we missing at colonoscopy?

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DOI 10.1055/s-0044-1782855

Aims Patients with Inflammatory Bowel Diseases (IBD) are at higher risk of developing dysplastic lesions and colorectal cancer (CRC). Despite the use of high-definition endoscopes, dysplasia is not always detected at colonoscopy. This study aims to determine the rate of dysplastic lesions detected only at colectomy in IBD patients and to identify the characteristics of patients with undetected dysplasia.

Methods We retrospectively identified IBD patients that underwent total or sub-total colectomy at Mayo Clinic, between January 2013 and December 2022. Patients with a confirmed IBD diagnosis, with at least one colonoscopy report prior to surgery available, were included. Data collected was demographics, comorbid conditions, colonoscopy, surgery, and their pathology reports. Concordance between dysplasia found at colonoscopy and dysplasia found at surgery was evaluated, noting dysplasia sites and grade. Patients were then divided into three groups: those with at least one undetected dysplastic lesion at surgery, those with dysplasia detected at colonoscopy and no further lesions at surgery, and those without dysplasia at both.

Results Seven hundred-four patients were included: 387 (55 %) were male, 450 (64 %) had ulcerative colitis, 197 (28 %) had Crohn's disease and 57 (8 %) had indeterminate colitis.

In 42 patients (6 %) dysplasia was undetected at colonoscopy, 136 (19.3 %) had dysplasia detected at colonoscopy, and 526 (74.7 %) had no dysplasia at both. In the group with dysplasia detected, 40 patients (30 %) had dysplasia only at colonoscopy while 96 (70 %) had dysplasia at surgery as well.

Among those with undetected dysplasia, in 17 (40 %) dysplasia was identified only at surgery: 14 (82 %) had low grade dysplasia and 3 (18 %) had cancer. All cancers were stage one. Three of these patients (18 %) had primary sclerosing cholangitis and 4 (23 %) had a family history of cancer. In the other 25 patients (60 %), dysplasia was detected at colonoscopy but further dysplastic foci were identified at surgery. In 13 (52 %) patients dysplasia was upgraded, in 2 (8 %) was downgraded and in 10 (40 %) the grade was confirmed. Compared to those with detected dysplasia, these patients more frequently had moderate-severe disease activity, and less frequently a prior history of dysplasia. There was no difference in age at surgery, but those with undetected dysplasia had less years of disease at colectomy.

Conclusions The rate of dysplastic lesions found at colectomy and missed at colonoscopy is 6 %. Dysplastic lesions tend to be undetected when endoscopic disease activity is more severe and regardless of the use of extensive nontargeted biopsies.

Conflicts of interest Authors do not have any conflict of interest to disclose.

New Frontiers in Barretts esophagus surveillance

26/04/2024, 11:30 – 12:30 **Room 8**

OP155 Can Capsule sponge (Cytosponge/Endosign) be used safely as part of a Barrett's Surveillance programme? – Retrospective review of Barrett's dysplasia patterns over a 6-year period in a single site secondary care

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DOI 10.1055/s-0044-1782856

Aims Capsule sponge triage was introduced in the UK as part of a national evaluation to address the challenges associated with delayed endoscopic Barrett's surveillance during the pandemic. This study aims to assess the incidence and grade of Barrett's dysplasia over time in patients who are part of Barrett's Oesophagus surveillance programme.

Methods The capsule sponge service was initiated in a non-specialist hospital serving a population of 600,000 in November 2020. To evaluate its impact, a retrospective analysis of oesophageal pathology findings from November 1st, 2017, to October 31st, 2023 was conducted. Data was retrieved from the pathology department, including oesophageal pathology reports indicating non-dysplastic Barrett's Oesophagus (NDBO), dysplasia, and intramucosal carcinoma. Only the pathology report with the highest grade of dysplasia for a single patient in a single year was included. In the post-capsule sponge group (November 1st, 2020, to October 31st, 2023) we included the number of capsule sponges yielding negative results for p53/atypia done for Barrett surveillance as an alternative measure of NDBO.

Results In the pre-capsule sponge era (November 1st, 2017, to October 31st, 2020), there were a total of 860 gastroscopies. In the post-capsule sponge period (November 1st, 2020, to October 31st, 2023), our dataset included 717 OGDs and 333 capsule sponge tests (which yielded negative results for p53 and Atypia). Capsule sponge tests with positive p53 and/or Atypia (indicative of dysplasia) were counted once, as these patients underwent OGDs through the Two-Week Wait (2WW) pathway. The overall percentage of patients with dysplasia (Indefinite for Dysplasia [IFD], Low-Grade Dysplasia [LGD], High-Grade Dysplasia [HGD], and Intramucosal Carcinoma) in the pre-capsule sponge group was 13.37 %, compared to 12.95 % in the post-capsule sponge group (Chi Test p-value = 0.78). Interestingly, the rate of LGD increased from 2.32 % in the pre-capsule sponge group to 3.14 % in the post-capsule sponge group. Meanwhile, both the rates of IFD and HGD decreased from 5.47 % and 3.84 %, respectively, in the pre-capsule sponge group to 4.67 % and 2.86 %, respectively, in the post-capsule sponge group.

Conclusions The introduction of capsule sponge and the concomitant reduction in endoscopic Barrett's Oesophagus surveillance and investigations did not significantly impact the overall rate of dysplasia, with no significant statistical difference noted in both study periods. Within our cohort, a higher rate of LGD was identified in the post-capsule sponge group, suggesting that capsule sponge may facilitate the detection of early dysplastic changes. Similar findings were presented by the Scottish NHS evaluation. Limitations of this study are the relatively small number of patients with dysplasia. This work supports the increasing body of evidence for capsule sponge triage in Barrett's surveillance. Selecting patients with additional risk factors may help determine which patients should have gastroscopy and who can avoid gastroscopy longer term. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

References

[1] Natalie Tse YT, Glen P Chien SO15 Impact of introduction of a cytosponge barrett's oesophagus surveillance service on the endoscopic pathology pattern. Gut 2023; 72: A7–A8

OP156 Genomic markers for enhanced risk stratification in Barrett's esophagus patients with Low-Drade Dysplasia

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DOI 10.1055/s-0044-1782857

Aims Current risk stratification of Barrett's esophagus (BE) patients, based on histological identification of dysplasia, lacks reliability due to poor interobserver agreement and the limited predictive value of low-grade dysplasia (LGD). This study aims to identify genomic factors enhancing risk stratification for BE patients with a community diagnosis of LGD.

Methods Progressors to early esophageal adenocarcinoma and non-progressors were identified in a randomized controlled trial screening cohort of community-based LGD patients. Sequencing used a targeted capture-based panel to detect mutations and copy number changes (CNV). Detected mutations, homozygous deletions, and high-level amplifications underwent filtering for likely pathogenic events. We performed logistic regression, covariate analysis, and penalized mixed-effect models. A joint model for survival and mixed effects was applied for spatiotemporal data analysis.

Results 220 samples, comprising 28 progressors with a median time to progression of 1.2 (IQR 0.4-2.2) years and 95 non-progressors with a median progression-free follow-up of 7.9 (IQR 5.9-10.6) years, all with a median C3M5 BE, were analyzed. Multiple factors were associated with progression, including *TP53* ($p < 0.0001$, Hazard Ratio (HR) = 13.39, 95 % confidence intervals (CI) 5.64-31.78), chromosomal arm 17p loss ($p < 0.0001$, HR = 10.24, 95 % CI 4.82-21.76), mutational burden ($p < 0.001$, HR = 1.52, 95 % CI 1.21-1.90), and total number of CNVs ($p < 0.0001$, HR = 1.48, 95 % CI 1.34-1.64). Several other alterations trended to be associated with progression, including *APC* mutation and presence of an oncogenic amplification. The combined influence of *TP53* and 17p loss enhanced the accuracy of risk prediction. However, high correlation precluded their use as cumulative risk. Patients with samples containing > 3 mutations had a very high risk of progression (HR = 10.33, 95 % CI 2.22-48.01). Presence of any genetic variant—amplification, deletion, CNV, or mutation—indicated progression risk ($p < 0.0001$, HR = 1.15, 95 % CI 1.11-1.21). Samples lacking any genetic variants showed no progression. A combined *TP53* and CNV model effectively identifies progression risk with 64 % sensitivity, 96 % specificity and an AUC of 0.837, distinguishing 91 out of 95 non-progressors.

Conclusions This study not only reinforces the well-established role of *TP53* mutations but also introduces crucial novel genomic markers. The addition of 17p loss emerges as indispensable for enhanced risk assessment. Furthermore, distinct genetic variations, including CNVs and total mutations, individually and collectively signify a significantly higher risk. Intriguingly, patients without any distinctive genetic abnormalities did not progress. A combined genomic model could accurately risk stratify BE patients with a community-based LGD diagnosis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP157 Identifying putative genomic biomarkers for risk stratification in Barrett's esophagus patients with normal histological features

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Aims Current surveillance for low-risk Barrett's Esophagus (BE) patients is burdensome, cost-ineffective and dependent on subjective histological assessment of dysplasia with high inter-observer variability. This study aims to identify genomic features that can be identified in a clinically translatable targeted sequencing panel, enhancing the stratification of low-risk BE patients and enabling personalized surveillance strategies.

Methods BE patients identified as progressors to early esophageal adenocarcinoma or non-progressors from a large community-based cohort, were matched for age, sex and BE segment length. DNA from baseline and prior non-dysplastic biopsies was sequenced using a targeted capture-based panel designed to detect mutations and copy number changes (CNV). Detected mutations, homozygous deletions, and high-level amplifications were filtered for likely pathogenic events. We performed logistic regression, covariate analysis, and penalized mixed-effect models. A joint model for survival and mixed effects was implemented to analyze the data distributed over space and time.

Results 331 baseline samples and 214 temporal samples, accounting for 105 progressors who progressed after a median 4 (IQR 2.4-7.2) years, and 115 non-progressors who had a median progression-free follow-up of 6 (IQR 4.3-7.3) years, were analyzed. *TP53* mutations strongly predict risk ($p < 0.0001$, Hazard Ratio (HR) = 3.84, 95 % confidence interval (CI) 2.89-5.67) as does CNV 17p loss ($p < 0.0001$, HR = 4.41, 95 % CI 2.29-8.52). While there is significant overlap between *TP53* mutations and 17p loss, patients with both trended to progress faster. Chromosomal arm CNVs ($p = 0.0012$, HR = 1.32, 95 % CI 1.14-1.52), amplifications ($p < 0.001$, HR = 2.89, 95 % CI 1.57-5.31) and mutational burden ($p < 0.0001$, HR = 1.30, 95 % CI 1.21-1.40) were also associated with progression risk. A combined model incorporating: —TP53 mutations, 17p loss, and mutational burden—demonstrated a 57 % sensitivity and 84 % specificity and an AUC of 0.758. This model identified 60 of 105 progressors in non-dysplastic BE patients.

Conclusions As expected, *TP53* was a pivotal risk factor in this spatial and time-dependent cohort, even in the absence of dysplasia. Two hits in *TP53* (mutation with 17p loss) suggested a trend toward near term progression, suggesting the possibility of more refined stratification. Prior studies focused on either mutations or CNVs for risk stratification. We show the combination of both, detected in a clinically translatable assay, improves prognostic value, effectively identifying the majority of progressors among non-dysplastic BE patients while maintaining an acceptable false-positive rate. This approach has the potential to dramatically impact risk stratification and surveillance strategies in non-dysplastic BE patients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP158 Human-Computer Interaction: Impact of Artificial Intelligence on the diagnostic confidence of endoscopists assessing videos of Barrett's esophagus

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Aims Human-computer interactions (HCI) may have a relevant impact on the performance of Artificial Intelligence (AI). Studies show that although endoscopists assessing Barrett's esophagus (BE) with AI improve their performance significantly, they do not achieve the level of the stand-alone performance of AI. One aspect of HCI is the impact of AI on the degree of certainty and confidence displayed by the endoscopist. Indirectly, diagnostic confidence when using AI may be linked to trust and acceptance of AI. In a BE video study, we aimed to understand the impact of AI on the diagnostic confidence of endoscopists and the possible correlation with diagnostic performance.

Methods 22 endoscopists from 12 centers with varying levels of BE experience reviewed ninety-six standardized endoscopy videos. Endoscopists were categorized into experts and non-experts and randomly assigned to assess the videos with and without AI. Participants were randomized in two arms: Arm A assessed videos first without AI and then with AI, while Arm B assessed videos in the opposite order. Evaluators were tasked with identifying BE-related neoplasia and rating their confidence with and without AI on a scale from 0 to 9.

Results The utilization of AI in Arm A (without AI first, with AI second) significantly elevated confidence levels for experts and non-experts (7.1 to 8.0 and 6.1 to 6.6, respectively). Only non-experts benefitted from AI with a significant increase in accuracy (68.6 % to 75.5 %). Interestingly, while the confidence levels of experts without AI were higher than those of non-experts with AI, there was no significant difference in accuracy between these two groups (71.3 % vs. 75.5 %). In Arm B (with AI first, without AI second), experts and non-experts experienced a significant reduction in confidence (7.6 to 7.1 and 6.4 to 6.2, respectively), while maintaining consistent accuracy levels (71.8 % to 71.8 % and 67.5 % to 67.1 %, respectively).

Conclusions AI significantly enhanced confidence levels for both expert and non-expert endoscopists. Endoscopists felt significantly more uncertain in their assessments without AI. Furthermore, experts with or without AI consistently displayed higher confidence levels than non-experts with AI, irrespective of comparable outcomes. These findings underscore the possible role of AI in improving diagnostic confidence during endoscopic assessment.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP159 Image quality pitfalls in AI: Safeguarding Barrett's neoplasia detection with robust deep learning training strategies

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Aims Endoscopic artificial intelligence systems, developed in expert centers with high-quality imaging, may underperform in community hospitals due to image quality heterogeneity. This study aimed to quantify the performance degradation of a CADe system for Barrett's neoplasia, when exposed to the heterogeneous imaging conditions of community hospitals. Subsequently, different state-of-the-art training strategies were evaluated to mitigate this performance loss.

Methods We developed a CADe system using a high-quality, expert-acquired training set comprising 437 images from 173 neoplastic Barrett's patients and 574 images from 200 non-dysplastic Barrett's esophagus patients. We assessed its performance on high, moderate and low-quality test sets, each containing 120 images derived from the same group of 65 neoplastic Barrett's patients and 55 non-dysplastic Barrett's patients. These test sets were completely independent from the training set and simulated the heterogeneous image quality of community hospitals. We then applied four robustness enhancing strategies: diversified training data, domain-specific pretraining, targeted data augmentation, and architectural optimization.

Results The CADe system, when trained exclusively on high-quality data, achieved an AUC score of 82 % on the high-quality test set. AUC scores were significantly lower on the moderate (79 %; $p < 0.001$) and low-quality (70 %; $p < 0.001$) test sets. Incorporating robustness enhancing strategies significantly improved the AUC to 93 % for high-quality ($p = 0.020$), 94 % for moderate-quality ($p = 0.006$), and 84 % for low-quality test sets ($p = 0.002$). These robustness enhancing strategies also led to a significantly decreased performance drop on the moderate (+ 1 % vs -3 %; $p < 0.001$) an low-quality test sets (-9 % vs -12 %; $p = 0.004$).

Conclusions CADe systems that are trained solely on high-quality images may not perform well on the variable image quality found in routine clinical practice. However, in this study we show that the use of state-of-the-art robustness enhancing strategies can significantly improve its robustness and absolute performance, increasing the likelihood of successful implementation of artificial intelligence systems in clinical practice.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP160 Additional value of expert care for patients with ultra-long Barrett's Esophagus in the Netherlands: results of the nationwide Barrett Expert Center Registry

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Aims The neoplastic progression risk in Barrett's Esophagus (BE) increases with increasing BE length. Therefore, some guidelines recommend that patients with ultra long-segment BE ≥ 10cm (ULS-BE) are referred to an expert center, however, recommendations on further management are lacking. This study aimed to evaluate findings of an imaging endoscopy performed at a Barrett Expert Center (BEC), for patients with ULS-BE.

Methods We included patients with flat, non-dysplastic BE ≥ 10cm who were referred to one of the eight Dutch BECs between January 2018 and June 2022. Patients diagnosed with visible lesions or dysplasia in the referring hospital,

were excluded. Imaging endoscopy in the BEC consisted of careful imaging with adequate sedation by an experienced endoscopist, and histologic sampling according to the Seattle protocol. As routine of care, histology was assessed by an experienced pathologist. Outcomes included the proportion of patients diagnosed with a visible lesion; the proportion of patients diagnosed with dysplasia; and the risk of progression during surveillance.

Results We included 220 patients with median BE length of C11M12 (IQR 9-12; 10-14) (mean age 63 years (SD 11)). BEC imaging endoscopy, performed median 3 months (IQR 2-10) after the last endoscopy in the referring center, revealed a visible lesion in 8/220 patients (4 %), containing cancer (n = 3), high-grade dysplasia (HGD, n = 3) or low-grade dysplasia (LGD, n = 2). Additionally, random biopsies in the absence of visible lesions showed LGD in 31 patients (14 %) and HGD in 2 patients (1 %). So, upon referral to a BEC, 41 patients (19 %) were upstaged from no dysplasia to BE with dysplasia or cancer.

For 155/220 patients, non-dysplastic ULS-BE was confirmed after BEC imaging endoscopy with adequate biopsy sampling. The remaining patients had dysplasia (n = 41) or had inadequate histologic sampling (n = 24). Patients with confirmed non-dysplastic ULS-BE underwent endoscopic surveillance (n = 119) or will be scheduled for surveillance, according to guideline advised intervals (n = 36). During median 27 months of surveillance (IQR 23-47) with median 2 endoscopies (IQR 1-2), 8/119 patients progressed to HGD/cancer (7 %) and 14/119 to LGD (12 %) after median 26 months (IQR 18-37). The progression rate to HGD/cancer was 2.5 per 100 patient years (95 % CI 1-5). Progression to HGD/cancer was detected as visible abnormalities (n = 7; 2 HGD, 5 cancer) or in random biopsies (n = 1: HGD). All patients with progression to HGD/cancer were treated endoscopically.

Conclusions Endoscopic inspection with adequate pathology sampling by Barrett experienced endoscopists for patients with USL-BE, upstaged the initial diagnosis of NDBE to dysplasia or cancer in 19 % of patients, of which 4 % was upstaged to HGD/cancer. Expert care may be beneficial for the high-risk population with ULS-BE.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Let It Flow! Endotherapy for Gastroparesis and Gastric Outlet Obstruction

26/04/2024, 11:30 – 12:30 **Room 10**

OP161 Long-term results of endoscopic pyloromyotomy: follow-up of a randomized, sham-controlled trial (GREG)

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Aims We previously reported 6 months results of a prospective randomized sham-controlled trial comparing endoscopic pyloromyotomy (G-POEM) with a sham procedure in patients with gastroparesis (GREG, 1). G-POEM was superior to sham in terms of symptoms improvement and gastric emptying rate. Moreover, cross-over G-POEM, which was performed after a sham procedure was effective in 75 % of patients. All patients have been prospectively followed according to an original protocol. Here, we report the long-term results. Unblinding of patients occurred 6 months after the originally allocated procedure (G-POEM or sham).

Methods In GREG trial, G-POEM has been compared to a sham procedure in patients with refractory and severe gastroparesis (gastroparesis cardinal symptom index (GCSI) > 2.3, duration of symptoms of at least 6 months, with no adequate response to conservative measures). Patients randomized to the sham group with persistent symptoms were offered cross-over G-POEM. Symptoms were assessed in all enrolled patients (including those with a sham procedure only) at 12, 24 and 36 months, gastric emptying study and upper GI endoscopy were repeated at 12 months only in patients who underwent G-POEM (either primary or cross-over). The main outcomes were proportion of patients with treatment success and recurrences. Kaplan-Meier curve has been constructed to analyze the long-term effects.

Results From a total of 41 randomized patients with gastroparesis (17 diabetic, 13 postsurgical, 11 idiopathic; 46 % male), 33 patients received G-POEM (21 primary, 12 cross-over). Among these, median follow-up was 24 months and treatments success rates evolved from 71 % (95 % CI: 59 %-90 %) at 6 months to 65 % (95 % CI 52 %-85 %) at 12 months, 62 % (49 %-82 %) at 24 months and 59 % (95 % CI 44 %-78 %) at 36 months. The corresponding numbers for diabetic, postsurgical and idiopathic gastroparesis at 36 months were 71 % (51 %-100 %), 36 % (17 %-80 %) and 65 % (39 %-100 %). Overall, 4 patients (2 diabetic, 1 postsurgical, 1 idiopathic) with previous treatment success experienced a recurrence of symptoms, however none of these patients required further intervention yet. One female patient with a primary treatment failure underwent redo G-POEM with treatment success (post-surgical etiology). Median gastric retention at 4 hours did not change between 3- and 12-months follow-up (6.7 % to 10.0 %). Seven patients underwent a sham procedure only, 4 achieving treatment success at 6 months. There were no symptomatic recurrencies up to 36 months follow-up. Among three “only sham” patients without a treatment success, one patient died from other reason and two patients who initially refused cross-over G-POEM decided to undergo this procedure later (one with treatment success, one is scheduled).

Conclusions Endoscopic pyloromyotomy leads to a sustained improvement in approximately two thirds of patients with refractory GP and the rate of recurrencies is low. Diabetic and idiopathic GP showed a trend towards a higher long-term effect compared to postsurgical GP. Significant improvement of symptoms after sham procedure was infrequent but long-lasting. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP162 Drain-assisted EUS-guided gastroenterostomy in the treatment of gastroparesis refractory to endoscopic pyloromyotomy by GPOEM: a novel promising therapeutic option

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Aims Gastric peroral endoscopic myotomy (GPOEM)has become an important treatment for refractory gastroparesis, demonstrating efficacy of around 65-70 % in the last 2 randomized studies. Nevertheless, 30 % of patients are non-responders, with few alternatives for them. In parallel, endoscopic ultrasound guided gastroenterostomies (EUS-GEA) has been developed in recent years for malignant, and more recently benign, antropyloric obstructions, with excellent clinical results (> 90 %). We present the results of this technique in gastroparesis refractory to GPOEM.

Methods This was a single-center retrospective pilot study in an expert center. Patients with scintigraphically proven gastroparesis, who had previously undergone GPOEM with either initial failure or sustained symptoms recurrence, and treated with EUS-GEA were included.

The indication was validated during functional pathology meeting and explained to the patients. Procedures were performed in intubated patients, using the drain-assisted EUS-GEA technique and a 20mm lumen apposing stents (LAMS, Axios, Boston, USA). Clinical efficacy was the primary objective,

assessed at 6 months by the GCSI (definition: decreasing greater than 50 % from baseline). Secondary objectives were adverse events, weight gain and recurrence rate.

Results Twelve patients were included between June 2021 and April 2023, 9 women 3 men, median age 46 years [16-78]. All patients had an abnormal gastric emptying scan except one who had a bezoar. The mean time to improvement after GPOEM was 8.1 ± 15 months, and 50 % of patients never improved. Median follow-up was 11.5 months [6-26].

Clinical efficacy was achieved in 75 % of patients at 6 months, whereas in the remaining 3 patients, GCSI was still reduced by more than 1 point. The median preoperative GCSI was 4.1 [1.6 – 5] versus 1.6 [0-2.6] at 6 months follow-up ($p < 0.05$). No per-procedural complications or GEA-related adverse events were observed. During follow-up, all patients regained their weight. Two patients partially relapsed after 12 months but had severe terminal constipation.

Conclusions EUS-GEA with the drain-assisted technique is a very promising, safe and effective treatment for gastroparesis refractory to all other treatments including GPOEM. These results need to be confirmed prospectively.

Conflicts of interest Pr. Gonzalez and Pr. Barthet: Consultants for Boston Scientific, Fujifilm, Taewong

OP163 Treatment of Benign Gastric Outlet Obstruction (B-GOO) with Endoscopic Ultrasound-Guided Gastroenteroanastomosis (EUS-GE) Using Lumen-Apposing Metal Stent (LAMS): Long-Term Assessment

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Aims Endoscopic ultrasound-guided gastroenteroanastomosis (EUS-GE) with lumen-apposing metal stent (LAMS) is commonly employed for malignant gastric outlet obstruction (GOO). However, 30-40 % of GOO cases have a benign aetiology (B-GOO). Traditionally managed surgically, B-GOO poses challenges for poor operative candidates due to comorbidities. This study aims to assess the baseline features, indications, technical success, clinical outcomes, adverse events, and long-term patency of EUS-GE with LAMS in patients with B-GOO

Methods We conducted a retrospective multicenter study in Spain, including patients with B-GOO treated with EUS-GE using LAMS between 2017 and 2023. Clinical success was defined as the recovery of oral tolerance without the need for surgery, enteral feeding tubes , or parenteral nutrition. Failure included both technical (failed LAMS placement) and clinical failure or LAMS removal because of adverse events.

Results A total of 69 patients (73.9 % male) from nine centers, with a median age of 62.96 years (SD 19.40), were included. Extra-luminal pancreatic disease was the most common cause of B-GOO (63.8 %), Intraluminal strictures (11 peptic, 3 anastomotic, 1 other) were present in 22.7 % Overall, 76.8 % of strictures were located in the duodenum. The nasobiliary-drain assisted technique was used in all patients;20x10-mm was the most frequent LAMS (72 %). Free-hand LAMS insertion was used in 88.24 % . Technical success was achieved in 97.1 % of patients. Adverse events occurred in 10.1 % (three mild fever, one severe bleeding, and one fatal bleeding). Clinical success was observed in 89.6 % of patients, with 11.3 % experiencing recurrent obstructive symptoms, primarily due to LAMS dysfunction caused by ingrowth (8.1 %). All recurrences were managed endoscopically: with a new stent placed coaxially (n = 3) or LAMS exchange (n = 1, food dissimpaction (n = 2) or de novo EUS-GE. Median follow-up was 1.2 years (IQR 0.33-2.3). The cumulative risk of procedure failure at two years was 15.75 % (CI 7.5-31.5), and cumulative risk of dysfunction was 21.23 % (CI 9.4-43.7). In 16 patients, EUS-GJ was used as a temporizing treatment, maintaining oral feeding until resolution of the root cause for luminal obstruction, with a median duration of 7.34 months (IQR 4.3-10.74). Thirteen of these patients had B-GOO caused by extra-luminal pancreatic disease

Conclusions EUS-GE for B-GOO appears to be safe, and suitable for both temporary and definitive palliative treatment in selected nonsurgical patients. Long-term clinical success rate is high, with fewong-term adverse events that can be managed endoscopically. [1–2]

Conflicts of interest Manuel Perez-Miranda, MD, PhD; Consultant and Speaker: Boston-Scientific, MITech, Olympus, Medtronic, Lumendi.

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OP164 EUS-guided gastroenterostomy for the management of benign gastric outlet obstruction: results of an european retrospective multicentric series

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Aims Benign gastric outlet obstruction (bGOO) is a common clinical condition. Surgical gastroenterostomy (S-GE)are proposed in first line therapy according to patient's conditions. Recently EUS-guided gastroenterostomy (EUS-GE) appears to be an interesting alternative to treat GOO. ESGE suggests using EUS-GE to manage bGOO in patients with high surgical risk. Nevertheless, the lack of clear data on efficacy and safety are limiting its use. Furthermore, there is no recommendations about what to do with the LAMS after the EUS-GE.The aim of this study was to evaluate the outcomes of EUS-GE in benign gastric outlet obstruction .

Methods This is a multicenter retrospective european study including six tertiary centers. Consecutive patients who underwent EUS-GE between January 2015 and June 2023 for bGOO were included. The primary aim was the absence of surgical management by S-GE.

Our secondary outcomes were to evaluate technical success, efficacy and safety of EUS-GE in bGOO patients. The strategy for removing or changing the LAMS was also analysed.

Results A total of 25 patients with a mean age of 52.8 years were included. Etiology of bGOO were chronic pancreatitis (15 patients), gastroparesis (7 patients), ulcer (2 patients) and med-gastric twist after Sleeve gastrectomy (1 patient). Among them, 80 % were considered to be at high surgical risk to perform S-GE. Technical success was achieved in 100 % (25 cases) with no immediate complications. Clinical success was accomplished in 84 % of patients at day one and up to 100 % at day ten. At the end of a mean follow-up of 381 days (min 42-max 1806 d), 88 % (22 patients) did not require a S-GE. Long-term adverse events (> one month) were observed in 5 patients (20 %). Of these, 3 patients were reported jejunal ulcer due to impaction of the LAMS, 2 of which were complicated by peritonitis and were treated surgically. The others two

long term adverse events were a LAMS occlusion due to tissue overgrowth treated by changing LAMS and an abdominal pain syndrome treated medically.
Concerning LAMS removal, LAMS was removed in 6 patients (33 %), on average time after 166 days (min 72-max 275). Among them, 3 patients (50 %) had recurrent occlusion and underwent S-GE. Finally, at the end of the follow-up, 5 patients (20 %) died of a cause unrelated to the EUS-GE, and one of these patients had their stent removed. This reflects the poor prognosis of this patient, even though it is benign. [1–3]

Conclusions EUS-GE in bGOO avoids the need for S-GE in 88 % of patients. This procedure appears to be a good option for rapid removal of occlusion in high surgical risk patients. In patients eligible for surgery, this indication must be correlated with the risk of long-term advers events (20 %) and recurrence of occlusion after the LAMS removal.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP165 EUS-guided gastroenterostomy to treat refractory gastroparesis: preliminary results of the first german experience

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DOI 10.1055/s-0044-1782866

Aims Gastroparesis is a motility disorder of the stomach characterized by a delayed emptying of food into the small bowel in the absence of mechanical obstruction. Medical treatment is difficult and symptoms such as epigastric pain, nausea and vomiting can lead to a significantly reduced quality of life. As endosonographic-guided gastroenterostomy facilitates gastric emptying in patients with gastric outlet obstruction and has proven to be a save and effective in numerous clinical trials, it might also be a viable option to treat refractory gastroparesis. The aim of the study was to report the first experience with that approach and to evaluate its feasibility and efficacy.

Methods The data of 7 patients with refractory gastroparesis that underwent EUS-GE between march 2021 and august 2023 were retrospectively collected and analyzed. Primary endpoint was to assess the clinical success of the intervention which was defined as reduction in gastroparesis cardinal symptom index of at least 50 %. Secondary endpoints were to assess the stent patency, adverse events and the rate of reinterventions.

Results Technical and clinical success rate was 100 % with a mean reduction in gastroparesis cardinal symptom index of 69 %. During the still ongoing surveillance 2 stents had to be replaced after 12 months due to ingrowth, the other 5 stents still remain patent to this day after up to 2.5 years. We observed 2 stent obstructions in one patient due to food which had to be removed gastroscopically. No major stent related adverse events or mortalities have been observed.

Conclusions In our collective the EUS-guided-gastroenterostomy effectively reduced the symptom burden of gastroparesis refractory to medical treatment.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP166 Gastric peroral endoscopy pylorotomy (GPOEM) for managing refractory gastroparesis consecutive to esophageal resection : results from multicenter series

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DOI 10.1055/s-0044-1782867

Aims Severe gastroparesis (GP) is one of the major complications occurring in 15 to 40 % of patients after esophagectomy with gastric pull-through despite recent progress in surgical techniques. GP significantly impacts the patients' quality of life and nutritional status. Pylorospasm caused by bilateral vagotomy is believed to be an important pathophysiological factor responsible for development of GP in such situation. Endoscopic pyloromyotomy (GPOEM) has become promising treatment option for patients suffering from refractory GP. Thus, we aimed to assess the outcomes of this intervention for treating post-esophagectomy gastroparesis.

Methods This is a retrospective multicenter observational study, conducted in 10 European expert centers. All analyzed patients had undergone esophagectomy for esophageal cancer and developed severe and refractory GP as assessed by the GCSI (Gastric Cardinal Symptomatic Index) score. The diagnosis was confirmed by delayed gastric emptying confirmed by scintigraphy (GES) and/or bezoar at gastroscopy. All patients underwent endoscopic pylorotomy with at least 6 months of follow-up.
The primary endpoint was clinical success rate at 6 months, defined as a GCSI decrease by at least 1 point from baseline. The secondary outcomes were : clinical success at the end of follow-up, safety, technical features and impact on weight and quality of life (QoL).

Results A total of 70 patients, 51 % of men, with mean age of 65 ± 11 years were analyzed. The mean time between surgery and symptoms onset was 13.8 ± 22.1 months.
The mean baseline half emptying time, and percentage of 2- and 4- hour residual activity were105.6 ± 104.8 min, 63.7 ± 29.3 % and 64.8 ± 99 %. The baseline mean GCSI score was 2.9 ± 0.95 and the mean QoL evaluation (10) was poor (2.8 ± 1.5).
GPOEM was feasible in all the cases, with single myotomy in 87 % of cases, considered as more difficult than a regular procedure in 17 % of cases mostly because of the angulation of the antrum. No severe adverse events were reported.
The clinical success rate at 6 months was 80 % (n = 56), with a significant decrease of GCSI to 1.1 ± 1.2 ($p < 0.001$). QoL significantly improved (5.36 ± 2.2, $p < 0.001$).
Mean follow-up was 18.4 ± 15.1 months, and the clinical success rate at last evaluation was 77 %. A total of 72 % patients increased weight with a mean increase of 3.9 ± 2 kilograms.

Conclusions Endoscopic pyloromyotomy is a feasible, safe, and effective for gastroparesis following esophageal resection.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Eco-friendly endoscopy

26/04/2024, 11:30 – 12:30 Room 11

OP167 Assessing the Environmental Impact of Gastrointestinal Endoscopy Procedures at a Tertiary Care Institution in India: A Prospective Study on Waste Generation and Greenhouse Gas Emissions

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Aims In light of the pressing global challenge posed by climate change in the 21st century, it is important to address the substantial environmental impact of the healthcare sector, with a particular focus on Gastrointestinal Endoscopy (GIE) [1, 2]. GIE procedures involve the extensive use of consumables, contributing significantly to hospital waste and greenhouse gas (GHG) emissions. The primary aim of this research is to accurately measure the GHG emissions associated with GIE procedures in countries with emerging economies.

Methods For a comprehensive assessment of the environmental impact of GIE procedures, a prospective study was done at the AIG Hospitals in Hyderabad, India, from May 29th, 2023, to June 10th, 2023. Detailed data on total waste generated was collected, employing a color-coded system for disposable bags and classifying the waste into biohazard, potentially recyclable, and landfill waste categories. Measurements of electricity and water consumption associated with GIE procedures were recorded to assess resource usage. Utilizing the GHG protocol methodology, nationally recognized emission factors were applied to calculate GHG emissions from each source, which were expressed as **kgCO_2e**.

Results During the study period, we examined data from 3,244 consecutive patients who underwent a total of 3,873 procedures. Notably, the overall waste generated amounted to 1,728.05 kg, averaging **450 gm per procedure**. *Recycling these materials led to the avoidance of 261.26 kgCO_2e emissions, underscoring the positive environmental impact of recycling initiatives.* The total carbon footprint generated was 1,34,162.87 kgCO_2e (**34.64 kgCO_2e per procedure**). The emissions of Scope 1 (CO_2 gas), Scope 2 (Electricity consumption), and Scope 3 (purchased goods, waste generated, water consumption, and patient travel) were 4000 kgCO_2e, 14,521.68 kgCO_2e and 1,15,641.19 kgCO_2e respectively. Patient travel (62.4 %), water consumption (23.6 %), electricity consumption (10.8 %), medical gases (2.9 %), purchased goods (0.11 %), and waste generated (0.034 %) were the main contributors to GHG emissions.

Conclusions This study serves as a crucial reference point for guiding proactive measures toward sustainable healthcare practices and underscores the urgent need to address and mitigate GHG emissions associated with GIE procedures. The key recommendations to create a healthier future for both patients and the planet are: 1. Efficient water management; 2. Adoption of eco-conscious healthcare practices; 3. Informed sustainability initiatives by hospitals; 4. Balancing excellence with environmental stewardship; and 5. Embracing Artificial Intelligence (AI) in healthcare operations for judicious use of resources.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP168 Preliminary Results from the OneScope-II Study: A Randomized Controlled Single-Center Trial Comparing Single-Use and Reusable Gastroscopes in Patients with Clinical Signs of Upper Gastrointestinal Bleeding

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Aims The use of disposable equipment and accessories in gastrointestinal endoscopy has increased significantly over the past decade. The first single-use gastroscope (Ambu aScope Gastro) was approved for clinical use in April 2022. A possible niche could be its use in emergency procedures, however the diagnostic and therapeutic performance remains unclear. We aimed to compare single-use to reusable gastroscopes in patients presenting with clinical stigmata of upper gastrointestinal bleeding.

Methods The OneScope-II trial is an ongoing, prospective, randomized controlled single-center interventional study. Patients recruited between March and November 2023 were included in this interim analysis. The primary outcome was defined as reaching the descending duodenum and the adequate assessment for the presence of a bleeding site. The secondary outcome included successful hemostasis at index endoscopy.

Results Results: 92 patients (58 male/34 female) with a mean age of 69.5 (SD = 16,04) years were included. The average Glasgow-Blatchford-score was 11.9 (min. 2; max. 21; SD = 4,09). 51 % (47/92) of procedures were performed with a single-use gastroscope; 49 % (45/92) were done with a reusable gastrocope. The primary aim of adequate assessment for the presence of a bleeding site was achieved in 46 of 47 patients with the single-use gastroscope and in all 45 patients with the reusable gastrocope (97,9 % vs. 100 %; p = 1.00). In 46 patients (50 %), an endoscopic intervention of the bleeding site was indicated. Successful hemostasis was achieved in 100 % (24/24) of patients in the reusable group, and in 86 % (19/22, p = 0.101) of the single-use interventions. The three unsucessful interventions were all performed in the duodenal bulb.

Conclusions The interim analysis demonstrated an adequate diagnostic and therapeutic performance of single-use gastroscopes in patients presenting with clinical signs of bleeding. Single-use endoscopes might be inferior in a prone position at the duodenal bulb for endoscopic intervention. In the final analysis, follow up data, statistical analysis and further secondary endpoints will be reported.

Conflicts of interest CR, AE, HM report unpaid and paid consulting from Ambu, Boston scientific and Olympus

OP169 Recycling potential of gastrointestinal endoscopy in German hospitals and offices – a multicentre prospective study

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DOI 10.1055/s-0044-1782870

Aims Waste is a relevant contributor of environmental pollution, as besides the direct consequences of landscape and water pollution, large amounts of greenhouse gases are also produced during incineration.The aim of the present study was to obtain a picture of the amount of waste generated and its composition during endoscopic examinations in order to be able to calculate the recycling potential for Germany's gastrointestinal endoscopy landscape.To the best of our knowledge, this is the first study worldwide to look at the amount of waste generated in the office-based sector.

Methods Over a period of four weeks each, the collection and systematic recording of waste in the endoscopy units was carried out at four centres [Klinikum der Goethe-Universität Frankfurt (KGU), Klinikum Hanau (KSH), Internistische Praxisgemeinschaft Hanau (IPG), Magen-Darm-Zentrum Darmstadt (MDZ)]. After the collection, the waste was classified into the individual components residual waste, assecories (forceps, snares, and so on), personal protective equipment (gloves, disposable gowns, mouth protection), plastics and paper. If the last mentioned had patient contact or were contaminated by patient secretions, they were assigned to the residual waste category. The collected waste was then weighed. Waste from the recovery room and the reprocessing room was also recorded. Waste from the staff break rooms was not included in the analysis. [1]

Results In the present study, a total of 2359 examinations were carried out (outpatient offices: 1485; hospitals: 874). In the four weeks, a total amount of waste of 2.70 tons was generated. On average, 1.15 kg of waste was generated per examination (hospitals: 1.23 kg; outpatient offices: 1.10 kg). The amount of waste consisted of 800.0 g residual waste (69.9 %), 52.4 g accessories (4.6 %), 91.4 g personal protective equipment (8.0 %), 114.3 g plastic (10.0 %) and 85.0 g paper (7.5 %).

riod, the amount of reusable waste in the four endoscopy units would be 6.1 tons per year.

Conclusions To the best of our knowledge, this is the first study worldwide dedicated to the amount of waste generated in the office-based sector. At 1.15 kg, the amount of waste generated per examination in German endoscopy units is more than half as few as in the only fully published study from the USA to date, at 2.4 kg.[1]

Although the recycling potential per examination is low at 10 % plastic and 7.5 % paper, it can make a relevant contribution to reducing the amount of residual waste. In the study period, the amount of reusable waste in the four endoscopy units would be 6.1 tons per year.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP170 Gastroscopy yield in the young: Comprehensive assessment of endoscopic and histologic findings. A comparative study

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DOI 10.1055/s-0044-1782871

Aims The escalating utilization of gastroscopy in young individuals necessitates an in-depth examination of its diagnostic yield and outcomes in this population. This study aims to investigate and compare various aspects of gastroscopy between young and older adults, shedding light on age-related differences in indications, endoscopic findings, histologic outcomes, and clinically significant findings (CSFs).

Methods A retrospective, large cohort study spanning five years, focused on consecutive patients undergoing gastroscopy. We analyzed age subgroups, specifically categorizing patients into those aged 30 and below, 30-39, 40-49, and a control group aged 50 and above. The investigation aimed to compare various aspects of gastroscopy outcomes among these distinct age categories. Indication-based analyses were conducted to assess the yield and outcomes in these subgroups, focusing on CSFs and the number needed to investigate (NNTI).

Results A total of 1313 young patients aged 16-49 and 3396 controls aged 50 and above were included. Among the young patients, unspecified epigastric pain and dyspepsia emerged as a prevalent indication, accounting for 41.5 % of cases. Endoscopic findings revealed a significantly higher diagnosis rate of gastritis compared to controls (48.2 % vs. 35.7 %, $p < 0.001$). Histologic analysis demonstrated a substantially elevated rate of H. Pylori-associated gastritis in the young (41.1 % vs. 29 %, $p < 0.001$). Notably, although significantly lower than older controls, precancerous lesions were detected in 7.5 % of young patients. CSFs diagnosis rate displayed a clear age-dependent increase. Particularly, gastroscopy for upper gastrointestinal bleeding and iron deficiency anemia were associated with higher CSF rates across all young-age subgroups. In multivariate analysis, age and indications of upper gastrointestinal bleeding and iron deficiency anemia were predictors of CSFs detection in young patients.

Conclusions This study comprehensively delineates various facets of gastroscopy in the young population, elucidating age and indication-specific patterns in endoscopic and histologic findings, and clinically significant outcomes

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP171 Prevalence of Carbapenemase-producing organisms (CPO) colonization before and after endoscopic retrograde cholangiopancreatography (ERCP)

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DOI 10.1055/s-0044-1782872

Aims Carbapenemase-producing organisms (CPO) represent a major public health problem worldwide [1]. During the last two decades, risk of transmission of CPO from contaminated duodenoscopes has been widely described and is now considered a well-known threat [2, 3]. However, data on infection rates are limited to case series and confined to the setting of infection outbreaks. Disposable duodenoscopes seem to be promising tools to control infection spread, but cost-effectiveness has to be evaluated [4, 5]. To date, data on universal screening for multidrug-resistant microorganisms of patients referring to the Endoscopy service are extremely scant. Aim of this study was to evaluate the overall incidence of CPO colonization after endoscopic retrograde cholangiopancreatography (ERCP) outside the outbreak setting.

Methods Single-Centre, prospective, observational study. All consecutive patients undergoing ERCP at our Endoscopy Service were evaluated for enrollment. Patients with known colonization by CPO were excluded. All enrolled patients, underwent rapid rectal swab for KPC genes approximately 2-24 hours before the endoscopic procedure. Xpert Carba-R rapid detection swabs (Cepheid, Sunnyvale, California, USA). All patients who tested positive for the first rectal swab were excluded from the study and the final analysis. Each patient underwent ERCP as part of the routine clinical practice. At 72 hours, patients underwent a second rapid rectal swab for CPO (Xper-Carba-R).

Results From July 2022 to 15th November 2023 510 patients referring to the Endoscopy Unit for ERCP were screened. Of these, 22 patients (4,3 %) resulted positive for CRE and, for that reason, did not underwent post-procedural rectal swab. Of these, 20 (91 %) patients had a history of hospital instay and 17 (77 %) of pancreatobiliary endoscopy during the former three years.

The other 488 patients, who were negative at pre-procedural swab, underwent ERCP as part of their therapeutic plan after discharge, 160 refuse to undergo post-procedural rectal swab or were lost to follow-up. Of the remnant 328 patients, who underwent post-procedural swab, 8 (2,4 %) had a rectal colonization from CPO.

Conclusions Duodenoscope-related infections from carbapenemase-producing organisms are an open issue, though the burden of this problem is still underestimated. Routine screening with anal swabs could provide a better estimation of endoscopy-related infections' burden, early recognition of infection outbreaks and identification of high risk cases in order to drive proper resource allocation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP172 New automated drying method reduces residual fluid in endoscope channels and operational time in a monocentric randomized controlled trial

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DOI 10.1055/s-0044-1782873

Aims International guidelines currently allow different ways of drying endoscopes in the context of reprocessing in the absence of sufficient literature. The aim of the present trial was to compare a new dedicated drying device (PlasmaTyphoon + , PT) with the drying programme of a washer-disinfector for endoscopes (EWD).

Methods Endoscopes were randomised into two groups after patient use and guideline-compliant reprocessing, specifically to evaluate the drying step of the complex reprocessing, drying and storage process. Duodenoscopes, gastroscopes, colonoscopes, bronchoscopes, EBUS and EUS devices from three companies were included.
In the EWD group, reprocessing was done automatically with laminar constant compressed medical air for about 15 minutes. In the PT group, after an unavoidable drying in the EWD for two and a half minutes, drying was done using laminar and turbulent airflow for an additional two and a half minutes.
After automatic drying, endoscope channels were dried manually via an adapter to determine the weight of the residual fluid using a laboratory scale.
The endoscopes were then stored hanging for at least three days. This was followed by microbiological cultivation. Endpoints of the study were microbiological contamination of the endoscope channels, residual fluid after drying and operational time.

Results 230 endoscopes were included in this interim evaluation. After exclusion of one colonoscope due to early reuse, 229 endoscopes were included in the evaluation (PT: 219; EWD: . 210).
PT (29, 24 %) and EWD (26, 23 %) had no significant difference in microbiological contamination (p = 0.9; OR: 1.04 (95 %-CI: 0.6-1.9). All bacteria detected were skin and environmental low-concerning bacteria and below a clinically relevant threshold of 20 colony forming units.
Both residual fluid in endoscope channels (PT: 5 (4 %); 0.2 g ± 0.1 g vs EWD: 92 (86 %); 1.1 g ± 1.2 g) and operational time (PT: 05:57 min ± 17 sec vs EWD; 16:06 min ± 25 sec) were significantly different favoring PT (all p < 0.001).

Conclusions A dedicated drying device (PlasmaTyphoon +) was equal to the drying programme of an EWD in terms of contamination rate in clinical practice after storage of the endoscopes for three days. However, the automated drying step was optimised with a reduction of detectable residual fluid in the endoscope channels below 5 % and an operational time reduction of 64 %. These results could improve the quality of reprocessing and relieve staff.

Conflicts of interest The trial was supported by a grant of Pentax Medical (Hamburg, Germany). Dr. F. A. Michael recieved speaker fees by the same company.

Diagnosis and therapy in the esophagus: What's new?

26/04/2024, 14:00 – 15:00 **Room 8**

OP179 Feasibility, safety, and outcomes of UGI endoscopic submucosal dissection from UK ESD Registry: The largest multicentre prospective study on Western population

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Aims The outcome of ESD in early gastrointestinal neoplasia in Japan is well established whereas in the west, it is variable depending on the volume and experience. Therefore, a multicentre national registry was set up in the UK to prospectively evaluate the practice and outcomes of ESD.

Methods This is a prospective observational study for patients undergoing ESD for early GI neoplasia. All technical and outcoms data was prospectively collected onto REDCap.

Results There were 451 UGI ESD cases recruited between August 2016 to August 2023 from 6 large tertiary referral centres in the UK. Mean age of the patients was 70.8 years (range: 24-94 years) with male preponderance (318 males vs. 133 females). Majority were in oesophagus: 282 (62.53 %), stomach: 159 (35.25 %) and duodenum: 10 (2.22 %).
Of 282 oesophageal ESDs, 277 (98.23 %) were technically successful with en-bloc resection rate of 96 %. There were 3 intraprocedural complications (2 oesophageal perforations and 1 oral laceration from overtube). All of them were managed endoscopically. There were 29 (10.28 %) post ESD strictures requiring endoscopic dilatations. 3 (1.06 %) delayed bleeding were noted and 3 were readmitted for decompensation of underlying co-morbidities.
There were 204/282 (72.34 %) Barrett's cases with average length of C2.9 M4.9. 34 cases (16.67 %) had previous ESD or ablation at the same site. Post ESD resection showed deep SM invasion in 21 patients (deep R0 achieved in 42.9 % and lateral R0 in 76.2 %), 23 pT1bSM1 (deep R0 in 87.0 % and lateral R0 in 87 %), 107 pT1a (deep R0 in 89.7 % and lateral R0 in 85.1 %), 31 HGD (R0 in 97 %) and 9 LGD (R0 in 78 %).
There were 44 SCC, 26 gastro-oesophageal junctional neoplasia and 8 others (submucosal lesion and granular cell tumours). Of 44 SCC, there were 8 pT1b (5 achieved deep R0, 7 achieved lateral R0), 10 pT1a (all achieved both deep and lateral R0), 22 HGD (81.8 % achieved R0), 3 LGD (all achieved R0).
There were 160 gastric ESDs with completion rate of 96.25 % and en-bloc rate of 95.5 %. There were 8 (5 %) intra-procedural perforation which required endoscopic clippings. There were 7 (4.36 %) delayed bleeds which were managed endoscopically. Of 160 cases, 138 were epithelial neoplasia, 11 were submucosal lesions while 4 were large hyperplastic polyps. Of 138 epithelial neoplasia, 10 had deep SM invasion (7 achieved deep R0, 8 lateral R0), 14 pT1bSM1 (7

achieved deep R0, 10 lateral R0), 50 pT1a (90 % achieved deep R0, 80 % lateral R0), 35 HGD (94.3 % R0) and 27 LGD (77.8 % R0).

Conclusions Unlike in the East, most ESDs in our study were performed in the oesophagus rather than the stomach. Our data demonstrates the feasibility and safety of UGI ESD in Western setting with very low complication rates without requiring surgical intervention. We found that deep submucosal invasion is a strong predictor of poor R0 rate.

Conflicts of interest None

OP180 Comparative study of treatment outcomes between ESD and TOVS (transoral videolaryngoscopic surgery)for superficial epithelial pharyngeal tumors

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DOI 10.1055/s-0044-1782875

Aims Recently, endoscopic dissection (ESD) and transoral videolaryngoscopic surgery (TOVS) have become widely used as minimally invasive treatment for pharyngeal cancer in Japan. ESD in the pharynx is performed by a gastroenterologist under general anesthesia using a folding laryngoscope to expand the larynx. TOVS is a technique that has developed uniquely in Japan, in which an otolaryngologist performs tumor resection orally using a rigid endoscope,straight forceps and electrocautery.There have been no reports comparing the outcomes of ESD and TOVS. In this study, we compared the outcomes of patients who underwent ESD and those who underwent TOVS for superficial pharyngeal lesions.

Methods We reviewed 47 cases of superficial pharyngeal carcinoma treated with ESD or TOVS from 2013 to 2022 at our institution. We did not include cases treated with iatrogenic multiple treatments, recurrent treatments, or preoperative CRT.

Results There were 21 cases of ESD and 26 cases of TOVS. The median age was 68(61-72) years for ESD and 68(63-75) years for TOVS. The site of tumor was hypopharynx/oropharynx ESD: 30/15, TOVS: 15/11 (p = 0.006), significantly more cases in the ESD group were in the hypopharynx. The median resection time was 71 (50-103.5) min for ESD and 82 (43.3-147.8) min for TOVS, and the depth of tumor was 6/15 (EP/SEP) for ESD and 12/14 (TOVS) for TOVS, and the median tumor diameter was 23 (15-36) mm for ESD and 16.5 (9-21.5) mm for TOVS. Tumor diameter was significantly larger in the ESD group. The positive rate of horizontal margin was 23.8 % (5/21) for ESD and 53.8 % (14/26) for TOVS. The R0 resection rate was 71.4 % (15/21) for ESD and 38.5 % (10/26) for TOVS, and the R0 resection rate was significantly higher for ESD. (p = 0.024). (p = 0.024)

Postoperative recurrence was 4.8 % (1/21) for ESD and 26.9 % (7/26) for TOVS. The 5year-cumulative recurrence rate was significantly higher in the TOVS than in the ESD (TOVS vs ESD = 40.1 % vs 10 %, p = 0.040). The 5year-disease specific survival(DSS) was not significantly different between TOVS and ESD.(TOVS vs ESD = 86.1 % vs 100 %, p = 0.277)

Conclusions ESD has a higher R0 resection rate and fewer recurrences than TOVS in the treatment of superficial pharyngeal carcinoma.ESD seems to have a high R0 resection rate because of its reliable range diagnosis using endoscopic magnification and image enhancement.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP181 The utility of endoscopic pressure study integrated system (EPSIS) as an adjunctive metric for GERD Diagnosis: A Japanese multicenter prospective study

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Aims Functional endoscopy, integrating motor function assessments into routine endoscopic examinations, significantly advances gastrointestinal diagnostics. The novel functional testing tool, the Endoscopic Pressure Study Integrated System (EPSIS), offers a unique approach to evaluating the anti-reflux barrier. It achieves this by monitoring and recording intragastric pressure (IGP) during gastric insufflation in upper endoscopy, functioning as a stress test to assess the lower esophageal sphincter's (LES) functionality. This study explored the association between IGP and pH-impedance monitoring, specifically focusing on characterizing the IGP waveform.

Methods This multicenter prospective cohort study was conducted at Japanese academic hospitals between June 2020 and October 2023 that enrolled patients undergoing upper endoscopy, pH-impedance monitoring, and EPSIS. The primary objective was to evaluate the association between EPSIS and acid reflux parameters. The intragastric pressure waveform was characterized by assessing the gradient (mmHg/s), calculated as the pressure difference divided by the insufflation time. Abnormal acid reflux was defined as acid exposure time (AET) > 6 %, and pathological reflux was defined as total reflux episodes > 80/day based on the Lyon Consensus.

Results Analysis of 174 subjects from six centers revealed that 48 patients (25.8 %) tested positive for abnormal acid reflux, while 28 patients (17.0 %) exhibited pathological reflux. Patients with abnormal AET and pathological reflux demonstrated lower pressure gradients (0.18 mmHg/s vs. 0.23 mmHg/s, P = 0.015, and 0.17 mmHg/s vs. 0.24 mmHg/s, P = 0.0097, respectively). In multivariate analysis, the pressure gradient of the IGP waveform and the presence of erosive esophagitis remained significant predictors of abnormal acid reflux (adjusted odds ratio [aOR] per 0.01 unit = 0.97, 95 % CI 0.93-0.99, and aOR = 2.33, 95 % CI 1.05-5.20, respectively). In addition, the pressure gradient of the IGP waveform was the strongest predictors of pathological reflux (aOR per 0.01 unit = 0.95, 95 % CI 0.90-0.99).

Conclusions This study highlights the potential of the pressure gradient measured by EPSIS during endoscopic assessment as an adjunctive metric for consolidating GERD diagnosis [1–3].

Conflicts of interest Inoue H is an advisor for Olympus Corporation and Top Corporation. He has also received educational grants from Olympus Corporation and Takeda Pharmaceutical Co.

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OP182 Clinical efficacy and safety of endoscopic dilatation with EsoFLIP in benign esophageal strictures: preliminary results of a prospective study

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DOI 10.1055/s-0044-1782877

Aims The aim of our prospective study is to evaluate clinical and technical success and safety of endoscopic dilation with EsoFLIP in patients affected by benign esophageal strictures. NCT05725473. EsoFLIP is a novel dilation balloon that utilizes high-resolution impedance planimetry to provide real-time, objective visualization and monitoring of dilation.

Methods Patients with symptomatic esophageal strictures, with exception of patients affected by motor disorders, were selected and endoscopic dilatations were performed with EsoFLIP (8-20 mm dilation range). Clinical condition was evaluated before and after procedure (one week and one month) using a specific questionnaire about severity and frequency of dysphagia (Brief Esophageal Dysphagia Questionnaire-BEDQ 10 items from 0 to 6). We also quantified rate of technical success, adverse events, total procedure time and fluoroscopy exposure time. We utilized EndoFLIP (impedance planimetry system) to evaluate stricture diameter (mm), cross-sectional area (CSA mm2), distensibility index (DI mm2/mmHg) before and after dilatation with EsoFLIP.

Results We enrolled 10 patients affected by esophageal strictures due to lymphocytic (2) and eosinophilic esophagitis (1), caustic ingestion (1), Schatzki rings secondary to GERD (3) and esophageal-gastric anastomosis (3). Strictures involved proximal-medial esophagus (18-30 cm from incisors) in 4 patients out of 10 and in 6 out of 10 patients medial-distal esophagus (30-42 cm). All dilation procedures were technically successful, and no adverse events occurred. The median procedure time was 41,2 min (± 14.45) and fluoroscopy exposure time was 5,44 min (± 1.23; 13,2 % of procedure). After 1 week and 1 month from the dilatation there was a significant decrease of dysphagia severity and frequency shown by BEDQ total score (pre-BEDQ 12.10 ± 7.85 vs 1 week-post-BEDQ 5.40 ± 4.48, p-value 0.0308; pre-BEDQ 12.10 ± 7.85 vs 1 month-post-BEDQ 3.40 ± 4.38, p-value 0.0067). After procedure, there was a significant increase of stricture diameter (pre-diameter 8.75 ± 2.78 vs post-diameter 12.4 ± 2.57 mm, p value = 0.007) and distensibility index (pre-DI 2.0730 ± 1.8521 vs post-DI 4.0380 ± 2.1404 mm2/mmHg, p value = 0.0415); a not statistically significant increase in cross-sectional area was reported (post-CSA 119.56 ± 42.59 vs pre-CSA 81.56 ± 44.62 mm2, p value = 0.0832).

Conclusions Our preliminary data showed that endoscopic dilatation of benign esophageal strictures with EsoFLIP is clinically effective and safe. EsoFLIP is a promising dilation technology that may yield a larger diameter change and may potentially reduce fluoroscopy time exposure when compared to traditional endoscopic dilation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP183 Endoscopic negative pressure therapy for treatment of Boerhaave's syndrome: a retrospective multicenter analysis

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DOI 10.1055/s-0044-1782878

Aims Boerhaave's syndrome is an effort rupture of the esophagus typically caused by heavy vomiting. Mortality without treatment is as high as 90 % and even in patients treated with surgery mortality rate is approximately 20 %. Endoscopic negative pressure therapy (ENPT) or endoscopic vacuum therapy is successfully used to treat anastomotic leakage after esophageal surgery. Goal of this study was to evaluate ENPT for treatment of Boerhaave's syndrome.

Methods We conducted a retrospective analysis at the following five centers in Baden-Württemberg, a state in southwestern Germany: Ludwigsburg, Mannheim, Heidelberg, Ulm, Tübingen. Patients treated at each center with esophageal perforation between January 2010 and July 2023 were screened for inclusion. All patients with spontaneous esophageal perforation (i.e. Boerhaave's syndrome) who were treated with ENPT were included.

Results Fifty-six cases with Boerhaave's syndrome were identified, of which 33 were treated with ENPT. ENPT was performed as primary treatment in 25 cases. Median age was 69 years (range: 25 – 90) and eight were female (32.0 %). Median ASA score at admission to the study centers was three and median qSOFA score was one. Primary treatment with ENPT was successful in 21 patients (84.0 %). Three cases were switched to surgical treatment and one case to esophageal stenting. ENPT was done using a sponge-based device in 23 cases and an open-pore film-based device in two cases. Overall, 23 cases primarily treated with EPNT were discharged alive, while only two patients (8.0 %) died in hospital. There were eight cases in which ENPT was performed as secondary treatment. These cases were primarily treated with surgery (n = 2), endoscopic stenting (n = 4), or with conservative treatment (n = 2). Switching to EPNT, resulted in successful treatment and discharge of the patient in six cases, while two patients died in hospital.

Rates of treatment success and mortality for primary EPT were 75.0 % and 8.3 %, respectively. Rates in patients not primarily treatet with ENPT were 42.4 % for treatment success (P = 0.0.14) and 24.2 % for mortality (P = 0.166). ENPT was identified as significant predictor of treatment success in multivariate analysis.

Conclusions ENPT is a promising treatment of Boerhaave's syndrome. It shows a high success rate for primary and secondary treatment. Primary treatment with ENPT was associated with significantly higher treatment success compared to non-ENPT and had a mortality rate < 10 %.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP184 Outcomes of Anastomotic Leakage after Esophagectomy Before and After implementation of Endoscopic Vacuum Therapy in a Tertiary Referral Center

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DOI 10.1055/s-0044-1782879

Aims Anastomotic leakage (AL) after esophagectomy is associated with severe morbidity and a high mortality [1, 2]. Endoscopic vacuum therapy (EVT) has recently been established as a promising endoscopic treatment option for AL, with success rates of higher than 80 % [3, 4]. The aim of this study was to compare outcomes of AL after esophagectomy, before and after implementation of EVT.

Methods For this cohort study, consecutive patients with AL after transthoracic esophagectomy with gastric conduit reconstruction with cervical or thoracic anastomosis from two different time periods (before the implementation phase of EVT [2013 – 2017, pre-EVT], and after the implementation phase of EVT [2020 – 2023, post-EVT]) were included. Data was collected from a prospectively maintained database. Outcome measures included initial treatment

modality, re-operation, ICU (intensive care unit) admission, hospital stay, and complications, classified according to Clavien-Dindo.

Results In total, 100 patients with AL were included, with 50 patients in the pre-EVT group and 50 patients in the post-EVT group. In the pre-EVT group, initial treatment of AL consisted of conservative therapy (n = 20, 40 %), endoscopic stenting (n = 13, 26 %), endoscopic drainage (n = 6, 12 %) or surgery (n = 11, 22 %). In the post-EVT group, initial treatment of AL consisted of conservative therapy (n = 5, 10 %), surgery (n = 2, 4 %) or EVT (n = 43, 86 %). Baseline characteristics showed no differences. The post-EVT group had a significantly lower initial surgical treatment rate compared to the pre-EVT group (respectively 2 [4 %] vs. 11 [22 %], p = 0.03). Furthermore, the post-EVT group had a significantly lower ICU admission rate than the pre-EVT group (respectively 16 [32 %] vs. 35 [70 %], p < 0.001). Clavien-Dindo classification differed significantly between the two groups (p = 0.033), with less Grade IIIa and more Grade IVa in the pre-EVT group, compared to the post-EVT group. Reoperations occurred in 17 patients (34 %) in the pre-EVT group and 9 (18 %) in the post-EVT group, which was not statistically significant. No statistically significant difference was observed in length of hospital stay.

Conclusions The implementation of EVT as treatment option for AL after esophagectomy in this tertiary referral center led to a lower ICU admission rate. Taking this into consideration, EVT may be associated with long term health benefits for the patient and reduced healthcare costs.

Conflicts of interest R.E. Pouw is a consultant for MicroTech Europe

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New endoscopic approaches for gallbladder diseases

26/04/2024, 14:00 – 15:00 **Room 11**

OP173 Two-year outcomes of endoscopic transpapillary gallbladder stenting versus EUS-guided transmural gallbladder drainage in high-surgical risk patients with acute calculous cholecystitis: a randomized trial

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Aims Endoscopic transpapillary gallbladder stenting (ETGS) and endoscopic ultrasound-guided transmural stenting (EUGS) can be performed as an alternative gallbladder drainage in high-surgical risk patients with acute calculous cholecystitis (AC). However, the durability of these two endoscopic treatments has not been compared.

Methods During 2021-2023, high-surgical risk patients with AC (Charlson Comorbidity Index ≥ 6) were randomized into group A (received ETGS) and group B (received EUGS). A 7-Fr/15-cm double-pigtail plastic stent (DPS) was used for ETGS. A 10 or 15 or 16-mm lumen-apposing metal stent (LAMS) or a 10x60 mm fully covered self-expandable metal stent with a 7-Fr/5-cm DPS for metallic stent anchoring (FCSEMS-DPS) were used for EUGS.

Results A total of 55 eligible patients were randomized into group A (n = 29) vs group B (n = 26). Group A had a significantly lower technical success rate (TSR) than group B [24/29 (82.8 %) vs. 26/26 (100 %); p = 0.03] with similar clinical success rate (CSR) [24/24 (100 %) vs. 26/26 (100 %)]. ETGS was not achieved in 5 patients due to an acute angle of the cystic duct (n = 3) and cystic duct stone obstructing a guidewire traversing into the gallbladder (n = 2). Of 5 patients with ETGS failure, two patients continued antibiotic treatment, 3 patients achieved subsequent EUGS. Procedure-related adverse events (PAE) rates did not differ between groups A and B including mild pancreatitis (3.4 % vs. 0 %; p = 0.34), mild abdominal pain (6.9 % vs. 15.4 %; p = 0.31), post-procedural bleeding (0 % vs. 3.8 %; p = 0.29) and early stent migration (0 % vs. 3.8 %; p = 0.29). In group A, 3 patients developed recurrence after 9 months (day 280, 285, and 436) due to stent occlusion and had ETGS stent replacement. In group B, 1 patient had FCSEMS-DPS migration seen on routine plain film at 2 weeks and had early recurrence at day 71 with subsequent LAMS replacement. Death occurred in 8 (27.6 %) and 10 (38.5 %) patients in groups A and B with a median time to death of 61.5 (range 8–896) and 87 (range 8–432) days, respectively, and was unrelated to gallstone. On an intention-to-treat basis, at 1 year and during 1-2 years, the rate of recurrent AC in those who survived did not differ between groups A and B [9.1 % (2/22) vs. 5.6 % (1/18); p = 0.67 and 5 % (1/20) vs 0 % (0/16); p = 0.36, respectively]. Kaplan-Meier analysis revealed a comparable overall rate of recurrence between the two groups (p = 0.44) during a median follow-up of 373.5 (range 8-1021) days.

Conclusions In high-surgical risk patients with AC, EUGS provided a significantly higher TSR than ETGS, with comparable CSR and PAEs. During a 2-year follow-up, the rates of recurrent AC in the ETGS and EUGS groups were comparable, with stent occlusion accounting for the major cause of recurrence in the ETGS group after 9 months. In the EUGS group, LAMS is preferred to prevent early stent migration.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP174 Randomized clinical trial comparing ERCP vs ERCP plus EUS-guided gallbladder drainage in non-surgical patients with symptomatic choledocholitiasis: mid-term analysis

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DOI 10.1055/s-0044-1782881

Aims ERCP remains the primary approach tocholedocolithiasis. 30 % of patients who undergo clearance of choledocholitiasis by ERCP without subsequent cholecystectomy will suffer recurrent biliary events. We hypothesized that EUS-guided gallbladder drainage (EUS-GBD) performed in the same endoscopic procedure could significantly decrease this risk.

Methods Multicenter randomized clinical trial(NCT03921502). Subjects > 75 y-o, Charlson comorbidity index(CCI) ≥ 4 and symptomatic choledocholithiasis

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scheduled for ERCP were eligible. Concurrent acute cholecystitis, altered upper GI anatomy, lack of EUS window, potential surgical candidacy and failed ERCP were exclusion criteria. Subjects were randomized to ERCP vs ERCP + EUS-GBD. A 1-year follow-up was scheduled. The primary outcome was hospital readmission due to gallstone-related disease or procedure-related adverse events. Overall survival, all cause admissions, adverse events and quality of life were also evaluated. Kaplan-Meier curves and log-rank tests assessed the primary and main secondary outcomes.

Results A total of 74 patients have been included, 37 subjects in each group, (49.3 % of estimated sample size). Baseline characteristics were balanced between cohorts. Overall, median age was 89.5 (IQR: 85.6-91.7) years, 49 (66.2 %) were female, median CCI was 6 (IQR: 4-7), 27 (3.5 %) had a history of gallstone disease (8 had undergone an ERCP previously) and fifty (67.6 %) patients presented acute cholangitis at admission. Sphincterotomy was performed in all ERCP patients and in 35 (94.6 %) of ERCP-EUS-GBD[MPM1] patients. EUS-GBD was performed using 10x10mm (25 patients, 67.6 %) and 15x10mm (12 patients, 32.4 %) LAMS. The duodenum was the point of access in 21 (56.8 %) subjects, the stomach in the remaining 16 (43.2 %). The median hospital stay after the procedure was 3 days in both groups.The 1-year readmission risk was higher in the ERCP (27.5 % [95 % CI: 14.3-48.9 %]) than in the ERCP + EUS-GBD group (5.7 % [1.5-20.8 %]), p = 0.05. In the ERCP-EUS-GBD group 2 (5.4 %) patients were readmitted due to moderately severe sphincterotomy related bleedings. In the ERCP group 8 (21.6 %) patients were readmitted; 3 presented acute cholecystitis, 3 developed acute cholangitis and 2 patients underwent scheduled cholecystectomy due to ongoing biliary pain No differences were observed in the 1-year mortality (12.6 % [4.9-30.3 %] in the ERCP group vs 23.1 % [11-44.5 %] in the ERCP + EUS-GBD, p = 0.61) or the 1-year all-cause admission risk, ERCP: 33.5 % (19.1-54.4 %) ERCP + EUS-GBD: 36.3 % (22.9-54.2 %), p = 0.40, although the ERCP + EUS-GBD presented a numerically higher number of admissions during the first 3 months. Adverse events rates were comparable, 13.5 % in the ERCP group and 16.2 % in the ERCP + EUS-GBD group. No differences in the quality of life were observed.

Conclusions In non-surgical patients with symptomatic choledocholithiasis, performing EUS-GBD in the same endoscopic procedure as the ERCP reduces the risk of subsequent gallstone related admissions, without an increased risk of adverse events or a longer hospital admission. [1–3]

Conflicts of interest Manuel Perez-Miranda, MD, PhD; Consultant and Speaker: Boston-Scientific, MITech, Olympus, Medtronic, Lumendi.

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OP175 Elective endoscopic gallbladder treatment for benign diseases in patients at high surgical risk and an indication to perform cholecystectomy: a prospective multicenter study

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Aims EUS-guided gallbladder drainage (EUS-GBD) is the procedure of choice to treat patients with acute cholecystitis (AC) at high surgical risk.), We have recently shown in a retrospective multicenter study that elective endoscopic gallbladder treatment (EEGBT) is safe and effective in patients with benign gallbladder diseases at high surgical risk. We aimed to prospectively assess safety and efficacy of EEGBT in a large cohort of patients with benign gallbladder diseases at high surgical risk and an indication to perform cholecystectomy.

Methods We prospectively enrolled consecutive patients with benign gallbladder disease in whom an indication to perform cholecystectomy had been made who underwent EEGBT in nine tertiary care centers between April 2022 and November 2023. EEGBT consist first of lumen apposing metal stent (LAMS) placement, followed by gallstone lithotripsy when needed. Primary outcomes were technical and clinical success rate, and adverse events (AEs) rate. Secondary outcomes included recurrent biliary events, defined as the occurrence of biliary colic, cholangitis, choledocolithiasis or acute biliary pancreatitis during follow-up.

Results Overall, 50 patients were enrolled in the study period. Mean age was 82 + 9 years, male/female ratio 31/19, with an ASA score of III (33/50, 66 %) or IV (17/50, 34 %). The most frequent indication to perform EEGBT was mild recurrent acute cholecystitis (34/50, 68 %), followed by biliary colic (9/50, 18 %), acute biliary pancreatitis (6/50, 12 %) and previous cholangitis (1/50, 2 %). EUS-guided LAMS implantation was achieved more frequently from the duodenum (27/50, 54 %), and the Hot-Axios was the preferred utilized stent (48/50, 96 %). As for stent size, 10x10mm, 15x10mm, 16x20mm, 8x8 mm and 6x8 mm were placed in 52 %, 38 %, 4 %, 4 % and 2 % of cases, respectively. Coaxial double pig-tails plastic stent (DPPS) placement at the end of the procedure was done in 24 % (12/50) of cases. Technical and clinical success were achieved in 94 % and 94 % of patients, respectively. Intra-procedural AEs occurred in 3/50 (6 %), (two distal flange LAMS misdeployments and one duodenal perforation contralateral to where the stent was placed). Post-procedural AEs occurred in 4/50 (8 %) of cases (one buried LAMS after 2 months which required surgery, and 3 acute cholecystitis due to stent obstruction). Recurrent biliary events were 3 choledocolithiasis (6 %). Mean follow up was 6 ± 3 months. Overall, there were no EEGBT-related deaths.

Conclusions This study represents the first multicenter prospective study on EEGBT in patients with benign gallbladder disease at high surgical risk and an indication to perform cholecystectomy and strongly suggest this treatment to be safe and clinically effective. With the aging of the population, the number of patients with multiple comorbidities and gallstones that will require treatment will exponentially increase and EEGBT will play an important role in those at high surgical risk.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP176 Conversion of percutaneous cholecystostomy (PC) to endoscopic ultrasound-guided gallbladder drainage (EUS-GBD) vs conservative management after acute calculous cholecystitis (ACC) in non-surgical patients

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Aims In nonsurgical patients with ACC, PC is an effective therapeutic option. After removal of PC catheters, however, the recurrence rate of biliopancreatic

events (BPE) is up to 40-50 % overall, and 25 % after ACC. Routine internalization of PC by conversion to EUS-GBD could become a definitive treatment strategy in this setting.

Aims: To assess the proportion of new onset BPE in patients with ACC initially managed with PC comparing patients who underwent elective EUS-GBD internalization versus those who received standard non-endoscopic management. To analyze the technical success of EUS-GBD, complications and overall mortality between both groups.

Methods Multicenter retrospective cohort study of patients with ACC who initially underwent PC, with subsequent EUS-GBD (n = 47) and patients with ACC who underwent PC without subsequent EUS-GBD (n = 116), between January 2015-December 2022 at 6 tertiary referral institutions. Continuous variables were described with mean and standard deviation or median and interquartile range as warranted, while categorical variables were summarized as percentages. The difference between both groups confidence interval was also estimated.

Results There were no baseline differences across groups regarding age (median [IQR] 82.5 [11.6] years) or sex distribution (52.7 % female), Charlson comorbidity index (mean [SD] = 4.6 [1.85]), rate of BPE prior to index ACC (30 %) or Tokyo severity grades (34.4 % I, 45.4 % II, 20.2 % III). Overall (33/116 [28.5 %] vs 6/47[12.8 %]) and first readmission (27/116 [23.3 %] vs 6/47[12.8 %]) rates due to BPE were significantly higher (p = 0.04) in the conservative management group. Overall recurrent biliopancreatic event (RBE) in the conservative management group were ACC (n = 20), acute cholangitis (n = 7), CBD stone (n = 1), acute pancreatitis (n = 3) and liver abscess (n = 2). Among these, there were 6 second readmissions (4 ACC, 2 cholangitis). Overall RBE in the EUS-GBD internalization group were ACC (n = 3), acute cholangitis (n = 1), CBD stone (n = 1), and liver abscess (n = 1). No patient in this group had a second readmission. In the EUS-GBD internalization group, technical success was obtained in 46 (97.9 %) patients. Complications 5/47 (10.6 %): 1 mild abdominal pain, 1 EUS-GBD stent obstruction, 1 digestive bleeding, 2 others; all resolved endoscopically or clinically without sequelae. The proportion of deaths in the conservative management group was 4 %, vs 6.4 % in the EUS-GBD internalization group, not significant (p = 0.58).

Conclusions In nonsurgical patients with ACC, elective EUS-GBD internalization of prior PC significantly reduces the proportion of BPE and readmissions, without increasing morbidity or mortality. Our findings warrant prospective evaluation and confirmation before this approach becomes incorporated into current management algorithms. [1–3]

Conflicts of interest M. Perez-Miranda is a consultant for Boston Scientific, Olympus, Medtronic, and M. I.Tech.

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OP177 Comparison of laparo-endoscopic rendez-vous vs. a two-step approach in cholecysto-choledocholithiasis

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Aims The treatment of gallstones consists of an endoscopic retrograde cholangiopancreatography (ERCP) to extract choledocholithiasis (CDL) and a cholecystectomy (CCE) to prevent disease recurrence. Amongst the most feared and frequent complications of performing an ERCP is a post-ERCP pancreatitis (PEP). In this study, we compared a single step CCE + ERCP via rendez-vous technique to a two-step procedure to assess the risk of PEP.The treatment of gallstones consists of an endoscopic retrograde cholangiopancreatography (ERCP) to extract choledocholithiasis (CDL) and a cholecystectomy (CCE) to prevent disease recurrence. Amongst the most feared and frequent complications of performing an ERCP is a post-ERCP pancreatitis (PEP). In this study, we compared a single step CCE + ERCP via rendez-vous technique to a two-step procedure to assess the risk of PEP.

Methods This retrospective, single-centre study analysed all patients that underwent an ERCP for perceived CDL and who received a CCE. We compared these patients with a laparo-endoscopic rendez-vous procedure (single-step), in which the ERCP was performed during the CCE using an antegrade wire cannulation by the surgeon though the cystic duct. We included all patients with CDL starting 01/2019 until 12/2022.

Results We included 229 adult patients who underwent CCE and ERCP for the treatment of cholecysto-choledocholithiasis. Of these patients, 165 underwent a routine two-step procedure, and 64 patients underwent the single-step procedure. The single-step procedure showed a high technical success rate (93.7 %). In the two-step group, 16 (9.7 %) of patients developed PEP, compared to 1 (1.8 %) in the single-step group. Performing a single-step procedure was associated with a significantly (p = 0.049) reduced post-ERCP pancreatitis risk. The single-step procedure significantly reduced the overall length of in-hospital stay (p < 0.001).

Conclusions The single-step (laparo-endoscopic rendez-vous) procedure in patients with combined cholecysto-choledocholithiasis is a safe and feasible procedure, and is associated with significantly less post-ERCP pancreatitis and a shorter in-hospital stay.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP178 Surgery versus Endoscopic therapy for Mirizzi Syndrome (SEIZE)-study: A Multicentre International Experience

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DOI 10.1055/s-0044-1782885

Aims The management of Mirizzi syndrome has been primarily surgical, ranging from cholecystectomy to en bloc resection with hepatico-jejunostomy for advanced Csendes III and IV types. The introduction of digital single-operator cholangioscopy (dSOC) allows for ductal clearance in patients with Mirizzi syndrome. Although small series have highlighted the feasibility of an endoscopic approach, there is a lack of comprehensive comparisons between surgical and endoscopic treatments. The objective of the current study is to compare the outcomes and safety of dSOC-guided lithotripsy with the surgical approach.

Methods A large multicenter international retrospective analysis was conducted on dSOC and surgical procedures in patients with type II-IV Mirizzi syndrome between January 2005 and June 2022. Patients with postsurgical anatomy, Mirizzi type I, or a history of pre-dSOC cholecystectomy were excluded. Technical success was defined as the successful and complete clearance of the duct using either dSOC or surgery. The AGREE classification was employed for adverse event (AE) grading.

Results In total, 290 patients were included, with 176 undergoing treatment with dSOC and 114 undergoing surgery. At baseline, patients undergoing dSOC were older (61.3 years [SD16.4] vs. 56.0 [SD14.8]), experienced jaundice more frequently (79.4 % vs. 61.9 %, p = 0.001), and had higher scores on the Charlson Comorbidity Index (3 [IQR 1-9] vs. 1 [0-3], p < 0.001) and ASA scores (p < 0.001). While technical success was lower in the dSOC group compared to surgery (89.2 % vs. 96.5 %, p = 0.025), the need for reinterventions and the median number of interventions were similar after a median follow-up duration of 741.5 days (IQR 320-1781) vs. 346 (IQR 67-1220) days (p = 0.009). Overall adverse events (AE) occurred less frequently in the dSOC group (10.2 % vs. 41.2 %, p < 0.001), including mild AE (4.0 % vs. 13.1 %, p = 0.008), and severe AE (1.7 % vs. 15.8 %, p < 0.001). Fatal complications occurred only in the surgical group (n = 3, p = 0.060). During follow-up, cholecystectomy was avoided in 115 out of 175 dSOC patients (65.3 %), without resulting in statistically significant differences in long-term outcomes. When comparing patients from the primary surgery group with patients in whom elective post-dSOC cholecystectomy was performed, a lower hepaticojejunostomy (HJ) rate was seen (6.6 % vs. 26.1 %, p = 0.002).

Conclusions Our study demonstrates that the use of dSOC for the removal of intraductal stones in Mirizzi syndrome is highly effective, showing superior safety despite treating patients with more underlying comorbidity. dSOC seems valuable in downgrading the extent of subsequent surgery, by potentially reducing the need for a HJ, and furthermore seems to prevent the need for subsequent cholecystectomy in two thirds of patients, especially those at increased surgical risk. Consequently, we advocate for dSOC as the primary modality in the management of Mirizzi syndrome

Conflicts of interest grants Boston scientific

Artificial intelligence: Friend or Foe?

26/04/2024, 14:00 – 15:00 **Room 10**

OP185 Evaluation of AI for the diagnosis of pancreatic cancer in linear EUS : Preliminary results of a SFED multicentre study

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Aims EUS is the gold standard to diagnose pancreatic cancer. However, the sensitivity and specificity of EUS is not optimal due to variable echogenicity from one patient to another. On the other hand, some infiltrative forms without hypoechoic mass are difficult to visualize. What's more, the operator can be taken for a ride due to a lack of experience. Finally, fatigue can sometimes lead to poor diagnosis of pancreatic tumors. The aim of our study was to evaluate the performance of AI for the diagnosis of pancreatic cancer in linear EUS.

Methods This is a collaborative project with the mathematics laboratory specializing in AI. A pilot phase, carried out with a database of around a hundred linear EUS images of pancreatic pathology, enabled us to assess the value of a Transfer Learning algorithm for diagnosing pancreatic cancer with a diagnostic performance of close to 75 %. In order to optimize the AI, a large database of linear EUS images was generated by 9 endoscopy centers in France. Patients were divided into 2 groups: group C = cancer (adenocarcinoma, endocrine tumor, metastasis) and group NC = non-cancer (normal pancreas and non-cancer pancreatic pathologies). All images were anonymized, checked and annotated. The primary endpoint was the diagnosis of pancreatic cancer confirmed by pathological findings and patient follow-up.

Results 609 patients were included, 209 in the tumor group (C) and 400 in the non-tumor group (NC). In the C group, 179 had adenocarcinoma, 26 had endocrine tumor and 4 had metastatic renal cancer. In the NC group 156 had a cystic pancreatic lesion (IPMN, mucinous or serous cystadenoma), 70 had acute biliary pancreatitis, 55 had chronic pancreatitis, 11 had autoimmune pancreatitis, 78 had normal pancreas and 30 had other pancreatic pathology. A total of 8,545 images were collected, including 2,975 in the C group and 5,520 in the NC group. The sensitivity, specificity and accuracy of AI for the diagnosis of pancreatic cancer in linear EUS were 80 %, 90 % and 86 % respectively.

Conclusions AI appears to be effective to diagnose pancreatic tumors in linear EUS

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP186 Artificial Intelligence Assisted Capsule Endoscopy Versus Conventional Endoscopy for Detection of Small Bowel Lesions – Systematic Review and Meta-analysis

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DOI 10.1055/s-0044-1782887

Aims The study aims to systematically review literature and provide a meta-analysis on the diagnostic accuracy,specificity, sensitivity, negative and positive predictive values of AI-assisted capsule endoscopy (CE) in the diagnosis of small bowel lesions in comparison to CE.

Methods Literature searches were performed through PubMed, SCOPUS, and Embasse to identify studies eligible for inclusion. All publications up to 11 October 2023 were included. Original articles (including observational studies, and randomized control trials) systematic reviews, meta-analyses, and case series reporting outcomes on AI-assisted CE in the diagnosis of small bowel lesions, were included. The extracted data were pooled, and a meta-analysis was performed for the appropriate variables, considering the clinical and methodological heterogeneity among the included studies. Comprehensive Meta-Analysis v4.0 (Biostat Inc.) was used for the analysis of the data.

Results A total of 15 studies were included in the present study. A pooled accuracy of 0.956 (0.925 – 0.988) for conventional CE and 0.961 (0.940 – 0.981) for AI-assisted CE was observed. Conventional CE reported a lower pooled sensitivity of 0.860 (0.786 – 0.934) compared to AI-assisted CE 0.951 (0.906 – 0.996). Accordingly, AI-assisted CE showed a higher positive predictive value of 0.989 (0.987 – 1.000) while conventional CE reported 0.982 (0.976 – 0.987). Conventional CE however had higher pooled specificity of 0.998 (0.996 – 0.999) versus 0.959 (0.924 – 0.995) in AI-assisted CE. The negative predictive value was however higher in AI-assisted CE at 0.971 (0.945 – 0.997) compared to conventional CE at 0.760 (0.577 – 0.943).

Conclusions AI-assisted CE displays superior diagnostic accuracy, sensitivity, and positive predictive values albeit the lower pooled specificity in comparison with conventional CE. Its use would ensure accurate detection of small bowel lesions and further enhance their management.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP187 Artificial Intelligence and colorectal neoplasia detection performances in FIT + patients: a meta-analysis and systematic review

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DOI 10.1055/s-0044-1782888

Aims The combination of fecal immunochemical test (FIT) followed by a colonoscopy has established itself as one of the preferred population-based screening strategies. Optimizing endoscopists' detection performances is essential for enhancing the effectiveness of Colorectal Cancer (CRC) screening programs in reducing incidence and mortality due to CRC. Despite extensive exploration of various techniques and technologies (ie mucosal exposure devices, chromoendoscopy), their impact on adenoma detection rate (ADR) has shown inconsistency across studies in this specific setting -FIT + population-. The aim of this meta-analysis is pooling data of all the randomized trials focused on this strategic subpopulation in order to address whether the implementation of a CADe system may increase the identification of CR neoplasia precursors within a structured colorectal cancer screening program based on FIT.

Methods We searched MEDLINE, EMBASE, and Scopus databases until September 2023 for RCTs reporting diagnostic accuracy of CADe systems in the detection of colorectal neoplasia (PROSPERO: CRD42023462438). The primary outcome was pooled adenoma detection rate (ADR), and secondary outcomes were adenoma per colonoscopy (APC); advanced APC; serrated lesions; and non-neoplastic (i.e. hyperplastic) per colonoscopy. We calculated risk ratios (RRs), and performed meta-regression analysis in case of heterogeneity.

Results Ten randomized trials on 5421 patients were included. ADR was higher in the CADe group than in the standard colonoscopy group (62.38 % versus 48.35 %; RR 1.18, 95 % CI 1.08-1.30, I^2:49,76 %). CADe also resulted in higher detection performances of both advanced adenomas (RR 1.31, 95 % CI 1.20-1.68, I^2:46.62 %), and serrated lesions (RR 1.20, 95 % CI 1.10-1.31, I^2:0 %). On the other hand, more non-neoplastic polyps were removed in the CADe than the standard group (RR 1.17, 95 % CI 1.02-1.34, I^2:50.79 %). In multivariable meta-regression, baseline ADR, and withdrawal time were simultaneous significant predictors of the proportion of the CADe effect on both ADR, and Advanced APC.

Conclusions The use of CADe during colonoscopy results in an increased detection of adenomas, advanced adenomas, and serrated lesions in a FIT + setting. The expected higher prevalence of advanced adenomas in this subpopulation may have enhanced the risk of lesions overlooking and, thus the potential benefit of CADe systems implementation. The level of heterogeneity found appeared to be associated with variability in colonoscopy quality performances (ie Baseline ADR, and withdrawal time) across the studies, with relevant effect of AI on both ADR, and Advanced APC across those studies with low quality indicators. Higher rates of unnecessary removal of non-neoplastic polyps were also reported.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP188 A comparative study benchmarking colon polyp detection with CADe software

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DOI 10.1055/s-0044-1782889

Aims Some studies have shown that Computer-Aided Detection software (CADe) for real-time colonic polyp detection improves polyp detection and adenoma detection rate (ADR), but no head-to-head comparison of different commercially available CADe systems has been performed. This study aims to compare the performance of three different polyp detection systems using a novel standardized methodology.

Methods Three hundred colonoscopies were video recorded and short video clips (25–40 seconds) representing normal segments or segments containing a polyp were randomly selected. These videos were then streamed through each CADe system from the manufacturers Medtronic, Olympus, and Augere Medical. Each system had various configurations or versions, resulting in a total of six distinct CADe software settings that were compared to each other with respect to sensitivity, specificity and the false positive rate (FPR). We also assess five endoscopists performance regarding both polyp detection and reaction time and compared it to the CADe systems.

Results All the CADe system had a high sensitivity for polyp detection ranging from 90 %–100 %, but a more than four-fold difference in the false positive rates (FPR) per frame ranging from 1.2 % to 5.6 %. Overall, the CADe systems achieving the highest sensitivity also had the highest FPR, or most false alerts potentially distracting the endoscopists. The differences between the systems were statistically significant (p-value < 0.01). We also observed significant differences in alert delay between the different endoscopists and CADe systems.

Conclusions Our study shows that the CADe software performs better than the endoscopists, but there are significant differences between the CADe software. Although all of them have a very high sensitivity, some of them are hampered by an important FPR. A high FPR poses a risk of distracting the endoscopist. The most sensitive software also has the highest FPR.

Conflicts of interest Kim Ånonsen, Håvard Espeland, Andreas Petlund, Pål Hålvorsen and Michael Riegler have a financial interest as shareholders in Augere Medical ASPia Smedsrup, Tor Jan Berstad and Thomas de Lange are employed by Augere Medical AS.

OP189 Artificial intelligence improves neoplasia detection in inflammatory bowel disease patients: a pilot study evaluating the added value of a novel dedicated CADe-IBD algorithm for expert and non-expert endoscopists

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Aims Dysplasia detection in patients with Inflammatory Bowel Disease (IBD) can be challenging due to the flat and subtle nature of these lesions and background inflammatory / regenerative changes. The miss rate of neoplasia in IBD colon is not truly known. We are entering an artificial intelligence (AI) era and Computer Aided Detection (CADe) may prove its worth in IBD patients. The aim of this study was to evaluate the impact of a novel CADe-IBD algorithm on endoscopists performance

Methods A novel CADe-IBD algorithm was developed using 310,435 frames from IBD colon with sequential training, testing and external validation. High-definition white light (HDWL) videos were prospectively collected during IBD surveillance colonoscopy and edited to short clips with and without lesions. 4 expert endoscopists (those regularly carrying out IBD surveillance including the use of chromoendoscopy) and 4 non-expert endoscopists were asked to review the edited videos for the presence of lesions. Non-experts were then asked to re-watch videos, with the addition of novel CADe-IBD. The videos were randomly re-distributed to reduce recall bias. Ground truth was histology and external review by 3 independent endoscopists.

Results A total of 79 videos (39 with lesions and 40 without lesions) were included. Of the videos with lesions, 46.2 % (n = 18) were neoplastic and 53.8 % (n = 21) non-neoplastic. 84.6 % (n = 33) were non-polypoid lesions (Paris Classification IIa/IIb/IIc) and 15.4 % (n = 6) were polypoid (Is). 56.4 % (n = 22) were diminutive (< 5mm) in size.

The standalone sensitivity and specificity for lesion detection of CADe-IBD was 84.6 % and 82.5 % respectively. In comparison, expert sensitivity and specificity was 81.4 % and 77.5 % and non-experts 76.3 % and 63.1 % respectively. With the assistance of CADe-IBD, non-expert sensitivity was significantly increased to 92.3 % (p < 0.001) and specificity to 66.9 %. Similar improvements were seen on sub-analysis, including for non-polypoid lesion morphology where the addition of CADe-IBD improved non-expert sensitivity from 77.3 % to 93.0 %, compared to expert sensitivity of 81.3 %.

Conclusions Neoplasia detection in IBD remains challenging regardless of experience. Our data demonstrates that the stand-alone performance of the novel CADe-IBD is as good, if not better, than that of expert endoscopists. However, CADe-IBD could significantly enhance the performance of less experienced endoscopists during colitis surveillance with simple HDWL, without the need for image enhancement technologies or dye spray. This calls for a head-to-head comparison of CADe-IBD with conventional surveillance techniques.

Conflicts of interest Professor Bhandari has recieved research grants or is on the advisory board for Fujifil, Boston Scientific, Olympus, Pentax, 3D Matrix, NEC (Japan) and Medtronic

OP190 Artificial Intelligence (AI) improves endoscopists' vessel detection during endoscopic submucosal dissection (ESD)

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DOI 10.1055/s-0044-1782891

Aims While AI has been successfully implemented in detecting and characterizing colonic polyps, its role in therapeutic endoscopy remains to be elucidated. Especially third space endoscopy procedures like ESD and peroral endoscopic myotomy (POEM) pose a technical challenge and the risk of operator-dependent complications like intraprocedural bleeding and perforation. Therefore, we aimed at developing an AI-algorithm for intraprocedural real time vessel detection during ESD and POEM.

Methods A training dataset consisting of 5470 annotated still images from 59 full-length videos (47 ESD, 12 POEM) and 179681 unlabeled images was used to train a DeepLabV3 + neural network with the ECMT semi-supervised learning method. Evaluation for vessel detection rate (VDR) and time (VDT) of 19 endoscopists with and without AI-support was performed using a testing dataset of 101 standardized video clips with 200 predefined blood vessels. Endoscopists were stratified into trainees and experts in third space endoscopy.

Results The AI algorithm had a mean VDR of 93.5 % and a median VDT of 0.32 seconds. AI support was associated with a statistically significant increase in VDR from 54.9 % to 73.0 % and from 59.0 % to 74.1 % for trainees and experts, respectively. VDT significantly decreased from 7.21 sec to 5.09 sec for trainees and from 6.10 sec to 5.38 sec for experts in the AI-support group. False positive (FP) readings occurred in 4.5 % of frames. FP structures were detected significantly shorter than true positives (0.71 sec vs. 5.99 sec).

Conclusions AI improved VDR and VDT of trainees and experts in third space endoscopy and may reduce performance variability during training. Further research is needed to evaluate the clinical impact of this new technology.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Future perspectives in imaging and tissue acquisition for pancreatic lesions

26/04/2024, 15:30 – 16:30 Room 8

OP191 Automatic differentiation of solid pancreatic lesions in Endoscopic Ultrasound using – a multicentre study

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Aims Solid pancreatic lesions present a diagnostic challenge, often requiring multiple exams in the typical diagnostic workup. Pancreatic adenocarcinoma is the most common solid lesion, associated with a poor prognosis due to late-stage diagnosis. Endoscopic ultrasound (EUS) is typically involved in the diagnostic workup of these lesions. However, the diagnostic yield of this modality remains suboptimal, and it is often difficult to differentiate adenocarcinoma from other solid lesions. Our group aimed to develop a deep learning model for the automatic differentiation of solid pancreatic lesions, focusing on the identification of the most common pancreatic neoplasms: pancreatic ductal adenocarcinoma (PDAC) and pancreatic neuroendocrine tumors (pNETs).

Methods A total of 27,756 images from 107 EUS exams conducted in two specialized centres were used for the development of the convolutional neural network. The dataset comprised 22,710 images of PDAC, 3,886 images of pNETs, and 1,160 images of other solid pancreatic findings, including a solid pseudopapillary neoplasm, a pancreatic gastrointestinal stromal tumor, a plasmacytoma, metastasis of clear cell renal cell carcinoma and and accessory spleen. The training dataset included approximately 90 % of the total images, while the testing dataset, used to evaluate the model, consisted of the remaining 10 %. The model was evaluated through its sensitivity, specificity, positive and negative predictive values, accuracy, and area under the precision-recall curve (AUC-PR).

Results The model identified PDAC with a 99.4 % sensitivity, 98.6 % specificity, a positive predictive value of 99.7 %, and a negative predictive value of 97.4 %, achieving a global diagnostic accuracy of 99.3 %. The model also detected pNETs with 97.2 % sensitivity and 99.8 % specificity, with positive and negative values of 98.5 % and 99.5 %, respectively, and a global accuracy of 99.4 %. Additionally, the model differentiated adenocarcinoma from neuroendocrine tumour with 99.4 % accuracy. The convolutional neural network had an AUC-PR of 0.85 for the identification of pancreatic adenocarcinoma, with an AUC-PR of 1.00 for the identification of neuroendocrine tumours and differentiation between adenocarcinoma and neuroendocrine tumours.

Conclusions Our group developed a deep learning model capable of differentiating PDAC from pNETs and other solid pancreatic lesions with accuracy. The image processing time of the technology favours its clinical applicability. The development of deep learning models may help differentiate solid pancreatic lesions, achieving a more accurate diagnosis of pancreatic adenocarcinoma.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP192 Integrating artificial intelligence with endoscopic ultrasound for the differential diagnosis of pancreatic solid neoplasms

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DOI 10.1055/s-0044-1782893

Aims Solid pancreatic lesion incidence has risen in recent years with Pancreatic ductal adenocarcinoma (PDAC) and pancreatic neuroendocrine neoplasms (PanNENs) representing the two most prevalent, each requiring distinct treatments. Endoscopic ultrasonography (EUS) has proven to be a highly reliable technique for diagnosing pancreatic solid lesions, however, its diagnostic accuracy is constrained by operator experience and moderate interobserver agreement. The increasing popularity of artificial intelligence (AI) in medicine has led to the development of AI-based models capable of processing extensive data volumes, with promising results in various medical applications. This study aimed to assess the effectiveness of our AI-based model in analyzing EUS images of PDAC and PanNENs and distinguishing between the two types of lesions. The secondary aim is to assess the model's capability in lesion segmentation.

Methods Consecutive patients who underwent EUS at our center and received a pathological diagnosis of PDAC or PanNENs through biopsy or surgery were included in this retrospective study. One image per patient, containing the lesion, was selected, anonymized, and manually segmented by an experienced gastroenterologist. Images of low quality, with artifacts or obtained after contrast administration, were excluded. The image dataset was then augmented through data augmentation protocols and divided into training, validation, and test cohorts with a ratio of 60:20:20. Using these cohorts, we developed an AI model employing a deep-learning architecture to classify and segment the lesions.

Results The study included 307 patients (201 with PDAC and 106 with PanNENs), predominantly male (54.4 %), with a median age of 66 years at diagnosis. Two AI models, Model 1 and Model 2, were tested across 5-folds cross-validation for classification and segmentation tasks. Model 1 demonstrated mean average precision, Receiver Operating Characteristic Area Under the Curve (ROC AUC), and balanced accuracy at 87.48 %, 80.12 %, and 71.00 %, with specificity and sensitivity at 60.00 % and 82.00 %, and an Intersection over Union (IOU) of 53.65 % in segmentation. Model 2, focusing on the classification task, showed improved performance with mean average precision, ROC AUC, and balanced accuracy at 88.90 %, 82.00 %, and 73.63 %, and specificity and sensitivity at 64.76 % and 82.50 %, respectively. [1–6]

Conclusions The AI model we developed can differentiate between PDAC and PanNENs; however, further validation with larger datasets is required.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP193 Automatic detection of pancreatic ductal adenocarcinoma in endoscopic ultrasound guided fine needle biopsy samples based on whole slide imaging using deep learning segmentation architectures

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Aims Endoscopic ultrasound (EUS) guided fine needle biopsy (FNB) is the procedure of choice for the diagnosis of pancreatic ductal adenocarcinoma (PDAC). The samples obtained are small and require expertise in pathology, whilst the diagnosis is difficult in view of the scarcity of malignant cells and the important desmoplastic reaction of these tumors. Moreover, the limited availability of publicly accessible datasets containing pancreatic histopathological images has resulted in a scarcity of research on the automated detection of PDAC, especially based on whole slide imaging (WSI). In this study, a comparison of three U-Net architecture variants was performed on two different datasets of EUS-guided FNB samples from two medical centers (Craiova and Bucharest) with different parameters and acquisition tools. The obtained WSIs are multi-gigabyte images with typical resolutions of 40,000 × 40,000 pixels, used to train and evaluate the segmentation models.

Methods Craiova Dataset contains 31 PDAC WSIs from which we extracted 4,040 (2,473 positive, 1,567 negative) small patches of 256 x 256 pixels size. 2,940 patches extracted from 16 WSIs were used for training (2,228 patches) and validation (712 patches). 1,100 patches extracted from 5 WSIs were used for testing. Bucharest Dataset contains 33 PDAC WSIs from which we extracted 4,294 (2,909 positive, 1,385 negative) small patches of 256 x 256 pixels size. A number of 3,094 patches extracted from 16 WSIs were used for training (2,294 patches) and validation (800 patches). 1,200 patches extracted from 7 WSIs were used for testing. The three U-Net architecture variants evaluated in this paper are Inception U-Net, Vanilla U-Net and Dense U-Net. The performance is evaluated by considering the accuracy as the mean Dice coefficient and mean intersection over union (IoU), while mean epoch training time, mean evaluation time and the number of parameters show by comparison the computational complexity of each segmentation model.

Results The results suggest that the Inception U-net model with increased complexity performed best for both datasets, with an accuracy of 97.82 % and an average IoU of 0.87 for Craiova Dataset, and an accuracy of 95.70 % and an average IoU of 0.79 for Bucharest Dataset. The fastest to train and evaluate, Vanilla U-Net performed well in terms of accuracy and IoU for both datasets. The performance between the two datasets varies for the three segmentation models, due to the high complexity, subjectivity and quality of histological images. The tradeoff between performances, complexity, and speed is important to be considered for histological samples of very large dimensions, which require time and hardware.

Conclusions In this study, we have performed a comparison of three U-Net architectures for the automatic detection of PDAC in EUS-FNB samples based on WSI scans. The tested U-Net architectures provide excellent results for PDAC histological image segmentation, and suggest that there are differences in performance between U-Net models, using the mean Dice coefficient and mean IoU as evaluation metrics.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP194 Feasibility of endoscopic ultrasound-guided fine needle biopsy for generating patient-derived organoids of pancreatic ductal adenocarcinoma: preliminary results from a single-center prospective database

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Aims Pancreatic ductal adenocarcinoma (PDAC) is notorious for its aggressive nature and grim prognosis, underscoring the urgent need for personalized pre-clinical models to develop targeted therapies. Patient-derived organoids (PDOs) are three-dimensional models of human tumors that have emerged as promising research tools. We therefore aimed to assess the feasibility of endoscopic ultrasound-guided fine needle biopsy (EUS-FNB) for generating PDAC-PDOs.

Methods A single-center prospective database was established to collect data from suspected PDAC patients undergoing EUS-FNB for histological confirmation between May and October 2023. All biopsies were performed using a 22G-needle. Two to three biopsies were taken for histological examination before performing a single-pass FNB to establish PDO cultures. The primary outcome was the successful propagation of PDAC-PDOs for at least three passages (P3). Secondary outcomes included sample adequacy, diagnostic rate, and safety.

Results A total of 22 patients (M:F 13:9, median age 66.5 years, range 55-86) were enrolled. One case was subsequently diagnosed as pancreatic lymphoma and excluded. PDAC-PDOs were successfully established in 9 out of 21 PDAC cases at P3, resulting in a success rate of 43 %. The median size of the 9 PDAC from which PDOs were generated was 4 cm (range 1.2-5). 5 masses were located in the pancreatic head, 1 in the neck, 1 in the body, and 2 in the tail. Sample adequacy and diagnostic rates were both achieved in 100 % of subjects. The presence of a biliary stent during EUS-FNB did not impact the success rate of PDAC-PDO generation (n = 1 in the generated PDAC-PDOs group vs n = 3 in the non-generated PDAC-PDOs group; $p = 0.254$). No adverse events related to the procedure occurred. [1]

Conclusions This study demonstrates that PDAC-PDOs can be successfully generated through EUS-FNB sampling with a single-pass fine needle biopsy, without compromising the safety profile of the procedure.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP195 Pancreatic Organoids establishment from EUS Fine Needle Biopsy in patients affected by Pancreatic Cancer: Preliminary results from the Bile Biopsy study

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Aims We performed a prospective observational study aiming to evaluate the feasibility to create tridimensional pancreatic derives organois (PDOs) from EUS guided FNB samples of patients affected by PDAC and to correlate patients derived organoids (PDOs) with native cancer histology. The secondary endpoint of our study was to assess the feasibility of using bile as biological fluid for cell free DNA (cfDNA) and to investigate the landscape of cfDNA in bile and plasma of patients affected by PDAC.

Methods Patients with strong suspicion or recent diagnosis of PDAC and concomitant jaundice were prospectively evaluated. Every patient underwent EUS guided FNB for histological diagnosis and organoid collection was performed. By the time of biliary drainage, bile and plasma were collected for DNA extraction and analysis (▶ **Fig. 1**, Research Workflow).

Results From June 2023 to September 2023, thirty-six patients with neoplastic jaundice were evaluated. Eighteen patients with final diagnosis of PDAC have been included in the study. Eighteen of them underwent biliary drainage with collection of bile and plasma. Sixteen of them underwent EUS guided FNB for organoid collection. Baseline characteristics are described in **Table 1**. Mean tumor size was 33.7 ± 9.6 mm. Tumor was located in the head of pancreas in 94.4 % of cases. Nine patients (50 %) were metastatic by the time of diagnosis, eight patients (44 %) had locally advanced disease and only one patient was considered resectable. EUS guided tissue acquisition was performed sing FNB needles (**Table 2**). PDOs establishment rate was successful in 100 % of cases. No EUS-FNB related adverse events were observed. Organoids self-renewal and self-organization are shown in **Figure 2**. At a quality concordance pathological analysis between PDAC and PDOs, morphological similarities have been observed in all cases (100 %). Cellular morphology and nuclei atypia were the most consistent similarities. Organoids showed a glandular over expression compared to native PDAC (**Fig 3**). Extracted cfDNA was significantly higher in bile supernatant than in plasma (2.9 ng/ml vs 19.8 ng/ml p = 0.0001) (**Fig 4**). No significant differences were found for plasma and bile cfDNA among disease stages. Higher level of bile cfDNA in locally advanced disease and a trend of higher level of plasma cfDNA in metastatic stage. Bile cfDNA showed longer DNA fragment compared to plasma

Conclusions Organoids establishment is feasible and safe with a single passage of EUS guided FNB. PDOs maintain the morphological architecture of native cancer, although the absence of dense stromal reaction leads to a remarkable organoids ability to create glandular structures. Qualitative and quantitative composition of ctDNA is superior in bile rather than in plasma, making this fluid an important tool for NGS analysis and a better comprehension of tumor mutations

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP196 Real life adherence to international guidelines in BD-IPMN management. Clinical and costs impact of divergent strategies in BD-IPMN care. The PACMANS Study

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DOI 10.1055/s-0044-1782897

Aims Over the last two decades, there has been a rise in the diagnosis of Branch Duct Intraductal Papillary Mucinous Neoplasms (BD-IPMN), incidental findings posing potential neoplastic risks. Multiple guidelines, notably the International Association of Pancreatology (IAP)' revised in Fukuoka in 2017, have been suggested to optimize risk management. However, the intricate nature of these guidelines makes adherence challenging, raising uncertainties regarding their application in clinical practice. This study aimed to assess adherence to the 2017 IAP guidelines, identify factors associated with non-compliance, and analyze the impact of divergent strategies on clinical outcomes and costs.

Methods Clinical and histopathological data from 2017 to 2023 were retrospectively collected from four tertiary centers in Northern Italy, focusing on patients with suspected BD-IPMN. Multivariate logistic regressions were employed to analyze factors influencing divergent strategies from the IAP guidelines and assess their consequences on clinical outcomes, survival, and costs. Surveillance strategies were considered aggressive if deviating to a narrower surveillance timing or indicating higher-level examinations than recommended by the IAP guidelines. Conservative approach was defined as suggesting extended surveillance timing or indicating lower-level examinations than specified by the IAP.

Results Of the 333 enrolled patients with a total of 1400 visits and a median follow-up of 4 years, 54 % received recommendations deviating from the guidelines, predominantly in an aggressive direction (53.7 %). Protective factors for deviation were an Age-adjusted Charlson Comorbidity Index (ACCI) above 4 (OR 0.44, 95 % CI 0.33-0.58, p < 0.001) and larger initial IPMN size (OR 0.22, 95 % CI 0.17-0.28, p < 0.001), while divergent approach increased by 25 % every two years of follow-up (OR 1.25, 95 % CI 1.11-1.41, p < 0.001). Conservative divergences, occurring in 25 % of cases, were associated with the presence of High-Risk Stigmata (HRS) (OR 5.79, 95 % CI 1.82-18.50, p = 0.003) and female sex (OR 1.55, 95 % CI 1.25-2.04, p = 0.001). Notably, divergent strategies did not lead to different rates of IPMN-related mortality (2.5 % vs 2.4 %, p = 1). However, they resulted in increased surveillance costs, escalating from 720 [407-1253] to 878 [664-1181] euros per patient over three years (p = 0.001).

Conclusions In conclusion, adherence to the IAP guidelines in clinical practice was low, predominantly exhibiting deviations in an aggressive direction. This non-adherence significantly increased costs compared to those projected by following the recommended guidelines.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Endoscopy 2024; 56: S1–S503

Endoscopy in inflammatory bowel disease

26/04/2024, 15:30 – 16:30 Room 10

OP233 Accuracy of PanMayo endoscopic score in predicting long-term disease outcomes in ulcerative colitis – a promising scoring system

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Aims Colonoscopy plays a crucial role in management of ulcerative colitis (UC) that helps to assess mucosal healing. Different scoring systems are available to assess severity, however most of them do not correlate with disease extent. Our study aimed to assess the predictive value and accuracy of PanMayo score compared to MES, UCEIS and Dublin in mid- and long-term disease outcomes.

Methods This is a retrospective, two-center study. UC patients, who underwent colonoscopy due to any reason between 2016 and 2018, were consecutively enrolled. PanMayo, MES, UCEIS and Dublin scores were recorded with clinical and demographical data at baseline. Disease flare, need for change in therapy (incl. initiation of biologicals, need for systemic steroids), hospitalisations and colectomy were collected during an at least 3-years follow-. Patients were stratified by using baseline clinical activity (pMayo > 1). Log-rank, logistic regression and Chi² tests were used to analyze outcomes and Kaplan Meier curves were plotted.

Results A total of 250 UC patients (Table 1.) were enrolled. 157 (male ratio 0.49; mean age 46 IQR 19.5 years) UC patients had clinical remission, while 93 had active disease at baseline (male ratio 0.43; mean age 42 IQR 25 years). PanMayo, MES, and Dublin scores were positively associated with risk of flare-up ($p = 0.002$; $p < 0.01$; $p = 0.003$). Increasing MES score was coupled with risk of relapse. PanMayo score (above 12 points), but not MES or UCEIS, was associated with the need of new biological ($p < 0.001$) and treatment escalation ($p = 0.018$), similar trend was found for the Dublin score for need for new biologicals in the remission cohort. All scores were strongly associated with the need for systemic steroids in patients with baseline remission. In the cohort with active disease at baseline, PanMayo ($p = 0.016$) and Dublin ($p = 0.009$) scores were associated to colectomy risk.

Conclusions Our study suggests that combined endoscopic assessment of the extent and severity may be more precise in predicting disease outcomes in UC. PanMayo score may be an alternative of the existing scoring systems and was associated more granularly with disease outcomes. [1–4]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP234 Optimization of deep learning architectures for differentiating cytomegalovirus infection in severe ulcerative colitis

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Aims Cytomegalovirus (CMV) reactivation is common in patients with severe ulcerative colitis (UC). Patients with UC exacerbated by reactivated CMV experience worse prognoses than those without CMV reactivation. However, CMV is primarily diagnosed through biopsies, and it can take quite a time to get results, making early diagnosis challenging. To address this, we have conducted research using deep learning to differentiate CMV from severe ulcerative colitis (UC), which has similar features, through endoscopic imaging, enabling early diagnosis of CMV.

Methods This study leveraged endoscopic imaging to classify CMV and severe UC within a dataset comprising 86 cases from Ewha Womans University hospitals, deploying 7 convolutional neural networks. The training utilized a 4:1 ratio, enhanced by a 5-fold cross-validation, to counter the dataset's constraints. Networks underwent optimization for 10 epochs, a batch size of 10, sigmoid activation, and a learning rate of 1e-4. To improve the performance of the network, we employed augmentation techniques such as random rotations and flipping, and performed brightness standardization and resizing of resolution. Additionally, to distinguish lesions that are difficult to differentiate with RGB values, we converted the images to HSV values to separately process areas of reflected light and ulcerated regions.

Results Among the total of 7 networks used in this study, Densenet121 showed the best performance with an accuracy of 0.8267 (Precision 0.7979). Densenet201 and MobileNetV2 also demonstrated the next best performances with accuracies of 0.7857 and 0.7143, respectively.The standardization and augmentation performed during the preprocessing process have been confirmed to improve the network's performance, and the network's robustness was verified through 5-fold cross-validation.

Conclusions The research underscores the potential of deep learning models in differentiating CMV from severe UC through endoscopy images, indicating a promising direction for non-invasive diagnostics and timely treatment interventions.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP235 The AI-based Red Density score is correlated with the established and new histological indices for ulcerative colitis in an independent cohort

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Aims Red Density (RD) is an automated endoscopic tool that is developed for the objective evaluation of disease activity in ulcerative colitis (UC). Initial de-

velopment was based on an algorithm including histological disease activity based on Robarts histological index (RHI). New histological scores for UC have been developed since. We aimed to establish the correlation between RD and the Nancy histological index (NHI) and PICaSSO Histologic Remission Index (PHRI).

Methods Patients included in 4 centers in the ongoing PROCEED-UC study (NCT04408703) had assessment with RD in the rectum and sigmoid at baseline, week 52 or early termination visit. RD score ranges between 0 and 255, cut-off for remission was previously determined to be < 60.[1] Biopsies were taken according to protocol and scored for the Geboes score (GBS), RHI, NHI, PHRI in a blinded way after initial scoring convention training. Correlation was tested on patient level between mean RD per segment and the different histological indices based on Spearman correlation.

Results Ninety-six patients from 4 centers were included representing 2634 RD images from 400 colonic segments with biopsies and corresponding RD score. Mean (± SEM) rectal RD score was 32.7 (± 4.54), 33.69 (± 5.25) and 64.86 (± 31.71) at baseline, w52 and ET, respectively. Mean sigmoidal RD score was 38.13 (± 3.68), 42.82 (± 11.80) and 77.33 (± 24.65) at baseline, week 52 and ET, respectively. There was a significant correlation between the highest mean RD score per patient and the NHI (r = 0.60, p < 0.0001) and the PHRI (r = 0.62, p < 0.0001). In the rectum the RD score at all time points correlated significant with NHI (r = 0,53, p < 0.0001) and PHRI (r = 0.63, p < 0.0001). Similar correlation was seen in the sigmoid for NHI (r = 0.51, p < 0.0001) and PHRI (r = 0.22, p0.0108). A RD score of < 57.5 (AUC 0.7820 (95CI 0.7047 – 0.8593), p < 0.0001) was associated with histological remission based on NHI (< 2) and a RD score of < 64.5 (AUC 0.8133 (95 % CI 0.7053 – 0.9212), p < 0.0001) with histological remission based on PHRI (= 0). The current dataset demonstrated to be stable in line with the previously established RD cut-off with GBS and RHI. [1]

Conclusions In an independent cohort of patients with UC the correlation with the established and new histological indices is confirmed. This confirms the value of RD as objective endoscopic tool for the assessment of histological and endoscopic disease activity.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP236 A Novel Switching-Multimodal Artificial Intelligence To Simultaneously Convert Different Endoscopic Enhancement Modalities For Accurate Assessment Of Inflammation And Healing In Ulcerative Colitis

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DOI 10.1055/s-0044-1782901

Aims Virtual Chromoendoscopy (VCE) has proven effective in predicting disease activity in Ulcerative Colitis (UC), although challenges persist regarding local availability and expertise. Artificial intelligence (AI) models applied to VCE have demonstrated a remarkable ability to rapidly, objectively, and accurately predict inflammation. Nonetheless, training machine algorithms across different enhancement modalities remains challenging. Hence, this study pioneers a novel machine model designed to simultaneously detect different VCE enhancement modalities and facilitate the transition between images to improve and standardise AI-based assessment of inflammation in UC.

Methods Endoscopic videos from 302 UC patients recruited in the international real-life prospective PICaSSO study were analysed. The endoscopic assessment of the rectum and sigmoid colon was performed using WLE, iScan 2 and iScan 3 modalities (Pentax, Japan). In the study's first phase, a switching AI model that detects and converts images across different modalities was developed. A neural network (NN) to identify the acquisition modality of each frame was trained and tested with 1531 (510 WLE, 518 iScan 2, and 503 iScan 3) and 321 (103 WLE, 109 iScan 2, 109 iScan 3) randomly extracted frames, respectively. Subsequently, a CycleGAN model was trained with 900 images per modality to allow inter-modality image switching. In the second phase, 240 annotated videos (4605 frames) were selected, with endoscopic activity graded by experts using UCEIS for WLE and PICaSSO for VCE. Videos were switched to missing modalities and used to train a previously developed deep-learning model for inflammation assessment. Four models were trained: three using a single modality as input and one combining all modalities. Model performance in predicting inflammation was assessed by computing accuracy, sensibility, specificity and AUC.

Results The switching model showed a remarkable ability to classify and convert images across different endoscopic modalities, achieving a 92 % NN classifier accuracy on the test set. The deep learning model showed a sensitivity of 80 % (95 % CI 59 %-93 %), specificity of 94 % (95 % CI 82 %-99 %), accuracy of 89 % (95 % CI 79 %-95 %) and AUC of 0.91 in predicting inflammation when combining images obtained through the switching model. This multimodal approach improved the performance of single-modality models. [1]

Conclusions This study introduces an innovative multimodal "AI-switching" model capable of accurately detecting and simultaneously switching between different endoscopic enhancement modalities. Combining the images obtained through this model enables precise assessment of inflammation in UC patients, exhibiting promising potential for application in clinical trials and clinical practice.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP237 Characterization of colorectal cancer in patients with primary sclerosing cholangitis & inflammatory bowel disease

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DOI 10.1055/s-0044-1782902

Aims Patients with inflammatory bowel disease (IBD) are at increased risk of developing colorectal cancer (CRC), particularly if presence of primary sclerosing cholangitis (PSC). We aim to characterize CRC in patients with PSC-IBD, including location and preceding endoscopic and histologic findings.

Methods We performed a retrospective study from 154 patients with PSC-IBD (128 with ulcerative colitis, 26 with Crohn's disease) and subsequent CRC diagnosis who were treated at Mayo Clinic between 1990 and 2023. Patients were identified using billing codes and natural language processing. We retrieved demographic data, IBD duration and disease activity based on endoscopic and histologic findings preceding CRC diagnosis. CRC location was divided into right (cecum, ascending colon, transverse colon) and left colon (descending colon, sigmoid colon, and rectum). Endoscopic scoring was assigned to each segment based on no inflammation (0), mild (1), moderate (2), and severe (3). Similarly, histologic scoring was assigned based on normal (0), quiescent (1), mild (2), moderate (3), and severe (4). Average endoscopic and histologic scores of all

colonic segments were obtained. Incidence of cholangiocarcinoma was also captured regardless prior or latter onset to CRC diagnosis.

Results Age of onset in PSC-IBD patients was 66.32 ± 14.9. CRC presented as a single lesion in 128 patients (33 CRCs presented in the cecum, 46 in the ascending colon, 19 in transverse colon, 7 in descending, 8 in sigmoid, and 15 in rectum) versus 10 synchronous CRCs (major incidence in ascending/transverse with 4 cases). Sixteen patients had CRC of unknown location. Synchronous CRCs presented in younger patients (55.7 ± 15 vs 65.3 ± 14.3; p-value = 0.047) compared to single CRCs but there was no significant difference in IBD duration at CRC onset (21.1 ± 6.9 vs 20.5 ± 10.6; p-value = 0.87). There was no significant difference in right CRCs age of onset (51 ± 12.18 vs 46.8 ± 10.7; p-value = 0.19), IBD duration at CRC onset (21.2 ± 11.4 vs 18.44 ± 8.45; p-value = 0.27) when compared to left CRCs. Left CRC incidence was higher in patients with CRC onset before the age of 60 (28 % vs 11.4 %; p-value 0.04). There was no significant difference in cholangiocarcinoma onset between right and left CRCs. Interestingly, when comparing among colonic segments, cholangiocarcinoma diagnosis preceded cecal (n = 6) and descending CRCs (n = 2) by 11.4 ± 10.8 and 19 ± 9.9 years (p-value = 0.006) respectively while the rest of segments presented either at time of or after CRC diagnosis. Average endoscopic and histologic scores were not significant different between right and left CRCs at the time of diagnosis.

Conclusions Despite PSC-IBD patients are more likely to present with right CRCs, patients younger than 60 have a higher incidence of left CRCs when compared to the older counterpart. It was also noted that synchrounous CRCs present at a younger age. It is well known that IBD duration is a risk factor for CRC development but pathogenesis is likely multifactorial. Future studies are needed to determine other risk factors, such as genetic variants, in PSC-IBD CRCs. [1–3]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP238 Which endoscopic severity assessment tool correlates best with non-invasive Crohn's disease activity parameters?

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Aims Although there are several scores for endoscopic severity assessment in Crohn's disease (CD), there is conflicting and scarce information regarding their agreement and relationship with laboratory non-invasive parameters, namely C-reactive protein (CRP) and fecal calprotectin (FC). We aimed to investigate the agreement between the Simple Endoscopic Score for Crohn's Disease (SES-CD), Modified Multiplier SES-CD (MM-SES-CD), and the recently suggested Toronto Inflammatory Bowel Disease Global Endoscopic Reporting (TIGER) score and their correlation with CRP and FC in CD.

Methods Retrospective cohort-study including all ileocolonoscopies performed in adult CD patients between January 2021 and July 2023 with CRP (mg/dL) and FC (ug/g) collected within one month. Patients with previous intestinal surgery or inadequate bowel preparation were excluded. Agreement between SES-CD (active disease > 3), MM-SES-CD (active disease ≥ 14), and TIGER scores (active disease ≥ 100) was determined using Kappa statistics (k) and each value was correlated with laboratorial biomarkers using Spearman's correlation coefficients (rho).

Results A total of 312 ileocolonoscopies from 246 CD patients were included, most females (52.9 %) with a mean age of 42 ± 14 years old. According to Montreal Classification, most patients had A2 (71.2 %), L1 (47.8 %) and B1 (69.6 %) disease. Median SES-CD, MM-SES-CD, TIGER scores were 3, 12, and 3 points, respectively. The mean/median value of CRP was 2.9 mg/dL, while mean FC value was 243 ug/g. There was an excellent, strong, and moderate agreement between SES-CD and MM-SES-CD (k = 0.929, P < 0.001), SES-CD and TIGER (k = 0.682, P < 0.001), and MM-SES-CD and TIGER score (k = 0.504, P < 0.001), respectively. There was a fair correlation between SES-CD (rho = 0.412), MM-SES-CD (rho = 0.423), TIGER score (rho = 0.430) and CRP (P < 0.001). SES-CD (rho = 0.563), MM-SES-CD (rho = 0.540) had a fair correlation and TIGER score (rho = 0.610) had a moderate correlation with FC (P < 0.001).

Conclusions Although existing Crohn's disease endoscopic severity scores have moderate to strong agreement regarding endoscopic activity, they continue to have suboptimal correlation with laboratory non-invasive biomarkers.

Conflicts of interest Authors do not have any conflict of interest to disclose.

ESD and EMR: The news

26/04/2024, 15:30 – 16:30 **Room 6 & 7**

OP197V Between the third and second space: an endoscopic submucosal dissection (ESD) with mesorectal space exposure of a recurrent circumferential lesion of the rectum

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Abstract Text A 70-year-old man underwent colonoscopy in 2020 for diarrhoea. The colonoscopy detected a semi-circumferential granular rectal polyp at the lower rectum that was treated with trans-anal endoscopic microsurgery (TEM) at another Institution, after multiple endoscopic resection attempts. Endoscopic surveillance in 2023 revealed a locally recurrent circumferential adenoma extending beyond the dentate line and involving multiple traction areas due to the previous surgery. Patient was referred to our Institution to evaluate an endoscopic treatment and avoid Miles' surgery. ESD with partial full-thickness resection was proposed. Circumferential ESD with mesorectal exposure was performed obtaining an en bloc resection (R0). Afterwards, the patient showed symptoms due to stenosis, which was treated with mechanical dilation in outpatient settings.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/04cc9b4a-a964-4ccd-8744-0cb86eb71683/Uploads/13821_ESD_POST%20TEM%20SHORT%20SUB%20(1).mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP198 Feasibility, safety, and outcomes of LGI endoscopic submucosal dissection from UK ESD Registry: The largest multicentre prospective study on Western population

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Aims The outcome of ESD in early gastrointestinal neoplasia in Japan is well established whereas in the west, it is variable depending on the volume and experience. Therefore, a multicentre national registry was set up in the UK to prospectively evaluate the practice and outcomes of ESD.

Methods This is a prospective observational study for patients undergoing ESD for early GI neoplasia. All technical and outcoms data was prospectively collected onto REDCap.

Results There were 568 colorectal ESDs from August 2016 to August 2023 recruited from 6 large tertiary referral centres in the UK. Mean age of the patients was 67.3 years (range 37 – 90 years) with male preponderance (341 males vs. 227 females). Majority were in the rectum: 300, 52.8 % while 126 (22.2 %) in the left colon and 142 (25 %) were in the proximal colon. Polyp size ranges from 10 to 210 mm (mean 47 mm). 318 (56 %) were flat polyp.

Of 568 ESDs, 128 (22.6 %) were hybrid ESDs where more than 80 % of submucosal dissection was completed by using a knife before using a snare for completion. Technical success was achieved in 97.7 % (555 cases) with en-bloc rate of 83.1 %.

Overall, there were 22 (4 %) intraprocedural perforation (7 proximal and 15 distal colon) and 7 (1.3 %) intraprocedural bleeding (3 proximal and 4 distal colon) which were all managed endoscopically. There were 3 (0.5 %) delayed perforation (2 in caecum and 1 in rectum) and out of which, 1 required surgery and 2 were managed conservatively. There were 15 (2.7 %) delayed bleeding (6 proximal and 9 distal colon) and 4 of them required blood transfusion while others were managed conservatively/endoscopically. 5 were readmitted with post polypectomy syndrome.

Post resection histology showed 508 adenomatous neoplasia, 18 sessile serrated lesions (SSLs) with dysplasia, 4 SSLs without dysplasia, 3 hyperplastic polyps, 6 neuroendocrine tumours and 1 squamous cell cancer and 1 melanoma.

Post resection ESD of 508 adenomatous lesions showed majority (298, 58.6 %) was low grade dysplasia with R0 rate of 65 %. 142 (28 %) were high grade dysplasia with R0 rate of 85.5 %. There were 66 (13 %) submucosally invasive cancers with deep margin R0 rate of 75.1 % and lateral margin R0 rate of 79.7 %.

Conclusions Our multicentre data demonstrates that ESD in rectum and colon is feasible, safe, and effective in Western setting. We did not observe any difference in adverse outcomes between ESDs in the left and right colon. Overall, R0 rate are suboptimal which could be related to hybrids ESD or resecting too close the margin of the lesion and needs improvement.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP199 Impact of annual case volume on colorectal endoscopic submucosal dissection procedural outcomes and safety in a large multicentric prospective cohort study

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Aims The adoption of endoscopic submucosal dissection (ESD) as the main treatment for large colorectal lesions is still limited in the West. A recent high-quality study showed colorectal ESD has been proved equally safe and more effective than piecemeal endoscopic mucosal resection (EMR). Reproducibility outside experts centers has been questioned. Therefore, we evaluated results according to volume case load per year in a large multicentric prospective cohort of colorectal ESDs.

Methods Patients referred for colorectal ESD were consecutively included in this multicentric prospective cohort (FECCO NCT04592003) between 09/2019 and 09/2022. 13 participating centers were classified into low-volume (LV) (< 50 ESDs/year), middle-volume (MV) (50-100 ESDs/year), and high-volume (HV) centers (> 100 ESDs/year). En bloc, R0, curative resection rates and dissection speed as well as complication rates and need for surgery were assessed. Univariate, multivariate and propensity score matching analyses were performed.

Results 3770 colorectal ESDs performed were included. 62.4 % of the lesions were colonic. HV group performed more colonic cases (68.6 %) than MV and LV groups (61.6 % and 40.5 %, respectively) ($p < 0.01$). Lesions were larger in HV and MV centers (50 x 40 mm for both) than in LV centers (45 x 35 mm) ($p < 0.01$). The overall en bloc resection rate was 95.2 %; HV centers achieved a greater rate (96.3 %) than MV and LV centers (92.9 % and 93.9 %, respectively) ($p < 0.01$). Pooled R0 resection rate was 87.4 %; it was better in HV centers than in MV and LV centers (88.7 % vs 83.8 % and 86.8 %, respectively). The curative resection rate, being overall 83.2 %, was lower in MV centers (79 %) than in HV and LV groups (84.7 % ($p < 0.01$) and 82.5 % ($p = 0.10$), respectively). The median duration of procedure was 57 min and was shorter in HV centers (48 min) than in LV and MV groups (75 min and 70 min, respectively) ($p < 0.01$). Dissection speed was 28.7 mm^2/min, being greater in HV centers (34.8 mm^2/min) and lower in MV (22.9 mm^2/min) ($p < 0.01$) and LV centers (18.1 mm^2/min) ($p < 0.01$). All groups exceed the recommended acceptability thresholds with good quickness. Delayed bleeding and surgery due to complications rates were 5.4 % and 0.8 %, respectively, with no significant difference between the groups. Perforation rate, being overall 9 %, was higher in MV centers (11.1 %) than LV and HV groups (7.5 % ($p = 0.02$) and 8.7 % ($p = 0.06$), respectively). Multivariate analysis found size > 50 mm, poor maneuverability, recurrent and appendiceal lesions,

but not volume of the center were risk factors for both R1 resection ($p < 0.01$) and perforation ($p < 0.01$) suggesting that differences of outcomes can be explained by lesion characteristics.

Conclusions In an organized referral system, colorectal ESD can be successfully implemented in the West even in not expert contests. On those terms, ESD should be adopted as the first-line therapy for large colorectal lesions. However, tough lesions must still be referred to the experts.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP200 Randomized controlled trial comparing conventional and underwater endoscopic submucosal dissection for superficial colorectal neoplasms

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DOI 10.1055/s-0044-1782907

Aims Conventional endoscopic submucosal dissection (C-ESD) is performed under gas conditions. However, the newly developed underwater ESD (U-ESD) has advantages, including a clear visual field without halation, buoyancy, easy use of water pressure for opening the mucosal cutting edge, and heat-sink effects. The usefulness of U-ESD for superficial colorectal neoplasms (SCNs) has been reported, but few studies have compared it with C-ESD. This study aimed to investigate whether U-ESD improves the procedure-related outcomes compared with that of C-ESD in patients with SCNs.

Methods This was a single-center, randomized controlled trial conducted in our department. Patients with unresectable SCNs en bloc by endoscopic mucosal resection were eligible for this study. The participants were randomly assigned to undergo C-ESD or U-ESD performed by a single expert using a monopolar needle-type knife and a tapered hood. Saline was used to create underwater conditions for the U-ESD group. The primary outcome was the median dissection speed, defined as specimen area per ESD procedure time—from the first injection to the completion of submucosal dissection. The secondary outcomes included ESD procedure time, median dissection speed by lesion location categorized by the relationship between the lesion and gravity direction, tumor size, en bloc resection rate, perforation rate, and total amount of saline used during ESD.

Results Between November 2019 and October 2023, 140 patients underwent randomization. Of these, 69 patients who underwent C-ESD and 70 patients who underwent U-ESD were included in the analysis. The median dissection speed was 17.4 and 19.9 mm^2/min in the C-ESD and U-ESD groups, respectively ($P = 0.19$). The median ESD procedure time was 55.5 min in the C-ESD group and 48.3 min in the U-ESD group ($P = 0.38$). For lesions located at the gravitational side, the median dissection speed was significantly higher in the U-ESD group than in the C-ESD group (20.8 vs. 13.4 mm^2/min; $P < 0.001$). The median tumor size for C-ESD and U-ESD groups were 26 and 25 mm, with no significant difference ($P = 0.27$). En bloc resection was achieved without perforation in all patients. The total volume of saline used in the U-ESD group was significantly higher than that in the C-ESD group (900 mL vs. 100 mL; $P < 0.001$). [1–4]

Conclusions Our findings suggest that U-ESD does not facilitate dissection speed in colorectal ESD procedures in the overall patient population. However, U-ESD may be a better option for SCNs at the gravitational side where liquid easily collects.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP201 Endoscopic submucosal dissection with adaptive traction: first prospective multicenter study

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Aims Traction has become the reference strategy for colorectal endoscopic submucosal dissection (ESD). One of its main limitations is that the power of traction decreases as dissection progresses. The ATRACT traction device uses a pulley system to increase traction during the procedure, making it simpler and faster. A retrospective study of 54 cases revealed interesting results in terms of efficacy and safety throughout the digestive tract.

We sought to confirm these initial results with a prospective study of resections of colorectal lesions measuring 4 to 10 cm, in conventional locations (no recurrent lesions, appendicular, of the ileo-caecal valve, in contact with the pectineal line or measuring more than 2/3 of the circumference).

Methods In this prospective multicenter study, 5 experienced operators from 3 different centers each performed 10 procedures using the ATRACT device consecutively for all conventional colorectal ESDs measuring between 4 and 10 cm.

The ATRACT traction device used had 2 active loops and 2 free loops (ATRACT 2 + 2) and was manually manufactured.

Results Between November 2022 and April 2023, 50 ESDs were performed in 49 patients. Lesions were located in the colon in 84 % of cases and in the rectum in 16 %. Device tightening was used in 72 % of procedures.

On average, the main diameter of the lesions was 66.6 mm, with a surface area of 3066 mm2. The average operating time was 55.2 minutes, resulting in a mean resection speed of 61.38 mm2/min.

The en bloc and R0 resection rates were 100 % and 98 % respectively. Resections were curative in 94 % of cases.

4 perforations (8 %) occurred, all of which were closed endoscopically without the need for surgery. 1 case of delayed haemorrhage (2 %) was noted.

In 10 cases (20 %), a technical failure occurred with the ATRACT device, but this did not prevent the procedure from being completed (in 6 cases, the device could not be tightened, and in 4 cases, one or more clips failed).

Conclusions To date, this is the series demonstrating the highest resection speeds in the literature regarding colorectal ESD. By way of comparison, Yamamoto et al reported a speed of 23.5 mm2/min using the "pocket" strategy, and Bordillon et al noted a speed of 39.1 mm2/min with the double-clip traction technique. These results need to be confirmed in larger studies, and in non-expert centers.

The adaptive traction strategy in ESD, via optimal exposure of the submucosa throughout the procedure, appears to bring significant benefits in terms of efficacy and safety. [1–2]

Conflicts of interest Jean Grimaldi, Louis-Jean Masgnaux, Timothée Wallenhorst, Romain Legros, Jérome Rivory, Jérémie Jacques and Mathieu Pioche are founders of the company Atract Device & Co

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OP202V Colorectal endoscopic submucosal dissection using a novel device

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DOI 10.1055/s-0044-1782909

Abstract Text A 62-year-old woman presented with a mixed granular lateral spreading lesion in the rectum (70x40 mm, NICE 2/JNET 2A). We performed an endoscopic submucosal dissection using Flexlifter for traction. Flexlifter consists of a transparent plastic cap with a forceps that is placed on the tip of the endoscope. The forceps has two movements: open/close and forward/backward, so that it can be pushed beyond the tip of the endoscope to grasp the mucosa and pull it. It lifts the mucosal flap and keeps the submucosal space exposed, which makes it easier to identify the dissection plane and the vessels and, ultimately, allows for more comfortable and safe dissection. We obtained a 12x10 cm specimen (tubular adenoma with foci of adenocarcinoma), with a total procedure time of 2h30min. In our case Flexlifter proved to be effective and safe, but more clinical studies will be necessary to confirm this result.
Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/3c6f415a-5b9a-4deb-bae8-4e7632afeeb7/Uploads/13821_ESD_Flexlifter.mp4
Conflicts of interest Authors do not have any conflict of interest to disclose.

Advanced Techniques in Upper GI Endoscopy: New Tricks for Old Problems

26/04/2024, 15:30 – 16:30 **Room 11**

OP239 Gastric non-penetrating defects following endoscopic full-thickness resection (EFTR): to suture or not?

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DOI 10.1055/s-0044-1782910

Aims Complete closure following endoscopic full-thickness resection (EFTR) is indispensable to prevent perforation. However, defects located at lesser curvature of stomach were found to be non-penetrating due to coverage of adjacent connective tissue and omentum. This study aimed at evaluating the safety and feasibility of not suturing these non-penetrating defects.
Methods Patients who underwent gastric EFTR from December 2016 to September 2023 for submucosal tumors (SMTs) were recruited. Patients' inclusion criteria: 1) SMTs larger than 3 cm in diameter; 2) defects occurred after EFTR appeared to be non-penetrating; 3) non-suturing option was used after informed consents assigned. Decompression nasogastric tube was inserted. Clinical data of all patients were collected and analyzed retrospectively.
Results In twenty patients with SMTs were performed EFTR, and have non-penetrating gastric wall defects. The non-suturing strategy was used. The mean size of SMTs was 4.2 ± 1.1 cm. Endoscopic check was scheduled on postoperative day 3 to confirm rigidity of the base of each gastric defect. No adverse events such as perforation and bleeding occurred in all patients. On follow-up, all defects healed completely within 3 months on endoscopic examination. [1–14]
Conclusions For non-penetrating defects after EFTR, non-suturing strategy is a safe and feasible alternative choice, and showing significant advantages for patients with large SMTs at hard-to-reach locations.
Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP240V Endoscopic gastroyeyunostomy and pyloric exclusion with the OverStitch system after refractory duodenal perforation in a fragile patient

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DOI 10.1055/s-0044-1782911

Abstract Text Case description: An 86-year-old non-surgical male was admitted with an extensive duodenal perforation. A conservative approach with percutaneous drainage and endoscopic management was chosen. After failed duodenal stents, exclusion of the duodenal transit by pyloric closure with the OverStitch system and a creation of a new enteric anastomosis with a USE-Gastroenterostomy (USE-GE) was decided. The pyloric closure was strengthened with additional sutures in two consecutive sessions. Complete sealing allowed removal of the pigtail.
Conclusions Transit exclusion using the OverStitch system may be a valid option in complex duodenal fistulas, allowing the USE-GE to create an alternative transit thus maintaining the patient's enteral nutrition.

Endoscopy 2024; 56: S1–S503

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/bcbc8dad-aa2c-4a7f-814b-c2d484d3f14e/Uploads/13821__Pyloric%20exclusion.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP241 Comparison of the efficacy and safety of endoscopic management of fistulas after bariatric surgery with the Luso-Cor and conventional covered metallic stents

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DOI 10.1055/s-0044-1782912

Aims Fistulas after bariatric surgery may develop in upto 4.9 % patients. A primarily endoscopic approach to manage these fistulas is successful in 2/3 of patients but is burdensome. The Luso-Cor(R) esophagealstent (LCES) was designed to manage fistulas and strictures while taking into account the altered anatomy after bariatric and gastric oncologic surgery. We aimed to compare the efficacy and safety of management of post bariatric surgery fistulas with the LCES and other metallic covered stents (CS).

Methods Multicentre retrospective analysis involving 74 consecutive patients undergoing primarily endoscopic management of fistulas after bariatric surgery between March2009-January2022. Fourteen patients were not managed with stents. The final study cohort included 60 patients (LCES (n = 13) and CS (n = 47)). Technical success was defined as stent placement with effective exclusion of fistula orifice. Clinical success was defined as closure of fistula orifice after stent removal. Qualitative variables were evaluated with Chi-square test. Quantitative variables with non-normal distribution were expressed as medianand evaluated with Mann-Whitney's test. A p-value < 0.05 was considered statistically significant (IBM SPSS28).

Results The median age was 44 (17-67) and 80 % (59) were female. There were no differences in gender (p = 0.61) or age (p = 0.15) between the two groups. There were no differences regarding median time to detect fistula (6.5 days in LCES and 7.0 days in CS group, p = 0.86) or fistula size (4.0mm in LCES vs 5.0mm in CS groups, p = 0.38).There were no differences in the location of fistulas in the two groups with majority of fistulas located at the cardia (p = 0.83). An additional clip was placed in 79 % (11) cases in LCES group compared to 28 % (13) in CS group (p < 0.001).

Technical success was 100 % (13) and 81 % (38) in LCES and CS groups (p = 0.06). There was a trend for a lower incidence of early adverse events (within 1 week) in the LCES compared to CS group (8 % (1) vs 24 % (12), p = 0.06)) as well as late adverse events (33 % (4) vs 34 % (16), p = 0.12). There was a trend for lower incidence of stent induced stricture with the LCES group compared to CS group (8 % (1) vs 13 % (6), p = 0.61). One patient died due aorto-esophageal fistula 3cm above the proximal edge of the stent in the LCES group and to 2 patients died due to sepsis in the CS group.

Clinical success was 100 % (13) in LCES, compared to 87 %(n = 41) in CS groups (p = 0.36) with a trend for lower number of endoscopies (3 (1-7) vs 4.0 (1-8), p = 0.13) and a shorter time till fistula closure (6 (2-49) vs 14 (5-192) weeks, p = 0.39)).

Conclusions The Luso-Cor esophageal stent was highly effective in closing fistulas after bariatric surgery with a trend for lower incidence of adverse events, lower number of endoscopies as well as shorter duration of time till fistula closure. Larger multi-centre studies are required to confirm these promising findings.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP242V First Clinical Application of a Novel Duodenal Mucosal Ablation Device for Type 2 Diabetes Using Radiofrequency Vapor Ablation: A Video-Case

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DOI 10.1055/s-0044-1782913

Abstract Text Duodenal mucosal ablation is an emerging endoscopic technique in the management of metabolic disease, providing promising results for type 2 diabetes (T2D) control. A novel through the scope (TTS) ablation device, the circumferential radiofrequency (RF) vapor ablation system (Aqua Medical, California, USA) is currently under evaluation in a first in human clinical trial. We present a patient with poorly controlled T2D, who underwent the procedure using a double-channel upper endoscope. This new circumferential RF vapor ablation system for duodenal ablation adds another promising intervention for T2D. Results from the first-in-human STEAM T2D trial will inform overall safety and efficacy.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/476245b8-9ad7-4a38-8cd3-33db8ae3863a/Uploads/13821_Video.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP243 Endoscopic Sleeve Gastroplasty: can we predict its efficacy at an early stage?

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DOI 10.1055/s-0044-1782914

Aims Obesity is a complex multifactorial disease requiring a multidisciplinary approach. Endoscopic Sleeve Gastroplasty (ESG) is an effective, minimally invasive bariatric procedure for the treatment of obesity. However, not all subjects achieve the same results. Factors related to better outcomes after ESG are poorly understood. According to the literature, the efficacy threshold for a "primary" bariatric procedure is a %EWL of 25 % at 12 months. Identifying baseline and early predictors of success may improve weight loss outcomes through a smart selection of patients as well as the identification of poor responders who may need additional treatment. This study aims to investigate the presence of any baseline or early indicators of long-term favourable or unfavourable responses to ESG.

Methods We conducted a retrospective analysis on a prospective dataset, including ESG procedures performed from May 2017 to March 2022. Our population was divided into two categories, namely "good responders" and "poor responders". As most of our patients showed %EWL ≥ 25 % at 24 months, the median %EWL value at 24 months was used as the threshold for success definition, providing greater statistical power. The Wilcoxon rank sum for continuous variables and the Fisher's exact test or Pearson's Chi-squared test for percentages were used for comparisons between groups, as appropriate.

Results A total of 315 subjects (73 % female) were included, with 73 % of patients showing an %EWL ≥ 25 % at 24 months. The median value of %EWL was

39.4 % at 24 months, which was used to divide "good" and "poor responders". No baseline parameters proved potential predictive value, including age, gender, smoking habits, menopause in women, or the presence of co-morbidities (i.e. diabetes mellitus, hyperinsulinemia, hypertension, obstructive apnea syndrome). Interestingly, the %EWL at one month after ESG was the strongest predictor of 24-month therapeutic success. The Youden's Index method allowed us to estimate an "early threshold for success" of 37.1 % for one month- %EWL. As such, we suggest that patients who fail to achieve this %EWL cut-off at 1 month are at risk of poor outcomes in the long term.

Conclusions Early weight loss seems to predict long-term outcomes of ESG. Early identification of patients at risk of poor response is crucial to optimize post-operative multidisciplinary care. For instance, this category of subjects may benefit from additional treatments such as medications like GLP-1 analogues, psychological support, or redo ESG to improve long-term outcomes.

Conflicts of interest Ivo Boskoski is a consultant for Apollo Endosurgery, Boston Scientific, Nitinotes, Pentax, Cook Medical, Microtech, ERBE, and Endo Tools Therapeutics Cristiano Spada is a consultant for Medtronic and AnX Robotics and received speaker's fees from Olympus and Pentax

OP244V Novel Approach for weight reduction in post Roux -en-Y Gastric Bypass (RYGB) with weight regain- A combination of Bariatric Anastomotic Reduction System(BARS) with Endoscopic sleeve gastroplasty (ESG) of residual gastric pouch

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DOI 10.1055/s-0044-1782915

Abstract Text Significant weight regain (WR) with relapse of obesity-related complications has become relevant issue in one-third of the patients after RYGB. The underlying causes for WR are the anatomic factors, dilation of the GJ (>20 m) and pouch dilation have been shown to be a major factors (1). Endoscopic reduction of the anastomotic site size between the gastric reservoir and the jejunum is a possible option to slow down bypass of food and endoscopic resizing of the residual gastric pouch would be an option to regain the restrictive effect of gastric bypass [1–3].

Here we present a case of Post RYGB weight regain managed successfully with Novel approach of combination of BARS with ESG of residual gastric pouch.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/33e8e4f0-38c7-4835-9610-41739d38bf8f/Uploads/13821_bars.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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Upper GI Subepithelial Lesions: From Diagnosis to Resection

26/04/2024, 16:45 – 17:45 **Room 8**

OP215 Preliminary data from a multicenter Italian study: use of EUS-Elastography and Contrast in the differential diagnosis of SELs

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Aims Distinguishing gastrointestinal subepithelial lesions (GI-SELs) poses a clinical challenge because Endoscopic Ultrasound (EUS) is adept at detecting them but may fall short in providing effective differentiation. New methodologies have been introduced which provide further details and potential prognostic information. Elastography (EUS-E) allows to carry out a qualitative and semi-quantitative assessment of tissue stiffness, but for now only a few studies have examined its role in the diagnosis of SELs. Recent findings indicate that contrast agents enhance the diagnostic accuracy of EUS (CE-EUS) for SELs. The purpose of the study is to examine the performance of the EUS-E and CE-EUS in differentiating GI-SELs, and in particular gastrointestinal stromal tumors (GISTs).

Methods From March 2021 to June 2023, all patients referred to 4 Italian Institutions for EUS-guided fine needle biopsy (FNB) of GI-SELs who agreed to participate in the study were prospectively enrolled. Endosonographic patterns were compared with the analysis of the histological samples taken through FNB or subsequent endoscopic/surgical resection. Sensitivity (Se), specificity (Sp) and accuracy (Ac) of an increasing number of variables in the diagnosis of GIST were then evaluated.

Results We present the data of the first 56 enlisted patients. The cohort had a balanced M:F ratio of 1, with a median age of 65 years (range: 26-85). Lesions' median size was 29 mm (12-90), 38 were detected in the stomach, while 9 in the duodenum and 9 in the esophagus. All lesions were solid and 51 of them originated from the muscolaris propria, 52 were hypoechoic. Qualitative elastography (based on color) revealed homogeneous blue (stiff) lesion in 40 cases, 1 green (soft) lesion and 15 mixed lesions. During contrast infusion, 40 lesions showed hyper-enhancement, 9 hypo-enhancement and 7 iso-enhancement; contrast distribution was evaluated as inhomogeneous in 32 cases. Final diagnosis showed 38 GISTs, 10 leiomyomas and 8 among lipomas, NETs and others. The basic characteristics of EUS (origin 4th layer and hypo-echogenicity) have a Se, Sp and Ac of 94,7 %, 22,2 % and 71,5 % respectively; qualitative elastography showed Se, Sp and Ac of 71,1 %, 44,4 % and 62,5 % respectively; elastography plus CE-hyperenhancement corresponded to Se, Sp and Ac of 61,1 %, 66,7 %

and 63,0 %; and if contrast diffusion was also evaluated as inhomogeneous Se, Sp and Ac were 41,7 %, 83,3 % and 55,5 % respectively. [1–4]

Conclusions Our findings indicate that EUS alone is highly sensitive and reasonably accurate in detecting GISTs, albeit lacking specificity. However, when dealing with a lesion that raises suspicion for GIST, employing certain enhancing EUS techniques can significantly enhance specificity. This can be of help in the decision-making process, especially where a biopsy is not technically easy to obtain, but, in the concrete suspicion of a GIST, it is of fundamental importance to obtain it.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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[4] Study code: SUNNYDAY 021-FPO20

OP216V Application of a new Endoscopic Suturing Device for removal of gastric SELS

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DOI 10.1055/s-0044-1782917

Abstract Text Achieving surgical-type sutures during invasive endoscopic procedures (dissection, full-thickness, NOTES) has always been a goal, even a dream, of interventional endoscopists. In this video, we describe a new endoscopic suturing device that can be used to close parietal defects (mucosal and muscular) in different gastric positions. It consists of a disposable Needle Holder and auto-locking surgical thread. The 3 cases correspond to full-thickness resections of SELs or GISTs at gastric antral, corporeal, and cardial sites. After resection using hybrid techniques (excavation, dissection), the parietal defect was closed with the help of SutuArt (Olympus). The new hand suture system appears to be effective in closure of gastric mucosal and muscular defects, and could find other endoscopic digestive applications.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/c8d8da13-ca94-40ec-be84-81fce02019bb/Uploads/13821_Deprez_ESGE%20days%202024%20Suture%20SELs.wmv

Conflicts of interest Teaching fees from Olympus company

OP217 Safety, technical efficacy and long-term clinical outcomes of endoscopic therapy for foregut Neuroendocrine Tumors (NETs)

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DOI 10.1055/s-0044-1782918

Aims Early, localized neuroendocrine tumors (NETs) arising from foregut (stomach/duodenum/ampullary) are amenable to endoscopic treatment due to low frequency of lymph node and distant metastases. Dearth of literature on technical feasibility, safety and long-term outcomes of endoscopic resection modalities limits widespread adoption of endo-therapy for foregut NETs. Our objective was to outline the technical challenges and long-term clinical outcomes of endo-therapy for foregut NETs.

Methods Prospective, single-centre study of consecutive patients undergoing endo-therapy for foregut NETs over 11 years (January 2012-January 2023). Demography, clinical presentation, location, lesion size, number, EUS-layer of origin, endoscopic treatment modality, complications, resection margins, histology recorded. All patients followed up periodically (3, 6, 12 months and annually thereafter) for assessment of recurrence and need for re-intervention. Endo-therapy modalities included conventional Endoscopic Mucosal Resection (EMR), Ligation-EMR, Cap-EMR, Snare-ampullectomy, Hybrid-Endoscopic Submucosal Dissection (ESD), ESD, Exposed Endoscopic full thickness resection (EFTR) and device-FTR (FTRD).

Results 120 NETs addressed endoscopically in n = 72 patients (30.6 % > 1 lesion, median age 57 years (50.3–65), 69.4 % males). Distribution-duodenal bulb (66.7 %), descending duodenum (17.5 %), stomach (12.5 %), ampulla (3.3 %). Presentation–incidental (74.3 %), symptomatic (GI bleed/anaemia/chronic diarrhoea (25.7 %). Median size 12mm (10-15.75), macroscopic appearance-Yamada Type I/II (92.5 %), Type III/IV (7.5 %). Layer of origin (Submucosa 73.3 %, Muscularis propria 6.6 %). Resection modalities- ESD (n = 47), Hybrid-ESD (n = 6), Cap-EMR (n = 5), ligation-EMR (n = 21), conventional-EMR (n = 8), exposed-EFTR (n = 9), device-FTR (n = 8), Snare-ampullectomy (n = 4). Adverse events–inadvertent muscle defects (10.8 %)-primary closure; delayed bleeding (4.1 %)-endo-therapy. Enbloc resection- 92.9 %. R0-85.9 %,R1-14.1 %, Histology–G1 (75.6 %), G2 (18.9 %), perineural/lymphovascular invasion-none. Median follow-up 25 months (11-63). Recurrence- n = 8 (11.1 %); New lesion-n = 4 (5.5 %). [n = 3–conservative management with depot octreotide; n = 1–partial response to PRRT, n = 5 managed endoscopically, n = 3 surgery]. 5.5 % had > 1 episode of recurrence. Logistic regression analysis revealed that lesion size, number, location and histological grade did not impact resection margins (p = NS). Muscularis propria involvement on EUS was the only factor associated with higher incidence of R1 resection (OR 7.8, 95 % CI 1.12-54.62, p = 0.037).

Conclusions Endoscopic resection for foregut NETs using a carefully selected modality is safe and effective and demonstrates low recurrence rate on long-term follow up. MP layer invasion is a high risk factor for incomplete resection.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP218V Successful management of a full-thickness muscularis propria defect with an omental patch after endoscopic resection of an 50 mm gastric GIST

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Abstract Text A 69 year old female received an upper GI endoscopy; a 50 mm, submucosal, ulcerated, bulky, lesion was found in the gastric body. CT scan confirmed a gastric GIST without loco-regional lymph nodes or metastasis. Submucosal Tunnelling Endoscopic Resection (STER) was attempted but due to the ulceration completion was not feasible. During tunnelling, tumour involvement of the muscularis propria was revealed. The dissection was completed from the muscularis resulting in a large full-thickness defect of the gastric wall. Due to the size of the defect closure was difficult and successfully achieved with an omental patch fixed with through the scope endoscopic clips. Histopathology confirmed the GIST (pT2NX, mitotic index of 4 per 5 mm²). MDT discussion agreed to follow-up. No additional treatment was deemed necessary. 6 months radiologic, endoscopic and histologic follow-up was negative.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/6d2e056b-f3e3-4c5f-aafd-8306cca3e19d/Uploads/13821_esge_days_1080_(1080p).mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP219 Doppler probe and unroofing in the management of gastrointestinal subepithelial lesions

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Aims Subepithelial lesions (SELs) are common and their diagnosis is usually not possible through regular endoscopy and biopsies. As deep biopsies may be associated with severe bleeding, patients are usually referred for endoscopic ultrasound (EUS). EUS is performed to characterize the lesion, its size, structure, location in the wall and vascularity. EUS-fine needle aspiration or biopsy (FNA/FNB) may enable sampling and diagnosis. However, EUS is highly operator dependent, expensive and is only performed in specialized centers. EUS investigations of SEL represent a significant burden for EUS operations. This causes long waiting lists for EUS and increases patient's anxiety. Additionally, diagnostic accuracy of EUS is usually dependent on tissue sampling, being poor in small or polypoid lesions. There is the need for another approach for the assessment of SELs. The ideal solution should be safe, easy to perform, cheaper, non-highly operator dependent and available at first endoscopy (at any center). The doppler endoscopic prove (DEP) can be inserted through a conventional endoscope and enables assessment of vascularity beneath the mucosa in 3 different depth cathegories (superficial/middle/deep). Some studies had proven its efficacy in the management of peptic ulcer.

Methods This was a prospective blind pilot study. Patients referred for EUS due to a gastrointestinal SEL were invited to participate. First, endoscopy was performed and the lesion was characterized using endoscopy and DEP. The results of DEP were classified as 4 negative/superficial/middle/deep. Then, EUS was performed, being the EUSscopist blinded to the previous endoscopic findings. If after EUS, the lesion was considered avascular or poorly vascular, unroofing with biopsies was performed. The primary endpoint was the diagnostic accuracy of DEP (highly vascular or non-highly vascular) and correlation between DEP and EUS findings in terms of SEL vascularization. Secondary endpoints were the accuracy rate and adverse events of unroofing in the histological characterization of SELs.

Results Twenty-eight SELs from twenty-seven patients were included, corresponding 1/14/10/3 SELs in the esophagus/stomach/duodenum/colon, respectively. Regarding the primary endpoints, highly vascular/non-highly vascular for DEP and EUS is 3/25 and 4/24, respectively. The positive predict value (PPV)/negative predict value (NPV) for DEP is 2/3 (67 %) and 23/25 (92 %), respectively. Regarding the secondary endpoints, unroofing enabled histological diagnosis in 24/26 (92 %). Four patients (4/28 14 %) reported pain in the throat. 2/3 high vascular cases for DEP were liver and gall bladder compressions and all 25 non-highly vascular were SELs.

Conclusions This method is safe, feasible and easy to perform and might be available at any center. DEP has a good NPV, being a good tool for the exclusion or vascular lesions. Unroofing is also safe and associated with high accuracy in the diagnosis of SEL. Prospective RCT are warranted before the dissemination of DEP and unroofing.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP220V Successful endoscopic management of a juxta-pyloric lumen obstructing Lipoma using Endoscopic submucosal dissection (ESD)

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Abstract Text 70-y-female – recurrent vomiting episodes post meals; Comorbidities–Obesity, COPD, DM, HTN. EGD – 2 'kissing' lesions – 1 epithelial (15mm, sessile, JNET 2A, posterior antral wall) & 1 sub-epithelial (30mm, pseudopedunculated, juxta-pyloric/anterior antral wall); additionally, SEL – ball valve effect on pyloric ring & prolapse into D1. Posterior wall polyp – underwent EMR(HPE – Adenoma). Juxta-pyloric SEL – underwent ESD. Procedure–supine,-GA, prolapsed SEL repositioned from D1 into antrum; submucosal injection f/b pocket dissection–muscle and mucosal side–en bloc (30mm size) retrieval – hemostasis – incision closure using clips. Post ESD – no complications; Procedure duration – 70min. Clinical recovery – Oral diet resumed on day 1. Discharged after 48 hours. HPE – Lipoma. F/u at 4-wk – asymptomatic. EGD at 4-wk – healed incision site, no GI obstruction.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/67323240-7a2d-4b33-8588-cc4705a32a73/Uploads/13821_ESGE_Days%20Video%20Abstract%20ESD_Final.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

EUS guided biliary drainage: More than a new kid on the block

26/04/2024, 16:45 – 17:45 **Room 11**

OP209 On the way to standardisation of EUS-guided hepaticogastrostomy

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Aims Fistula dilation is one of the key steps when performing EUS-guided hepaticogastrostomy (EUS-HG). Knowing whether there are differences between the existing tools used in EUS-HG dilation may reduce the complexity and adverse events (AEs) associated with this technique.

Methods Retrospective study of all HG-EUS performed in a tertiary centre between 2017 and 2023. The procedure time, technical success clinical success and adverse events associated with different dilatation methods during EUS-HG were evaluated. Dilation methods used were: 4mm balloon dilator, 6F cystotome, filiform catheter (4/7F) or a combination of the previous.

Results Thirty-four patients were included with a technical success rate of 31/34 (91.2 %). Clinical success was 100 % when technical success was achieved. Table 1 shows the methods used for fistula dilatation. There were 7 AE (20.6 %), all early AE and none intra-procedurally. The duration of the procedure was 37.5 (± 15.7) minutes.

A filiform catheter was used in 18 cases and fistula creation was possible in 17 cases (94.4 %). The use of a single method for fistula creation reduced procedure time: 44.24 (± 17) vs 31.8 (± 13.7) min, p = 0.018, but not AE. The use of a filiform catheter alone or in combination with dilatation was associated with a significant reduction in the procedure time: 33.7 ± (15.3) vs 44.6 (± 16.5) min, p = 0.033, as was the rate of AE: 5. 9 % vs 35.7 %, p = 0.036. However, the use of balloon dilatation was associated with a significantly longer duration:42.7 (16.4) vs 31.3 (14.9), and AE: 25 % vs 9.1 %, the latter without statistical significance.

Conclusions The use of a filiform catheter reduces the time and AE associated with EUS-HG. Its use can be recommended over other methods of fistula dilatation in EUS-HG. Standardisation of complex procedures increases safety and allows their use to be extended to other centres.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP210 Endoscopic ultrasound-guided hepaticogastrostomy versus percutaneous transhepatic biliary drainage as a salvage therapy in patients with malignant biliary obstruction

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DOI 10.1055/s-0044-1782923

Aims The current prospective study aims to assess the safety and efficacy of EUS guided -Hepaticogastrostomy (HGS) compared to Percutaneous transhepatic biliary drainage (PTBD) in this setting.

Methods This is a randomized clinical trial carried out at two tertiary medical centers. It involved 92 patients with unresectable malignant biliary obstruction who either failed or were not candidate for ERCP. After enrolment patients were randomized into two groups. Group (1) included 32 patients and underwent EUS-HGS while group (2) included 60 patients and underwent PTBD. The primary outcomes included technical and clinical success rates of the two procedures while the secondary outcomes included adverse events and re-intervention rates in both groups.

Results Of the 92 patients undergoing biliary drainage in our study, 91 patients achieved technical success while there was only 1 technical failure in the EUS-HGS group. Clinical success was attained in 29 patients (93.5 %) in the EUS-HGS group versus 54 patients (90 %) in the PTBD group ($P = .57$). Compared with PTBD group, patients undergoing EUS-HGS required fewer re-interventions (6.5 % vs. 38.3 %, respectively; $P < .001$). However, there was no statistically significant difference between EUS-HGS and PTBD regarding adverse events (15.6 % vs. 26.7 %; $P = .58$).

Conclusions EUS-HGS is an effective therapeutic option with similar success rates but with fewer re-intervention rates than PTBD in patients with malignant biliary obstruction following ERCP failure.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP211 Impact of EUS-guided choledochoduodenostomy versus transpapillary endoscopic biliary drainage on the intra- and post-operative outcome of pancreatoduodenectomy: a multicenter propensity score matched study

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Aims Endoscopic ultrasound-guided choledochoduodenostomy (EUS-CDS) with lumen-apposing metal stents (LAMS) may be used in patients with a distal malignant biliary obstruction in whom either conventional biliary drainage by endoscopic retrograde cholangiopancreatography (ERCP) failed or as primary drainage approach in research setting. [1, 2] Although EUS-CDS has shown promising results, experience with EUS-CDS prior to pancreatoduodenectomy (PD) is still limited. [2–6] Therefore, in daily clinical practice multidisciplinary teams are reluctant to opt for EUS-CDS in patients with potentially resectable tumors. Aim of this study was to assess the impact of EUS-CDS on the intra- and post-operative outcome of PD when compared with transpapillary drainage.

Methods Patients who underwent a PD between January 2020 and December 2022 after preoperative biliary drainage by EUS-CDS were included. Prospectively collected data from patients in the Dutch Pancreatic Cancer Audit were retrospectively analyzed. Primary endpoint was major postoperative complications, defined as Clavien-Dindo score ≥ 3. Secondary endpoints included overall complications, pancreatic surgery specific complications (i.e. postoperative pancreatic fistula, delayed gastric emptying, hemorrhage, and chyle leakage), in-hospital mortality and hospital stay. A propensity score matching (1:4) analysis was performed using patient and tumor characteristics, neoadjuvant therapy, type of stent, and hospital volume. Surgeons who performed a PD in a patient who underwent pre-operative EUS-CDS were requested to fill-out a 5-questions survey directly after the surgical procedure.

Results Overall, 641 patients after PD were included of whom 34 (5.3 %) underwent EUS-CDS. Major postoperative complications occurred in 174 patients (28.7 %) in the ERCP group and 6 patients (17.6 %) in the EUS-CDS group (RR 0.55; 95 % CI, 0.23-1.30). No significant differences were observed between the groups in the secondary endpoints. Time between biliary drainage and surgery in patients without neoadjuvant therapy differed significantly between the ERCP group (median 39 days; IQR, 28-52) and EUS-CDS group (32 days; IQR, 21.5-39.5; p = 0.021). Operative time was shorter in the EUS-CDS group (mean 329 min [SD 88] vs 299 min [SD 68]; p = 0.004). Results were similar after propensity-score matching.

The survey was completed in 25 PD's after EUS-CDS. In the majority (n = 19, 76 %) there was no direct visualization of the stent during the PD. In most patients, the resection was not (n = 13, 52 %) or slightly (n = 7, 28 %) considered complicated by the LAMS according to the surgeon. The stent did not hamper the creation of the hepaticojejunostomy.

Conclusions This nationwide retrospective study found EUS-CDS to be safe without increase in (major) postoperative complications after PD as compared to ERCP. Moreover, surgeons did not encounter evident difficulties during most of the resections. These data will have to be confirmed in a randomized trial.

Conflicts of interest Jeska A. Fritzsche, Mike J.P. de Jong, Bert A. Bonsing, Olivier R.C. Busch, Foke van Delft, Wouter J.M. Derksen, Joris I. Erdmann, Sebastiaan Festen, Geert Kazemier, Sjoerd D. Kuiken, Mike S.L Liem, Daan J. Lips, Wouter te Riele, Hjalmar van Santvoort, Niels G. Venneman, Frank P. Vleggaar, Marc G. Besselink have no conlficts of interest or financial ties to disclose. Freek Daams reports research grants from Medtronic, and received speaker 's fees from Medtronic, and proctoring fees from Intuitive. Paul Fockens performed as a consultant for Olympus and Cook Endoscopy. Erwin M. van Geenen reports research grants from Olympus, Boston Scientific, and MTW Endoskopie. Peter D. Siersema reports research grants from Pentax and Fujifilm. Roy L.J. van Wanrooij performed as a consultant for Boston Scientific. Rogier P. Voermans reports research grants from Boston Scientific and Prion Medical, performed as

a consultant for Boston Scientific, and received speaker's fees from Mylan and Zambon. All outside the submitted work.

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OP212 EUS- versus ERCP-guided biliary drainage for malignant biliary obstruction: a systematic review and meta-analysis of randomized controlled trials

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Aims This systematic review and meta-analysis aimed to compare the efficacy and safety of endoscopic ultrasound-guided biliary drainage (EUS-BD) and endoscopic retrograde cholangiopancreatography-guided biliary drainage (ERCP-BD) as the initial approach for malignant biliary obstruction (MBO).

Methods MEDLINE, Embase, and Cochrane databases were searched for randomized controlled trials comparing both techniques as the initial approach for MBO and reporting at least one of the outcomes of interest. The primary outcome was the stent patency. Secondary outcomes were technical and clinical success, reintervention, overall adverse events (AEs), post-procedure pancreatitis, cholangitis, tumor in/overgrowth, procedure time, length of hospital stay (LOS), and survival time. The risk ratio (RR) and mean difference (MD) were applied with their 95 % confidence intervals (95 % CIs) for dichotomous and continuous outcomes, respectively, using a random-effects model. We performed sensitivity analysis if $I^2 \geq 50$ % and subgroup assessments based on the etiology of the MBO (studies with > 90 % vs. studies with < 65 % of the sample due to pancreatic cancer [PC]), and the EUS-BD technique used (choledochoduodenostomy with lumen-apposing metal stent [CDS-LAMS] vs. CDS with fully or partially covered self-expandable metal stent [CDS-FC/PCSEMS] vs. hepaticogastrostomy with FC/PCSEMS [HGS-FC/PCSEMS]). We deemed $p < 0.05$ statistically significant.

Results We included 6 trials (577 patients). The groups presented non-significant differences regarding stent patency (MD 8.18 days; 95 % CI -22.55, 38.91), procedure time (MD -6.31 minutes; 95 % CI -12.68, 0.06), and survival time (MD 4.59 days; 95 % CI -34.23, 43.40), and they showed similar risk of technical success (RR 1.04; 95 % CI 0.96, 1.13), clinical success (RR 1.02; 95 % CI 0.96, 1.08), overall AEs (RR 0.58; 95 % CI 0.24, 1.43), and cholangitis (RR 1.19; 95 % CI 0.39, 3.61). Nevertheless, the risk of reintervention (RR 0.57; 95 % CI 0.37, 0.88), post-procedure pancreatitis (RR 0.15; 95 % CI 0.03, 0.66), and tumor in/overgrowth (RR 0.28; 95 % CI 0.11, 0.70) were significantly lower, and the LOS was significantly shorter (MD -1.03 days; 95 % CI -1.53, -0.53) with EUS-BD compared to ERCP-BD. Among the studies with > 90 % of PC as the etiology of the MBO, there was a non-significant difference in the effect estimates between EUS-BD and ERCP-BD. However, in the subgroup of studies that included a lower rate of PC, EUS-BD showed a reduced risk of AEs and need for reintervention compared with ERCP-BD. Additionally, the subgroup analysis by the type of EUS-BD showed that only CDS-LAMS significantly reduced the procedure time and increased the technical success compared to ERCP-BD. [1–6]

Conclusions Although it demonstrated clinical efficacy comparable to ERCP-BD, EUS-BD resulted in a significantly lower risk of reintervention, post-procedure pancreatitis, tumor in/overgrowth rates, and reduced LOS.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP213 EUS-guided choledochoduodenostomy for primary drainage of malignant distal biliary obstruction (SCORPION-II-p): a prospective pilot study using FCSEMS through LAMS

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Aims EUS-guided choledochoduodenostomy (EUS-CDS) with a lumen-apposing metal stent (LAMS) is an alternative for ERCP in patients with a malignant distal biliary obstruction (MBO). [1, 2] The main drawback of EUS-CDS using

LAMS is the high rate of stent dysfunction which leads to cholangitis and reinterventions. [3, 4] Presumably, the short length and perpendicular angle of the LAMS to the bile duct contribute to the risk of stent dysfunction. [5] Therefore, the aim was to investigate whether placement of a fully covered self-expandable metal stent (FCSEMS) through the LAMS, thereby changing the axis of biliary drainage towards the descending duodenum, will decrease the risk of stent dysfunction while maintaining high technical success and low adverse event rates.

Methods We performed a prospective pilot study in patients with proven MBO and a bile duct diameter of at least 12mm, requiring biliary drainage, excluding patients with gastric outlet obstruction. Patients underwent biliary drainage with (as first procedure) EUS-CDS using a 6 or 8 mm LAMS with a 6 cm by 8 or 10 mm FCSEMS placed through the LAMS. Primary outcome was stent dysfunction, defined as recurrent jaundice after initial clinical success, ongoing jaundice in combination with persistent dilatation of the bile ducts, or cholangitis. Secondary outcomes were technical success, clinical success, and adverse events (AEs).

Results Overall, 27 consecutive patients with MBO were enrolled with a median bile duct diameter of 16 mm (IQR 15-18) and bilirubin level of 224 µmol/L (IQR 182-336.5) prior to the intervention. All tumor stages were included.

Technical success of EUS-CDS with LAMS was achieved in 24/27 patients (89 %), placement of FCSEMS through the LAMS was successful in 20/24 (83 %), in the remaining 4 patients a coaxial double pigtail stent (DPS) was placed. Periprocedural AEs occurred in 3 patients (11 %) due to LAMS maldeployment which was solved intraprocedurally in all patients. In 1 patient this led to biliary peritonitis and fluid collections requiring percutaneous drainage, the other 2 patients recovered uneventfully.

Clinical success was achieved in 18/20 patients (90 %). In 2 patients with LAMS with FCSEMS there was persistent cholestasis in need of stent revision (10 %). Stent dysfunction was not observed in any of the other patients (8 % in total cohort [2/24]). Two patients experienced cholecystitis within 30 days after the procedure (10 %), one patient who also had concomitant kidney failure subsequently deceased. The other patient recovered after antibiotics and percutaneous drainage. Two other patients deceased within 30 days which was unrelated to the procedure.

Conclusions This study showed a stent dysfunction rate of 10 % following technically successful EUS-CDS with placement of a FCSEMS through the LAMS. Improving the LAMS design may reduce the rate of stent dysfunction by improving the direction of bile flow through the stent towards the descending duodenum.

Conflicts of interest Jeska A. Fritzsche, Marc G. Besselink, Olivier R.C. Busch and Freek Daams have no conflicts of interest or financial ties to disclose. Freek Daams reports research grants from Medtronic, and received speaker ‘s fees from Medtronic, and proctoring fees from Intuitive. Paul Fockens performed as a consultant for Olympus and Cook Endoscopy. Johanna W. Wilmink reports research grants from Servier, Merck, Nordic and Astra Zeneca. Rogier P. Voermans reports research grants from Boston Scientific and Prion Medical, performed as a consultant for Boston Scientific, and received speaker’s fees from Mylan and Zambon. Roy L.J. van Wanrooij performed as a consultant for Boston Scientific. All outside the submitted work.

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OP214 Endoscopic ultrasound guided choledocoduodenostomy (CD) versus hepaticogastrostomies (HG) in distal malignant biliary obstruction: is it only a matter of expertise?

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Aims Endoscopic retrograde drainage remains the first line treatment in distal malignant biliary obstructions (DMBO). However, recent series increasingly evaluate and propose EUS-CD as serious alternative, particularly in center with limited experience in EUS-HG. Indeed, randomized study demonstrated equivalent clinical efficacy and safety between ERCP and EUS-CD, without the risk of acute pancreatitis. However, in the case of duodenal stenosis, CD dysfunctions were observed, and EUS-HG seems the best option, but requires a higher level of expertise. We conducted this study to evaluate these two techniques in two centers with different level of expertise in EUS-HG.

Methods This is a retrospective observational study conducted in two French high-volume centers for biliary drainage. One has expertise in EUS-HG (EUS-HG group of patients), the other one having limited experience prioritizing EUS-CD (EUS-CD group). All patients analyzed underwent EUSBD for DMBO with jaundice, distributed in two groups of procedure: HG and CD. The main objective was to compare the clinical outcome of both techniques in managing DMBO, according to the level of expertise. The secondary objectives were to assess technical outcomes and identify other factors influencing these outcomes, particularly the impact of duodenal stenosis on biliary reintervention rate.

Results A total of 165 patients (137 in EUS-CD group; 38 in EUS-HG group) were included, 55.8 % of men, with mean age 72.7 ± 11.11 years old. The main origin of DMBO was pancreatic adenocarcinoma in 77 %. Prior ERCP was attempted in 60 % of patients. At baseline, both groups were comparable on age, gender, type of tumor and ASA score. The rate of duodenal stricture was higher in the EUS-HG group: 33 % versus 70 % ($p < 0.001$), and the bilirubin level was higher in EUS-CD group: 280 vs 180 umol/l ($p < 0.001$).

EUS-CD were performed using 6 or 8mm Axios stents (Boston, USA) and EUS-HG using 6 French cystotome and partially covered metal stents. Overall technical and clinical success rate were 98 % and 93 %, respectively, and similar whatever the procedure. The perioperative adverse event (AE) rate was 6 %, essentially in EUS-CD, whereas the postoperative AEs rate was 12 %, mostly in EUS-HG. During follow-up 27 % of patient required duodenal stenting.

When comparing the groups after matching on age, gender, level of bilirubin and type of lesion, we observed in the EUS-CD group significantly more need for duodenal stenting, 68,4 % vs. 45.9 % ($p < 0.05$), and more biliary reinterventions, 29.4 % vs. 7.9 % ($p < 0.05$), respectively. No difference was observed in the survival time.

Conclusions This study suggests that EUS-CD and EUS-HG have similar technical and clinical outcomes according to the center’s expertise. However, in the case of duodenal stenosis, EUS-HG comes with less biliary obstruction, thus less reintervention rate. In these situations, expertise in EUS-HG is required.

Conflicts of interest Authors do not have any conflict of interest to disclose.

ERCP: Optimizing deep cannulation and ampullectomy

26/04/2024, 16:45 – 17:45 Room 6 & 7

OP203 Difficult cannulation during endoscopic retrograde cholangiopancreatography – needle knife fistulotomy versus transpancreatic sphincterotomy on the basis of successful cannulation and adverse events

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DOI 10.1055/s-0044-1782928

Aims When cannulation is difficult in endoscopic retrograde cholangiopancreatography (ERCP) and standard guidewire technique with sphincterotomy is unsuccessful, alternative cannulation techniques must be employed to access the biliary tree. The objective of this study was to compare the frequency of adverse events and the success rates of cannulation between transpancreatic sphincterotomy (TPS) and needle knife sphincterotomy (NKS).

Methods Data from GallRiks, the Swedish Registry for Gallstone Surgery and ERCP collected from 2011 to 2022 were analyzed. 105,303 ERCP procedures were recorded in GallRiks throughout the study period. Exclusion criteria consisted of non-juvenile papilla, cannulation assistance, altering surgery, pancreatic duct intention and other sphincter manipulation. After exclusion, 45,543 ERCP procedures formed the study population. Out of these, 4,696 received NKS and 3,411 received TPS. 35,436 ERCP procedures with conventional sphincterotomy were used as a control group. Primary outcomes were successful cannulation and 30-day adverse events.

Results Successful cannulation was more frequent with the TPS technique than with the NKS technique (86.5 % vs 69.4 %, P < .001). The TPS group had a longer procedure time compared to the NKS group (50.3 minutes vs. 47.9 minutes, P < .001). Both the NKS and TPS procedures had a higher rate of intraprocedural complications in comparison to the control group (5.2 % vs. 4.3 % vs 2.3 %, P < .001). The TPS group had a higher occurrence of adverse events compared to the NKS group (24.1 % vs. 18.8 %, P < .001) and both groups had a higher incidence of adverse events compared to the control group (15.5 %, P < .001). The subgroup analysis revealed significant differences in the frequency of pancreatitis (10.2 % vs. 6.3 %, P < .001) and perforation (1.6 % vs. 0.8 %, P < .001) between the NKS and TPS groups. However, there were no differences in the rates of cholangitis or bleeding. [1–6]

Conclusions Although not performed in the same difficult cannulation ERCP scenarios, TPS appears to be more successful at cannulation. However, this comes at a higher cost of overall adverse events, particularly increased risks of both pancreatitis and perforation. Therefore, the procedure should be reserved only for particularly difficult situations and executed exclusively by skilled endoscopists who take all necessary prophylactic measures.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP204 Duodenal major papilla morphology can predict ERCP procedural outcomes and adverse events, a prospective study

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DOI 10.1055/s-0044-1782929

Aims We aimed to assess whether papillary morphology predicts ERCP procedural outcomes and adverse events.

Methods A prospective analysis was performed of patients undergoing ERCP for biliary indications. Patients were included if they received therapeutic ERCP and had naïve major duodenal papilla. We used Haraldsson's classification for papilla morphology, as follows: Regular (Type 1), Small (Type 2), Protruding or Pendulous (Type 3) and Creased or Ridged (Type 4). The primary outcome was failing SBC and post-ERCP pancreatitis (PEP), with secondary outcomes including other adverse events and procedural outcomes such as inadvertent pancreatic duct cannulation, cannulation time, and attempts.

Results A total of 246 cases were included. Age, gender, indications and therapeutic procedures were not different among the four types of papillae. The failure rates of SBC with Type 3 papilla and Type 4 papilla were 9.61 % and 5.25 %, respectively. In the multivariate analysis, Type 2 papilla (odd ratio 6.78, p = 0.031) and Type 3 papilla (odd ratio 6.84, p = 0.016) were associated with greater SBC failure compared with Type 1 papilla. Malignant obstruction compared to stone (odds ratio 6.35, p = 0.011) and age (odd ratio = 2.11, p = 0.021) were also risk factors for cannulation failure. Type 2 papilla was correlated with a higher rate of post-ERCP pancreatitis (20 %, p = 0.012) compared to the other types of papilla However, papilla morphology was not a significant risk factor for any complications in the multivariate analysis. [1–2]

Conclusions Small papilla and protruding or pendulous papilla are more difficult to cannulate compared to regular papilla. Small papilla is associated with a higher rate of post-ERCP pancreatitis. Understanding this is key for managing intraprocedural approaches and minimizing adverse events.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP205 Optimal timing for a second ERCP after failure of initial biliary cannulation following precut sphincterotomy in difficult biliary cannulation: a randomized clinical trial

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DOI 10.1055/s-0044-1782930

Endoscopy 2024; 56: S1–S503

Aims Precut sphincterotomy is a technique usually employed for difficult biliary cannulation during endoscopic retrograde cholangiopancreatography (ERCP), it increases the success of deep biliary cannulation, but the method fails at the initial ERCP in 5-12 % of cases. Although other invasive strategies are often used to access the bile duct, a second ERCP may be effective and safe. We evaluated the efficacy, safety, and factors related to a second ERCP after failed cannulation using a precut sphincterotomy.

Methods In this prospective, monocenter, randomized, clinical trial, patients who were referred for therapeutic biliary ERCP and difficult biliary cannulation with failed cannulation after precut, a second ERCP was performed. They were randomized to early repeat ERCP within 4 days (Group A) or after 7 days after precut (Group B). Efficacy was based on the cannulation rate of the second ERCP, and safety was assessed in terms of adverse events.

Results We identified 238 patients with failed cannulation after precut, and a second ERCP was performed in 154(64.7 %). Pancreatitis post ERCP developed in 5 of the 77 patients (6.4 %) in Group A and 11 of the 77 (14.8 %) in Group B (odds ratio [OR] 0.55; 95 % confidence interval [CI] 0.16–0.78). The incidence of PEP was significantly lower in the early precut group (5/77, 6.4 %) than in the delayed precut subgroup (11/77 [14.8 %]; OR 0.42, 95 % CI 0.17–1.07). There were no differences in biliary cannulation success rates, bleeding, perforation, and cholangitis.

Conclusions A second ERCP after failure of initial biliary cannulation following precut appears to be safe and effective. early precut can significantly reduce the incidence of PEP. Repeated biliary cannulation attempts are a real risk factor for this complication.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP206 Electrochemical in-situ intraoperative testing during ERCP for safer cannulation: A Novel Approach Using Multi-Pole Electrodes and Electrochemical Impedance Spectroscopy

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DOI 10.1055/s-0044-1782931

Aims Inadvertent pancreatic duct cannulation is a common unwanted event during ERCP procedures that may increase the rates of complications. This study introduces a novel method for guiding ERCP navigation by employing multi-polar electrodes to measure the electrical properties of bile and pancreatic juices through Electrochemical Impedance Spectroscopy (EIS). The method is intended for use during ERCP to alert the user about pancreatic duct proximity and help in directing the position of the sphincterotome for selective biliary canulation

Methods Data from 10 patients were collected in Galilee Medical Center, with 3 excluded due to specific inclusion criteria. The study aimed to obtain at least two juice samples from each patient, including bile juice and either mixed juice from the papilla or pancreatic juice in cases of inadvertent cannulation of the pancreatic duct. Juices were collected based on the Gastroendoscopist's clinical impression about the probe location and X-ray confirmation for proper positioning before juice collection. Subsequently, electrodes were dipped into the collected juices, and EIS measurements were performed between 100 Hz up to 180 KHz.

Results Overall, 7 patients were included in the final analysis. All patients had biliary juice obtained, 6 patients had mixed papillary juice obtained, and 2 patients had pancreatic juice obtained. The magnitude values of all juices through EIS measurements were examined. Analysis revealed that our multi-pole sensors successfully differentiated between bile and pancreatic/mixed juices. The average Impedance magnitude was 10970.9 ± 4938.8 OHM for biliary juice, 8010.3 ± 1737.3 OHM for mixed papillary juice, and 26662 ± 17738.5 OHM for pancreatic juice (P = 0.09 for biliary vs. mixed juice, P = 0.02 for biliary vs. pancreatic juice, and P = 0.01 for mixed vs. pancreatic juice). Based on these results, a future sensor-based navigation kit will be planned to aim for better selective biliary canulation, thus avoiding unintended canulation of the pancreatic duct.

Conclusions Our study demonstrates the promising potential of this electrochemical navigation method to provide selective and safe biliary cannulation during ERCP procedures. Further research and validation are warranted to establish its clinical applicability and benefits.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP207 Double guide-wire technique versus transpancreatic biliary sphincterotomy for difficult biliary cannulation: a randomized controlled trial

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DOI 10.1055/s-0044-1782932

Aims During endoscopic retrograde cholangiopancreatography (ERCP) for biliary indication, difficult biliary cannulation with an unintended access to the main pancreatic duct (PD) increases the risk of post-ERCP pancreatitis (PEP). Both double guidewire technique (DGW) and transpancreatic biliary sphincterotomy (TPBS) can be performed. The purpose of this prospective, randomized, controlled trial is to compare the technical success and adverse events (AEs) rate of these techniques.

Methods Patients with native papilla and planned CBD cannulation were recruited from January 2021 and July 2023. An experienced endoscopist attempted CBD cannulation with wire-guided cannulation. If the procedure fulfilled the definition of difficult cannulation and a guidewire entered the pancreatic duct, randomization to either TPBS or to DGW was performed. If the randomized method failed, any method available was performed. The primary end point was the frequency of PEP and the secondary end points included successful cannulation with the randomized method.

Results Overall, 1082 patients were recruited and 202 patients (56.3 % males, mean age 64.2 years) were evaluated (98 DGW, 104 TPBS). Malignant biliary stricture was the most common ERCP indication (58.2 %). The rate of success in deep biliary cannulation was significantly higher in the TPBS group (96.1 %) compared to DGW(81.2 %) at the first attempt (p = 0.01). No significant difference in AEs rate, particularly in PEP incidence was found between the two groups. PEP developed in 14/104 patients (13.5 %) in the TPBS group and 16/98patients (16.1 %) in the DGW group (*P* = 0.71). No difference existed in PEP severity between the groups.

Conclusions In difficult biliary cannulation, TPBS demonstrated a higher success rate and similar safety profile compared with DGW. there was no difference in PEP rate between TPBS and DGW techniques. TPBS is a good alternative in cases of unintended PD cannulation of difficult cannulation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP208 Endoscopic Ampullectomy: a multi-centred study of tertiary centres across the United Kingdom

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DOI 10.1055/s-0044-1782933

Aims Ampullary tumours are becoming more prevalent with increasing modalities of imaging and endoscopies. Resection of ampullary adenomas are mandatory given the potential for malignancy. A recent systematic review has shown endoscopic ampullectomies complication rate of 24.7 % and a recurrence rate of 13 %. Our aim was to review the practice in multi-centred pancreato-biliary units across the United Kingdom to identify techniques, risks profile and recurrence.

Methods Patients who underwent endoscopic ampullectomies between 2010 and 2022 across nine tertiary units in the United Kingdom were included. Data

was collected retrospectively for demographics, lesion characteristics, procedural details, complications and recurrence.

Results 119 patients were included in the study. The mean age was 66.5 years, 59 were females (49.6 %) and 16 (13.4 %) had familial adenomatous polyposis. 88 patients (73.9 %) underwent an EUS prior to ampullectomy and 17 cases (19.3 %) demonstrated intraductal extension (IDE). Mean lesion size was 24.3mm and 34 patients (28.6 %) had lateral spreading component (LSC). 56 cases (47.1 %) were removed enbloc. Those removed piecemeal were significantly larger [29.1mm vs 18.1mm (p < 0.0001)]. 27 patients (79.4 %) with LSC, required submucosal injection and this was independent of lesion size. 71 patients (59.7 %) received general anaesthesia and others had conscious sedation. Prophylactic pancreatic and common bile duct stents were inserted in 84 patients (70.6 %) and 50 patients (42.0 %) respectively. 31 patients (26.1 %) developed peri-procedure complications- 19 (16.0 %) bleeding , 8 (6.7 %) post EPRCP pancreatitis, 4 (3.4 %) cholangitis and 6 (5.0 %) perforation. There was no significant univariate association for any of the complications, however the multivariable analysis showed increasing age [OR 0.94 (0.90-0.99,p = 0.023)] and increasing size of lesion [OR 0.89 (0.79-0.99), p = 0.0433)] being protective for pancreatitis. 91 patients (76.5 %) were discharged within 24 hours. 5 patients (4.2 %) showed adenocarcinoma on resection histology. Recurrence was noted in 30 patients (25.2 %) with significant univariate associations between advanced histology (p = 0.0015), IDE (p = 0.0002), LSC (p = 0.0053) and age (p = 0.0359). The multivariable analysis for recurrence showed continued significant independence for advanced histology [OR 3.69 (1.4-9.7, p = 0.0081)] and IDE [OR 5.88 (1.7-19.6, p = 0.0039)]. [1]

Conclusions This large multi-centred study provides an overview of endoscopic ampullectomy practice in the United Kingdom. Larger lesions and increasing age had shown to be protective factors for developing pancreatitis. Recurrence rates have been associated with advanced histology and IDE. Endoscopic ampullectomy is a safe and effective procedure that can obviate a major surgery.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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Colonoscopy beyond the polyps

26/04/2024, 16:45 – 17:45 **Room 10**

OP221 Which scoring systems are useful for predicting the prognosis of LGI bleeding? Old and New

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DOI 10.1055/s-0044-1782934

Aims Lower gastrointestinal (GI) bleeding can be fatal and a common indication for hospital admission. Therefore, several scoring systems have been developed to predict its prognosis. Rockall score (RS), Glasgow-Blatchford score (GBS), and AIMS65 score are frequently used for lower GI bleeding assessments. Recently, ABC score, Oakland score, SHA2PE score, CHAMPS score were developed, for predicting mortality rates and hospitalizations of lower GI bleeding. We compared the mortality predictions and prolonged hospital stay (≥ 10days) of these various scoring systems.

Methods The medical records of 4417 patients who visited the emergency department with hematochezia between January 2016 and December 2022 were retrospectively reviewed. We calculated the areas under the receiver operating characteristic curves for 30-day mortality and prolonged hospital stay (≥ 10 days) based on the age, blood tests, and comorbidities (ABC); AIMS65; Glasgow-Blatchford; Oakland; Rockall (pre-endoscopy); SHA2PE; and CHAMPS scores and compared the predictive accuracy of each score.

Results Data for 1000 patients (median age, 66 years; males, 56.1 %; median hospital stay, 9.4 days) with colonoscopy-confrmed lower GI bleeding were analyzed. The 30-day mortality rate was 3.7 %; the most common causes of lower GI bleeding were ischemic colitis and diverticulum bleeding in 18.8 % and 18.5 % of the cases, respectively. The AIMS65, CHAMPS, and ABC scores were superior in predicting 30-day mortality (p < 0.001). The SHA2PE score was the most accurate predictor of prolonged hospital stay (p < 0.001).

Conclusions The recently developed scoring systems accurately predict lower GI bleeding prognosis, and their usefulness in clinical decision-making was confirmed.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP222 Clinical, histological and endoscopical characterization in patients with ischemic colitis. A case series

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DOI 10.1055/s-0044-1782935

Aims Ischemic colitis (IC) is a frequent colonic vascular disorder due to an imbalance in the colonic tissue between the oxygen intake and the oxygen need. Incidence is increasing because of the rise of cardiovascular risk factors prevalence and the ageing population.

1. Describe demographics, clinical features (risk factors, symptoms at presentation, mortality, and presence of thrombotic disorders), histologic samples results, days of admission, and surveillance after discharge in patients with endoscopic diagnosis of IC.
2. Determine the utility of histologic samples in IC.

Methods The study was developed under an observational and retrospective analysis including all patients with endoscopic diagnosis of IC between January 2013 and January 2022. Data was collected from endoscopic reports recorded in the Endoscopy Unit's database. The descriptive analysis was performed using the IBM SPSS Statistics 25.0 software package.

Results A total of 690 patients were included, of whom 69.1 % were female. The average age at diagnosis was 69.5 years old.

Most frequent cardiovascular risk factors were hypertension (68.8 %), dyslipidemia (55,1 %), and diabetes (30.1 %). Most patients presented bleeding (81.9 %), abdominal pain (72.6 %) and/or diarrhea (55.2 %) when arrival at hospital. 79.8 % of patients were admitted, presenting a median rate of hospital stay of 6 days. Only 5 (0.73 %) patients died due to IC.

After discharged, half of the patients were asked for ambulatory follow-up. Only 43 (6.2 %) patients were investigated about thrombotic disorders, of which 4 were positive. [1–3]

During the endoscopic procedure, biopsies were taken in the 92.2 % of patients. Histological confirmation was reached in the 73.9 % of cases.

Conclusions Age and sex distribution are similar to that reported in other studies, being our series the biggest (N = 690) at the moment.

1. According to physiopathology, hypertension, diabetes and dyslipidemia are notably present in our patients.
2. Mortality rate was lower than in other series.
3. Clinical management did not differ when biopsies were taken or not.
4. Prospective studies are needed before considering not necessary to take in these patients.
5. According to our results, endoscopic diagnosis is probably sufficient for the management of patients with ischemic colitis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP223V Transstomal EUS-guided ileocolostomy for relief of malignant small-bowel obstruction

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DOI 10.1055/s-0044-1782936
Abstract Text A 53-years-old man with bladder carcinoma underwent radical cystectomy in 2018 and Hartman's procedure with left colostomy in 2022 due to recurrent disease. He was admitted in 2023 for complete intestinal obstruction. The patient was deemed unfit for surgery, hence endoscopic recanalization was proposed as an alternative. Thus, the cecum was reached using a standard colonoscope and a guidewire was released as a reference. The echoendoscope was therefore advanced via the colostomy up to the cecum, using fluoroscopy and the guidewire. Under endosonographic view, a dilated loop with buildup of intestinal material was immediately visible and a ileocolonic anastomosis was performed with fecal material backflow upon LAMS release.
Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/cd319def-1665-4cf4-990f-9be4291f6d06/Uploads/13821_Video_ESGE%2023-24.mp4
Conflicts of interest Authors do not have any conflict of interest to disclose.

OP224 Endoscopic Management of Retrorectal Cystic Hamartoma

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DOI 10.1055/s-0044-1782937
Abstract Text An extremely rare retrorectal cystic hamartoma, linked to embryonic hindgut remnants, often benign and asymptomatic, primarily affects middle-aged women. Complications involve infections causing fistulas and potential malignancy. Complete surgical removal is advised due to these risks. We detail a successful endoscopic approach for a forty-five year old woman with a 2cm retrorectal tumor, incidentally found on CT, devoid of symptoms or familial gastrointestinal history. Endoscopy revealed a smooth bulge on the rectal wall. Endoscopic ultrasound depicted a 25x13mm oval tumor near the rectal wall. Considering its location and characteristics, retrorectal extraluminal endoscopic resection was performed in STER-like manner under general anesthesia. Histology confirmed a cystic hamartoma (tailgut cyst). This case highlights the first example of effective endoscopic management for such lesions. [1–3]
Conflicts of interest Authors do not have any conflict of interest to disclose.
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OP225 Differential Diagnosis between Crohn's Disease and Intestinal Tuberculosis Using an Artificial Intelligence Algorithm

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DOI 10.1055/s-0044-1782938
Aims Differential diagnosis between Crohn's disease (CD) and intestinal tuberculosis (ITB) is challenging. This study aimed to investigate the potential for employing a convolutional neural network (CNN)-based model, utilizing colonoscopy images, to facilitate the differential diagnosis between CD and ITB.
Methods We conducted a retrospective review of medical records of patients diagnosed with CD or ITB at a tertiary center between January 2010 and May 2020. The dataset of colonoscopy images comprised the training (801 CD images and 762 ITB images), validation (263 CD images and 219 ITB images), and test (68 CD images and 64 ITB images) datasets. A separate external dataset containing 67 CD images and 63 ITB images from other institutions was used for simulation of clinical applicability of the developed model. The CNN model for training and validation of the algorithm was a UNet model with a ResNet50 encoder. The developed model was tested on the test dataset. Then, the clinical applicability was assessed by using the external dataset. The accuracy and area under the receiver operating characteristic curve (AUROC) were calculated. Finally, the performance of the CNN model was compared with expert endoscopists and trainee endoscopists.
Results The developed model exhibited an accuracy of 0.977 in the differential diagnosis between CD and ITB within the test dataset. The AUROC was 0.997 in the test dataset. The model showed an accuracy of 0.815 in the external dataset. The AUROC was 0.877 in the external dataset. The diagnostic performance of CNN model was inferior to the expert endoscopists whereas it was slightly superior to trainee endoscopists. [1–3]
Conclusions The CNN-based model using colonoscopy images showed the potential to help the differential diagnosis between CD and ITB, especially for less experienced endoscopists.
Conflicts of interest Authors do not have any conflict of interest to disclose.
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OP226 Virtual reality as an alternative to anaesthesia during colonoscopy: a prospective equivalent study in Nancy

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DOI 10.1055/s-0044-1782939
Aims Colonoscopy is an invasive procedure that may cause patients pain and discomfort. Moderate to deep sedation is mostly used to ensure quality of the procedure and patients comfort. However, sedation is associated with some risks and side effects. Virtual reality (VR) offers immersive and three-dimensional experiences that distract patients' attention. This prospective comparative open-label study aims to determine if colonoscopies with complete sedation or with VR are equivalent.

Methods 140 adults who underwent an outpatient colonoscopy were included between April 2021 and December 2022 at University Hospital of Nancy: 70 patients under sedation and 70 others with VR (mask and audio headset). Patients and gastroenterologists completed surveys before and after the colonoscopy.

Results The rate of cecal intubation was 95.7 % for the sedation group and 88.6 % for the VR group. There was no confounding factor. The univariate analysis did not allow to conclude to an equivalence between the two methods (p = 0.685). There was no statistically significative difference on pain (p = 0.518) and anxiety (p = 0.247) before the colonoscopy. Statistically significant difference was observed on peri-procedural pain between sedation group (0.9/10 on the numeric scale) and VR group (3.3/10) (p = 0.0006) and on the state trait anxiety inventory (STAI) rising to 40.4/80 for sedation group and 42.4/80 for VR group (p = 0.003). However, patient and gastroenterologist satisfaction (respectively p = 0.441 and 0.629), patient comfort (p = 0.215), total time of procedure (p = 0.391) and resection of polyps (p = 1) were equivalent.

Conclusions Colonoscopy with VR is not equivalent to sedation regarding cecal intubation rate. Nevertheless, VR represents an interesting alternative for performing colonoscopy, eliminating risks associated with sedation while maintaining comfort and acceptable level of pain and anxiety for the majority of patients. Indeed, patient and gastroenterologist satisfaction remain very high. Moreover, total time of procedure and polyp resection rate are not affected by the use of VR.

Conflicts of interest boston scientific, abbvie, erbe, duomed endoscopie, alfasigma, norgine, ferring, medtronic, cook, olympus, janssen, MSD, pfizer, cousin, ipsen, takeda, erbe

Barrett neoplasia treatment: Can we get even better?

27/04/2024, 09:00 – 10:00 **Room 8**

OP227 Only half of the patients treated endoscopically for early Barrett related neoplasia is detected during Barrett surveillance

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Aims Barrett's esophagus (BE) with early neoplasia is an indication for endoscopic treatment. Patients with non-dysplastic BE are typically enrolled in an endoscopic surveillance program to enable early detection, and treatment, of BE related neoplasia. In contrast, a subset of patients with early BE neoplasia is concurrently diagnosed with BE and early neoplasia. Our goal was to distinguish cases detected through endoscopic surveillance programs (i.e. initial detection of non-dysplastic BE with progression to neoplasia later in time (metachronous neoplasia)) from cases where BE and neoplasia were diagnosed simultaneously (synchronous neoplasia).

Methods We obtained data from the Dutch Barrett Expert Center Registry, a comprehensive nationwide registry encompassing data from all BE patients who underwent endoscopic treatment in Barrett Expert Centers across the Netherlands. To enhance data completeness, we supplemented the registry with pathology reports sourced from the national pathology registry (PALGA). Primary endpoint was the proportion of patients diagnosed with BE and neoplasia simultaneously (synchronous neoplasia). Enrollment in an endoscopic surveillance program was defined as the presence of at least one endoscopy with non-dysplastic BE ≥ 12 months prior to endoscopic treatment initiation.

Results A total of 1,386 patients were identified from the registry with a mean age of 65 years (SD ± 10) and 81 % of the cohort being male. Median BE length was C2M5 (IQR 0-5; 3-8) and treatment indication encompassed low-grade dysplasia (LGD; 27 %), high-grade dysplasia (HGD; 31 %), or low-risk cancer (42 %).

Overall, 699/1,386 patients (50 %) underwent an endoscopy that revealed a new diagnosis of BE with synchronous neoplasia. Conversely, the remaining 687/1,386 patients (50 %) were enrolled in endoscopic surveillance programs at the moment neoplasia was diagnosed, with a median duration of endoscopic surveillance spanning 8 years (IQR 4-13).

The proportion of patients with new BE and synchronous neoplasia increased along with more severe histology at the time of treatment. Specifically, the proportion of patients with synchronous neoplasia was 39 % (147/375) for a treatment indication of LGD, 49 % (205/422) for HGD and 59 % (347/589) for cancer (P < 0.01). There was no significant difference observed concerning varying lengths of BE.

Conclusions Remarkably, only half of the patients with early Barrett's neoplasia receive a neoplasia diagnosis following enrollment in endoscopic surveillance programs, while the remaining half presents with de novo diagnosis of BE containing synchronous neoplasia. Notably, for patients with more severe histologic changes at the moment of treatment, the proportion of de novo BE with synchronous neoplasia is even higher. These findings support further critical view regarding the efficacy and cost-effectiveness of BE surveillance.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP228 Endoscopic Mucosal Resection versus Endoscopic Submucosal Dissection for Barrett's Neoplasia: Clinical Outcomes at a Canadian Tertiary Referral Center

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Aims Endoscopic mucosal resection (EMR) and endoscopic submucosal dissection (ESD) are established techniques for endoscopic resection of Barrett's neoplasia, but consensus is lacking for which offers superior outcomes. This study compares the outcomes of EMR and ESD at a Canadian tertiary Barrett's referral center.

Methods A retrospective single-center study at St. Michael's Hospital, Toronto, included patients treated for Barrett's neoplasia (high-grade dysplasia or esophageal adenocarcinoma) from January 2015 to August 2023. Primary outcome was local recurrence after complete remission of dysplasia (CRD), with secondary outcomes being persistent dysplasia at the first follow-up and CRD achievement. Follow-up was performed until November 2023.

Results The study included 331 patients: 72 underwent ESD and 259 underwent EMR (mean age: 68.5 y/o, 90.3 % male in ESD, 67.6 y/o, 80.3 % male in EMR). ESD group had larger lesions (4.5 vs 3.0cm, P < 0.05) and higher circumferential occupancy (53.4 % vs 43.0 %, P < 0.05). Adverse events were slightly more common in ESD (bleeding: 2.8 % vs 0.4 %, perforation: 1.4 % vs 0.8 %, P = 0.15). Histologically, adenocarcinoma was more prevalent in ESD (94.4 % vs 77.2 %, P < 0.05), with higher incidence of deep submucosal invasion (M: 75 % vs 82 % SM1: 6 % vs13 %, SM2: 19 % vs 6 %, P < 0.05). Curative resection rates were 63.9 % for ESD and 87.3 % for EMR (defined as the absence of high-risk pathologic features for lymph node metastasis regardless of the vertical mar-

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gin). Of the 275 patients who underwent follow-up (54 ESD, 221 EMR), persistent dysplasia at the first follow-up was significantly lower in ESD (11.1 % vs 25.8 %, P < 0.05). The total number of resections until CRD was similar (1.3 vs. 1.8 times, P = 0.14). CRD was achieved in 100 % of ESD patients and 96.8 % (214/221) of EMR patients (P = 0.35). For patients who didn't achieve CRD after EMR, 6/7 underwent esophagectomy and 1/7 entered palliative care. Local recurrence after CRD was significantly lower in ESD (1.9 % [1/54] vs 12.5 % [26/214], P < 0.05). Local recurrence after ESD was successfully treated with endoscopy, while in the EMR group, 21/26 were successfully treated with endoscopy, 3/26 required esophagectomy, and 2/26 entered palliative care. The median total follow-up duration was significantly longer in EMR group [288 (130-524) days vs 623 (318-1171) days, P < 0.05].

Conclusions Despite non-randomized treatment selection in which more advanced or concerning appearing lesions were selected for ESD, these patients showed significantly lower rates of persistent dysplasia at the initial follow-up. Furthermore, after achieving CRD, the ESD group demonstrated a reduced incidence of local recurrence. In contrast, some local recurrences after EMR necessitated esophagectomy, with some cases leading to palliative care. These findings suggest that ESD may provide a more favorable prognosis in the treatment of Barrett's esophagus compared to EMR.

Conflicts of interest JDM – Speaker: Boston Scientific, Pendopharm, SCOPE rounds, Vantage, Medtronic. Medical Advisory Board: Pendopharm, Boston Scientific, Janssen, Pentax, Fuji. Grants and Research support: CAG.GRM – Consultant for Olympus. Speaker: Pentax, Fuji and Medtronic.CWT – Speaker: Medtronic and Boston Scientific, Consultant: Boston Scientific.

OP229 Expert Assessment of Infiltration Depth and Treatment Allocation in Early Barrett Cancer

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Aims Early neoplasia arising from Barrett esophagus (BE) can be curatively treated by endoscopic resection. The choice of the resection technique – endoscopic mucosal resection (EMR) or submucosal dissection (ESD) – largely depends on the assumed infiltration depth of the lesion and hence on preprocedural judgment by the endoscopist. To clarify the accuracy of the endoscopic assessment and treatment allocation, we performed a study showing endoscopic photographs to BE experts simulating a second opinion procedure.

Methods 202 cases of early BE neoplasia (82 % men, mean age 66.9 years) were selected from our endoscopy database 2009-2022, with cancer in the resection specimen and 3-4 adequate endoscopic images demonstrating the lesion and surrounding BE. 110 resections had been done by ESD and 92 by EMR. These images as well as clinical data (age, sex, BE length) and preprocedural biopsy information were shown to 9 BE experts (> 100 BE resections) who were blinded to the resection technique and the final histopathological results. Main outcomes were accuracy and interobserver variability to correctly diagnose a) any submucosal infiltration (T1b versus T1a), or b) deeper submucosal involvement (≥ T1bsm2 vs. T1bsm1/T1a). Suggested treatment allocation was also recorded.

Results Of the 202 cases, 148 (73.3 %) had stage T1m and 54 T1sm (26.7 %; of those, n = 35 with sm1 and n = 19 with ≥ sm2) on final histology. The accuracy to diagnose sm infiltration (T1sm vs T1m) ranged between 35.2 % and 48.9 % for positive and between 77.7 % and 82.3 % for negative predictive values (overall kappa value 0.41). Overall kappa value was 0.27 for differentiation between deeper sm infiltration (≥ T1bsm2) versus more superficial infiltration depth (T1bsm/T1a). Although the raters also differed substantially in their recommendation of the resection method, this was however more consistent with their morphologic assessment of lesions. 88.5 % of invisible lesions or those slight irregularities/those classified as Paris IIb/G1 or G2 were allocated to EMR, in this subgroup, the rate of T1a cancers was 87.4 % and R0 resection was finally achieved in 90.1 %.

Conclusions Precise endoscopic assessment of BE cancer infiltration depth based on gross endoscopic lesion morphology largely fails due to poor sensitivity and high interobserver variability. From an oncologic perspective, it could be concluded that only invisible or flat lesions are safely treated by EMR, the remaining lesion by ESDs even if this could result in overtreatment in a variable percentage of cases. Such an approach should be tested in further prospective outcome studies.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP230 Outcomes of different treatment approaches after R0 endoscopic resection of high-risk T1 esophageal adenocarcinoma: An international multicentre retrospective cohort study

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Aims Optimal management after R0 endoscopic resection (ER) of T1 esophageal adenocarcinoma (EAC) with ≥ 1 high-risk histological feature (i.e. submucosal invasion, a/o poor differentiation, a/o lympho-vascular invasion) is subject to debate, given conflicting reports on risk of lymph node metastases (N +). This cohort study (NCT04818476) aimed to assess outcomes following R0 ER for high-risk T1 EAC.

Methods All patients who underwent R0 ER, i.e. radical deep margin, for high-risk T1 EAC (2008-2019) were retrospectively identified in 11 international centers specialized in Barrett's neoplasia. Data were collected on treatment policies and outcomes, including rates of N + , distant metastasis (M +), and EAC-related mortality.

Results 131 patients (106 male) were identified: 46 high-risk T1a (HR-T1a), 27 T1sm1 without other risk factors (LR-T1b) and 58 T1b with other risk factor(s) (HR-T1b). Management after ER consisted of surgical resection n = 34 (26 %), with neo-adjuvant chemoradiotherapy (nCRT) in 2/34; endoscopic FU n = 80 (61 %); C/RT n = 9 (7 %); no further management n = 8 (6 %).

In the 34 patients (64 ± 11 yrs) who underwent surgery, surgical morbidity was 56 % (n = 19, 95 % CI 38-73) with anastomotic leakage in n = 3. 30-day mortality was 0 %. Among the 32 patients without nCRT, 11 (34 %) had residual T1 disease and 3 (9 %) N + in the surgical specimen. Review of clinical reports for all T1 cases identified 4 cases of endoscopic non-radical resection misclassified as R0. Another 3 cases were upstaged to R1 following pathological revision. After median 58 (IQR 40-85) months of FU after surgery, 1/32 (3 %, 95 % CI 0-10)

developed N + ; 2/32 (6 %, 95 % CI 0-15) developed M + and died. 1/32 (3 %) died of unrelated cause. 5/32 (16 %) were lost to FU.
80 patients (71 ± 9 yrs) entered endoscopic FU. After median clinical FU of 46 (IQR 25-59) months, 5/80 (6 %, 95 % CI 1-12) were diagnosed with recurrent disease, of which 4 (5 %, 95 % CI 1-10) died. 15/80 (19 %) died of unrelated causes. 9/80 (11 %) were lost to FU.
In our cohort of N = 112 (32 surgery without nCRT, 80 endoscopic FU), rates of N + and N + /M + were 7 % (95 % CI 2-12) and 9 % (95 % CI 4-14). EAC-related and overall mortalities were 5 % (95 % CI 1-10) and 20 % (95 % CI 12-27), resp.
Conclusions Despite limitations such as the retrospective setting, absence of standardized FU protocols and histological revision, and potential preselection of unfit surgical candidates for endoscopic FU, our results align with lower N + rates observed in endoscopic-oriented studies for high-risk T1 EAC. Our study demonstrates that majority of cases with surgical T1 had ER misclassified as R0, challenging previous studies that reported higher N + rates. It reflects that surgery is not a definitive curative approach and did not improve disease-specific mortality. Our results advocate for a larger cohort and prospective evaluation of outcomes in patients treated endoscopically for high-risk T1 EAC (PREFER, NCT03222635).
Conflicts of interest Authors do not have any conflict of interest to disclose.

OP231 The Hybrid-APC study: initial results of a Multicenter Observational Study on Barrett Esophagus treatment

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DOI 10.1055/s-0044-1782944

Aims Preliminary data from a prospective, single-arm, multicenter observational study to evaluate the initial treatment success of the Hybrid-APC (H-APC) technique, which combines argon plasma coagulation (APC) with a previous saline injection for ablation therapy of neoplastic Barrett's esophagus (BE). This technique is being evaluated as an alternative to radiofrequency (RFA), the current gold standard.
Methods We prospectively collected data from 57 patients with BE (mean length C of 0.58 SD 0.94 and mean length M of 2.44 S.D. 1.31) who underwent H-APC ablation in 4 Italian Hospitals. None of them had undergone previous ablative therapy for BE. 18 patients are still ongoing, and one patient was lost after one treatment session.
Treatment duration depended on the required number of endoscopic sessions at two months (± 2 weeks) intervals until complete eradication of visible intestinal metaplasia. Maximum 50 % of the circumference could be treated per treatment session. Complete Eradication of dysplasia (CE-D) and Complete Eradication of Intestinal Metaplasia (CE-IM) were confirmed by biopsy samples taken on neo epithelium after complete eradication of visible BE. After 7 days (+ /- 2 days) from each session patients received a phone call from the local advisor to assess pain and dysphagia.
Results Of the 57 enrolled patient, 43.9 % were previously treated with endoscopic resection for visible lesion (one case – 1.75 % – of LGD, 21,1 % HGD with one case with also a G1 NET; 21,1 % PT1a), while 56.1 % started directly with ablation as no visible lesions were found. Among the 38 patients who completed the treatment so far CE-D and CE-IM were 100 % after a mean of 1.5 ablation sessions. 65.8 % of them achieved the primary outcome with just one treatment session with a mean duration of 22.8 minutes SD 11.96.
Until November 2023, 89 ablations sessions were performed and no major complications have been reported except for one case of electrocoagulation syndrome post-ablation, conservatively managed. Tolerability showed very promising results with mean reported pain score after the first ablation session of 1.77/10 and mean dysphagia score of 1.4/10.
Conclusions Hybrid-APC appears to have high efficacy and safety, with a high tolerability profile and a limited number of treatment sessions required to achieve initial CE-D and CE-IM. Prospective randomized comparative studies are still needed to have final evidence of its effectiveness.
Conflicts of interest Authors do not have any conflict of interest to disclose.

OP232 Efficacy and safety of the cryoballoon 180 ablation system for the treatment of dysplastic Barrett's esophagus: preliminary results from a prospective Dutch multicenter study

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Aims Cryoballoon ablation is a relatively new method which can be used for the eradication of dysplastic Barrett's esophagus (BE). While the focal cryoballoon ablation system has shown promising results for limited BE, the cryoballoon[180] ablation (CBAS[180]) system is developed to ablate the esophagus semi-circumferential over 3cm length which enables treatment of larger BE segments. Although a prior first-in-human study demonstrated that CBAS[180] treatment was feasible and effective, there was also room to optimize the safety profile by reducing the dose. Therefore, in the current study, we investigated a lower dose of the CBAS[180] system in patients with dysplastic BE.
Methods Patients with ablation naïve BE with a length of C ≤ 3 and M ≥ 1 were enrolled in three Dutch Barrett expert centers. Treatment consisted of a full circumferential ablation using two semi-circumferential ablations of 3cm in length with the CBAS[180] system at a dose of 1.2 mm/sec. Patients received additional follow-up phone calls at days 1, 7 and 30 post-treatment and underwent a follow-up endoscopy after 3 months. Outcomes included the technical success rate, BE regression percentage at follow-up (scored by the treating endoscopist), adverse events, post-procedural pain (scored on a scale of 0-10) and dysphagia (scored on a validated scale of 0-4).
Results Twenty-five patients (80 % male; mean age 67) with a median BE length of C0M2 were included. In two patients treatment was technically unsuccessful due to unstable positioning of the balloon (n = 1) and device malfunction (n = 1) resulting in a technical success rate of 92 % (23/25; 95 % CI 74-99 %). So far, 16/24 patients completed follow-up endoscopy. Median BE regression was 95 % (p25-p75 80-99 %; 95 % CI 70-99 %). One patient had post-procedural bleeding after 11 and 22 days (1/25; 4 %; 95 % CI 1-20 %) which required two hospital admissions (duration 3 and 2 days) and one re-endoscopy without intervention. No esophageal strictures or other adverse events occurred. The procedure was generally well tolerated with low post-procedural pain and dysphagia scores. Median post-procedural pain scores (in 23 patients) at discharge, days 1, 7, and 30 were 1 (p25-p75 0-4), 1 (p25-p75 0-2), 0 (p25-p75 0-0), and 0 (p25-p75 0-0). Median dysphagia scores were 0 at all follow-up points (p25-p75 0-1).
Conclusions Drawing from these preliminary results, circumferential CBAS[180] ablation at 1.2 mm/sec emerges as an effective and safe procedure in the hands of experts. Before embracing widespread adoption of this technique in all BE lengths, further avenues for exploration should encompass the assessment of multiple ablations stacked on top of each other in larger segments and the validation of outcomes in a substantial patient cohort.
Conflicts of interest C. Frederiks has received speaker's fee from Pentax Medical. J. Bergman is a consultant for Medtronic, Cook Medical, and Boston Scientific, and has received research funding from Pentax Medical, C2 Therapeutics, Medtronic, Aqua Medical, Olympus Endoscopy, and Fuji-film. R. Pouw is a con-

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sultant for MicroTech, and has received speaker's fee from Medtronic. BW has received research funding from Pentax Medical, C2 Therapeutics, and Aqua Medical. The remaining authors declare to have no disclosures relevant to this manuscript.

The challenge of diagnosing and treating malignant biliary strictures

27/04/2024, 09:00 – 10:00 Room 10

OP245 Artificial Intelligence for Automatic Diagnosis and Pleomorphic Morphologic Characterization of Malignant Biliary Strictures Using Digital Cholangioscopy: A Multicentric Transatlantic Study

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Aims Despite the advances of recent years, the diagnosis and characterization of biliary strictures is challenging. Artificial intelligence applied to digital single-operator cholangioscopy (D-SOC) is expected to provide a significant increase in the diagnostic yield of indeterminate biliary strictures. Pilot studies using artificial intelligence (AI) algorithms applied to D-SOC have shown promising results. This multicentric study aimed to validate a CNN model on a large dataset of D-SOC images, providing automatic detection of malignant biliary strictures, as well as their morphological characterization

Methods Our group conducted an international study including D-SOC exams from 3 centers in Portugal (Centro Hospitalar Universitário de São João, Porto, Portugal, n = 123), Spain (Hospital Universitario Puerta de Hierro Majadahonda, Madrid, Spain, n = 18), and the United States of America (New York University Langone Hospital, New York, USA, n = 23). Each frame was labelled as normal/benign findings or as a malignant lesion if histopathological evidence of biliary malignancy was available. Also, we evaluated the network's performance for detecting morphologic features, namely tumor vessels, papillary projections, nodules and masses. The image dataset was split for the constitution of training and validation datasets, with a ratio of 90 % and 10 %, respectively. The performance of the CNN was measured by calculating the area under the curve (AUC), sensitivity, specificity, and positive and negative predictive values (PPV and NPV, respectively).

Results A total of 103,082 images from 164 D-SOC exams from the three centers were included (53,678 of malignant strictures and 49,404 of benign findings). The model had an overall accuracy of 94.1 %, a sensitivity of 93.5 %, a specificity of 94.8 %, a positive predictive value of 95.1 %, a negative predictive value of 93.1 % and an AUROC of 0.96.

Our group evaluated the performance of the CNN for the detection of morphological characteristics associated with malignancy, including papillary projections, nodules, masses and tumor vessels. The accuracy for the detection of these features was 90.8 %, 93.6 %, 93.2 % and 78.1 %, respectively. The AUC values for each morphologic characteristic were determined to be 0.80 for tumor vessels, 0.91 for nodules, 0.95 for masses and papillary projections.

Conclusions The potential of deep learning algorithms to impact the care of patients with suspected biliary malignancy is vast. The authors have expanded this line of research with a multicentre study including patients from two continents, thus increasing the variability of the dataset. This study assessed the performance of a CNN for detecting and differentiating malignant and benign biliary disorders using a large pool of D-SOC images. The excellent performance of this model lays the foundations for future exploration of AI technologies in this subset of patients, aiming to improve the clinical outcome of patients with suspected biliary malignancy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP246 Impact of temperature-controlled endobiliary radiofrequency ablation on biliary drainage in patients with inoperable hilar cholangiocarcinoma: A propensity score–matched analysis

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Aims Few studies have evaluated outcomes of endobiliary radiofrequency ablation (RFA) for malignant obstruction in the hilar bile duct, which has a thin wall and complex duct–vascular contacts. We evaluated the efficacy and safety of temperature-controlled endobiliary RFA, which can reduce the risk of unintentional thermal injury, in the treatment of inoperable hilar cholangiocarcinoma (CCA).

Methods After propensity score matching, 58 patients with inoperable hilar CCA were categorized to undergo endobiliary RFA with biliary stenting (RFA + stent group; $n = 29$) or stenting only (stent-only group; $n = 29$). The primary outcome was the median time to recurrent biliary obstruction (RBO), and the secondary outcomes were overall survival (OS), the rates of adverse events (AEs), and factors affecting the time to RBO.

Results The median time to RBO was 218 days in the RFA + stent group and 161 days in the stent-only group ($p = 0.022$). The median OS showed a non-significant tendency to be higher in the RFA + stent group (337 versus 301 days; $P = 0.310$). The overall AEs were comparable between the two groups (10.3 % vs 6.9 %, $p = 1.000$). Endobiliary RFA was significantly associated with an improved time to RBO in both univariable (hazard ratio [HR], 0.49; 95 % confidence interval [CI], 0.24–0.93, $p = 0.023$) and multivariable (HR, 0.43; 95 % CI, 0.22–0.88, $p = 0.020$) analyses.

Conclusions Temperature-controlled endobiliary RFA resulted in favorable stent patency without increasing the rate of AEs, but did not significantly increase OS in patients with inoperable hilar CCA (Clinical trial registration number: KCT0008576).

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP247 Ablate, stent and repeat: Feasibility, clinical success and safety profile of intraductal radiofrequency ablation in the management of inoperable perihilar cholangiocarcinoma patients – interim analysis of the COMBO-RFA randomized clinical trial

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DOI 10.1055/s-0044-1782948

Aims Intraductal radiofrequency ablation (RFA) has been proposed as a useful adjunctive therapeutic method for patients with inoperable perihilar cholan-

giocarcinoma (pCCA). There is limited data regarding the benefits of RFA and there is currently no standard protocol for RFA-based endoscopic treatment, including timing, number of applications and type of stenting required in this setting. We aimed to evaluate the feasibility, efficacy and safety of a novel RFA-based endoscopic palliation protocol.

Methods We report on the interim results of a single center randomized clinical trial (NCT05563870) currently underway at a tertiary referral center for therapeutic endoscopy. Consecutive patients presenting with pCCA and biliary obstruction who were not candidates for curative surgical resection were evaluated for inclusion in this trial. Native-papilla patients were randomized 1:1 to biliary plastic stenting aiming to drain all the viable liver territories (control) or drainage plus RFA of the entire length of the tumor (active arm). After the index procedure, patients were scheduled for stent exchange and additional RFA treatment (active arm only) at 8-10 weeks intervals. Primary outcome was clinical efficacy defined as bilirubin levels < 3mg/dL at 4 weeks after index ERCP; secondary outcomes included overall survival and safety outcomes, with a particular focus on biliary events (cholangitis and cholecystitis).

Results The interim analysis included 25 patients (13 active arm) undergoing a total of 72 procedures (37 in the RFA arm) for a median follow-up of 3 months (range 1-14). Most patients received either 2 (10/25) or 3 (3/25) plastic stents at index ERCP and 23/25 of the patients achieved the primary outcome of effective drainage at 4 weeks. Despite adequate drainage, only 7/25 patients received some form of palliative systemic therapy (chemotherapy and/or immunotherapy). There were 10 deaths during follow-up, 5 from causes unrelated to the underlying cancer, 3 because of therapy-related complications and 2 because of cancer progression. 20/25 patients experienced at least 1 adverse event during follow-up; with 16 patients experiencing at least 1 biliary event, including 14 cases of severe cholangitis (11) and cholecystitis (3). There were no significant differences between the study groups in terms of clinical efficacy, survival and safety outcomes.

Conclusions Early and extensive liver drainage followed by iterative stent exchange with intraductal RFA applications seems feasible and effective in the palliation of biliary obstruction in pCCA patients, with no additional risk related to RFA applications. However, adverse events related mainly to biliary infection are a frequent and serious occurrence during follow-up in this vulnerable patient population. Further data on the optimal timing and application protocol is required before widespread adoption of intraductal RFA into clinical practice can be advocated.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP248 High sensitivity of biliary brush cytology after optimization of protocol in patients with suspected perihilar or intrahepatic cholangiocarcinoma: a prospective cohort study with historical control

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Aims Endoscopic or percutaneous bile duct brushing is often performed as first step to differentiate between benign and malignant biliary strictures. Although brush cytology has a high specificity (95-100 %), the sensitivity for detection of malignancy has been reported to be poor (41-67 %) (1-4). This results in repeated diagnostic procedures with potential treatment delay, adverse events, and additional costs. Aim of this study was to evaluate a change in protocol with optimization of obtaining, handling and rating of brush cytology in patients with suspected perihilar or intrahepatic cholangiocarcinoma (pCCA/iCCA).

Methods Patients with suspicion of pCCA or iCCA were prospectively included between June 2021 and June 2023. Preferably 2 brushes and 2-4 intraductal biopsies were taken during the initial procedure. Cells were dislodged in a Cytolyt container within 30 seconds of which two Thinprep slides were prepared. Double reading was routinely performed by two expert cytopathologists. NGS was performed in samples with uncertainty of malignancy. A historical cohort (January 2017-June 2021) was used as control. In this cohort a single brush was performed without intraductal biopsies. The obtained cells were preserved in a Roswell Park Memorial Institute (RPMI) 1640 medium of which four cytospins were done. Double reading and NGS were not routinely performed. In both cohorts morphological diagnosis was assessed according to the Papanicolau society of cytopathology. Both the diagnostic category 'suspicious for malignancy' and 'malignant' were classified as results compatible with malignant disease. Final diagnosis was confirmed by either histological proof of malignancy or in case unavailable, follow-up compatible with malignant disease. Primary endpoint was the sensitivity before and after implementation of the protocol; secondary endpoints were the sensitivity of the individual steps of the modified protocol in the prospective cohort.

Results In this study, a total of 177 patients were evaluated (62 prospectively and 115 historical controls). The final diagnosis was malignant disease in 166 patients (93.8 %). After protocol implementation, the sensitivity raised to 88.3 % (95 % CI, 76.8-94.8 %) versus 50.9 % (95 % CI, 41.1-60.7 %) pre-implementation (difference 37.4 %; 95 % CI, 23.6-51.2 %). Specificity was 100 % in both groups (2/2 vs 9/9). Sensitivity of the first brush in the prospective cohort was 78.3 % (95 % CI, 65.5-87.5 %). NGS added value in 3 patients with uncertain results, increasing sensitivity to 83.3 % (95 % CI, 71.0-91.3 %). A second brush was performed in 45 patients; of which one patient benefited from improved diagnostic value. Intraductal biopsies were performed in 34 patients (6 benign, 13 suspicious, 15 malignant, leading to a malignant diagnosis in 3 out of 13 patients with false-negative brush cytology. [1–4]

Conclusions A modification in the handling of cytopathology, led to a significant improvement in the sensitivity of bile duct brushes to 78 % for patients with suspected pCCA or iCCA. Furthermore, adding NGS, use of two brushes, and intraductal biopsies in the initial procedure could further increase sensitivity to 88 %.

Conflicts of interest Jeska A. Fritzsche, Esmée Smit, Otto M. van Delden, Frederike Dijk, Arantza Farina Sarasqueta, Sybren L. Meijer, Anne M. Uyterlinde, Mattheus C.B. Wielenga, IJsbrand A.J. Zijlstra, and Joanne Verheij have no conflicts of interest or financial ties to disclose. Paul Fockens performed as a consultant for Olympus and Cook Endoscopy. Geert Kazemier reports research support and travel fees from SAS Analytics and research grants from KWF, ZonMw, Cancer Center Amsterdam Foundation, and Bennink Foundation outside the submitted research. Heinz-Josef Klümpen performed in advisory board for Janssen, Astra-Zeneca and IPSEN, and received Speaker's fees from CCO and MedTalks. Cyriel Y. Ponsioen reports research grants from Gilead and Perspectum, performed as a consultant for Pliant, Takeda and Shire, and received speaker's fees from Tillotts. Roy L.J. van Wanrooij performed as a consultant for Boston Scientific. Rogier P. Voermans reports research grants from Boston Scien-

tific and Prion Medical, performed as a consultant for Boston Scientific, and received speaker's fee from Mylan and Zambon. All outside the submitted work.

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OP249 Comparison of disposable digital single-operator cholangioscopy versus direct peroral cholangioscopy for the management of intraductal superficial lesions of the bile duct

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Aims Disposable digital single-operator cholangioscopy (D-SOC) and direct peroral cholangioscopy using an ultra-slim endoscope (D-POC) are both established modalities for the diagnosis and treatment of biliary diseases. We aimed to evaluate and compare the usefulness of the D-SOC and D-POC for the management of intraductal superficial lesions of the bile duct (ISL-Bs).

Methods Consecutive 38 patients with suspected biliary diseases underwent both D-SOC and D-POC. The primary outcome was the detection rate of the ISL-Bs, and the secondary outcomes were the technical success of POC and POC-guided forceps biopsy sampling (POC-FB), procedure time, visualization quality, tissue adequacy, and adverse events (AEs).

Results D-SOC showed a higher technical success of POC without a significant between-group difference (D-SOC vs D-POC, 100 % vs 92.1 %, $P = 0.248$). D-POC showed a marginally higher detection rate of ISL-Bs (D-SOC vs D-POC, 28.9 % vs 34.2 %, $P = 0.683$) and significantly higher visualization quality than D-SOC ($P = 0.043$). The procedure time was significantly shorter with D-SOC (D-SOC vs D-POC, 11.00 ± 1.34 vs 19.03 ± 2.95, $P < 0.001$). The technical success rate of POC-FB and tissue adequacy were not different between the two systems (D-SOC vs D-POC, 85.7 % vs 90.0 %, $P = 1.000$; 77.8 % vs 90.9 %, $P = 0.566$).

Conclusions While D-SOC elicited high technical success and short procedure time, D-POC provided high visualization quality, allowing detailed observation of the surface structure and microvascular patterns. The use of an appropriate POC system according to the characteristics of the bile duct diseases can enhance the proper management of ISL-Bs.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP250 EUS-guided Fine-Needle Biopsy for Diagnosis and Molecular Profiling of Extrahepatic Cholangiocarcinoma: a Single-Center Retrospective Study

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DOI 10.1055/s-0044-1782951

Aims The most common cause of biliary stricture is malignancy, but histological confirmation is mandatory before performing invasive surgical interventions or chemotherapy. Moreover, the increasing use of targeted anti-cancer therapies based on tumor molecular profiling makes the quality of the sampling of the neoplastic tissue even more important. In this study, we aimed to investigate the performance of endoscopic ultrasound (EUS) guided fine-needle biopsy (FNB) in diagnosis of extra-hepatic biliary strictures. Additionally, we evaluated the adequacy of the tissue sample for molecular biology analysis.

Methods This is a retrospective single-center study. EUS-FNB procedures performed at our Unit from January 2022 to August 2023 were analyzed. Patients who underwent EUS-FNB of extrahepatic (peri-hilar or distal) biliary stricture without a pancreatic mass were included. Diagnostic yield was evaluated and, in case of samples diagnostic for biliary malignancy, adequacy for molecular profiling (ie, > 100 neoplastic cells) was also reported. Final diagnosis was obtained from surgical specimens or clinical/radiological follow-up.

Results During the study period, 34 patients underwent EUS-FNB for biliary stricture in absence of pancreatic mass at cross-sectional image. Among these, 29 patients underwent EUS-FNB of the biliary stricture (22 males, 75.9 %; median age 75 years, range 48-92 years) and were included in the analysis, while 5 patients underwent sampling of a peri-biliary adenopathy, as the primary lesion was not reachable by the EUS-guided sampling. Eighteen patients had a peri-hilar stricture, while 11 had distal stricture. EUS-FNB was performed with 22G Franseen needle in 26/29 patients (89.6 %), with 25G Franseen needle in 2/29 (6.9 %) and with 22G and 25G Franseen in 1 patient (3.4 %), with a median of 3 passes (range 1-6). At the final diagnosis, 24/29 (82,7 %) had cholangiocarcinoma. EUS-FNB showed overall sensitivity of 68 % (95 % CI 46.5 % – 85.0 %) and diagnostic accuracy of 72.4 % (95 % CI 52.8 % – 87.3 %). Sensitivity and diagnostic accuracy for EUS-FNB of peri-hilar stricture were 70.6 % (95 % CI 44.0 % – 89.7 %) and 72.2 % (95 % CI 46.5 % – 90.3 %), respectively. Sensitivity and diagnostic accuracy for EUS-FNB of distal stricture were 62.5 % (95 % CI 24.5 % – 91.5 %) and 72.7 % (95 % CI 39.0 % – 94.0 %), respectively. In 2 false negative biopsies, final diagnosis of malignancy was obtained with concomitant EUS-FNB of hilar adenopathy in one case, and transpapillary biopsy during ERCP in the other. Overall, tissue samples were deemed adequate for molecular profiling in 10/16 (62.5 %) of the cases positive for malignancy (peri-hilar 6/11, 54,5 %; distal 4/5, 80 %).

Conclusions In this retrospective study, EUS-FNB of biliary stricture showed overall good diagnostic yield for the diagnosis of cholangiocarcinoma. Moreover, EUS-FNB was adequate for molecular profiling in a relevant proportion of the cases positive for malignancy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

AI in upper GI: More than Meets the Eye

27/04/2024, 09:00 – 10:00 **Room 11**

OP251 Reliability Concerns: Can AI Interpret Nuanced Medical and Ethical Scenarios in the Field of Gastroenterology

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Aims AI tools like ChatGPT and Google Bard are gaining traction in healthcare, notably gastroenterology, offering benefits such as vast data knowledge, swift responses, and easy access. However, their reliability in medical and ethical decision-making is uncertain. They provide information effectively but cannot fully emulate human medical professionals' nuanced understanding and em-

pathy. Especially in ethical decisions, which demand comprehension of personal and contextual factors, these AI tools should serve as adjuncts, not replacements, to expert human judgment.

Methods The study evaluated the medical and ethical dependability of two widely used chatbots, ChatGPT and Google BARD, within the gastroenterology sphere. A questionnaire was administered to both bots, with their responses being rated using a 1-10 Likert scale where 1 indicated exceptional accuracy. To ensure unbiased evaluation, two independent assessors analyzed each bot's answers. The goal was to systematically evaluate the chatbots' competencies and trustworthiness using this performance review. The involvement of dual evaluators and the application of the Likert scale aimed to mitigate any potential bias, strengthening the validity of the findings.

Results Our study compared the dependability of ChatGPT and Google BARD in medical management scenarios. ChatGPT scored 21 % ($p < 0.01$), and Google BARD scored 19 % ($p = 0.022$) in terms of reliability when juxtaposed with standardized practices. ChatGPT had a higher score than Google BARD among the chatbots (67 % vs. 41 %, $p = 0.034$). However, both chatbots' reliability scores were inferior compared to standard practice. This underscores the importance of reliability in developing gastroenterology-focused chatbots and the need for ongoing research and improvements.

Conclusions Despite potential benefits, AI tools like ChatGPT and Google Bard currently fall short in assisting medical and ethical decisions in gastroenterology, as shown by lower reliability scores against standardized guidelines. Although ChatGPT marginally outperformed Google Bard, both fail to match human healthcare professionals' nuanced understanding and empathy. This underlines the crucial need for AI dependability and the importance of ongoing research to enhance these technologies, ensuring they support human judgment in decision-making, not supplant them.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP252 Prediction of Lymph Node Metastasis from Whole Slide Pathology Images of Early Gastric Cancer using a 2 step Machine Learning Approach

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DOI 10.1055/s-0044-1782953

Aims In Early Gastric Cancer(EGC), if the risk of lymph node metastasis(LNM) is negligible, endoscopic curative resection is performed preferentially. If LNM is suspicious, additional gastrectomy with lymphadenectomy should be performed.

Recently, as artificial intelligence has revolutionized medical field, several studies have been conducted to predict LNM applying machine learning in stomach. The risk of LNM is determined by primary tumor. It is necessary to pick up on fine and diverse morphologic patterns within H&E stained tissue slide.

Therefore, the aim of this study is to develop machine learning algorithm for predicting LNM status in patients with EGC using H&E stained WSI.

Methods It is a multicenter study in 5 cohorts including Hanyang university Guri hospital(HGH), Kangbuk Samsung medical center(KBSMC), Seoul ST. Mary's hospital(SS), International ST Mary's Hospital(ISH), Korea University medical center(KUMC). The cohort was randomly split into a training and validationas well as test set.

Whole slide images were annotated and tessellated into 512 * 512 pixels using ASAP. The annotation followed areas of tumor tissue using spline on the rectangle ROI by expert pathologists.

In the first step, Deep Lab V, SE-ResNext101 to segment differentiated and undifferentiated gastric cancer was trained on 7029 Patches from three datasets of EGC.

In the second step, Morphological features inferred by the trained segmentation network from WSI of the primary EGC to predict LNM status.

Results The data consisted of 243 cases from 5 cohorts. The number of cases in each cohort was 61, 84, 59, 14, and 25, respectively.

The classification results of differentiated/undifferentiated tumor and normal tissue are described

We represented differentiated tumors as orange, undifferentiated as brown, and normal cells as light orange(apricot color). When visualizing patch images, ground truth, and predictions from both internal and external datasets, we observed significant similarity.

And the performance of the classifier at the patch and slide level, as well as internal and external cohorts.

A mean AUROC of 0.7487 and a mean accuracy of 0.7 were achieved in predicting LNM status in the test set using XGBoost.

Conclusions Our study is the first proof of concept that machine learning trained with deep learning of whole slide images may be able to predict LNM in early gastric cancer.

If this machine learning algorithm is clinically feasible, clinical doctors can determine appropriate treatment to EGC patients right after biopsy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP253 Machine learning-based endoscopic classification for superficial mucosal lesions in hereditary diffuse gastric cancer

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DOI 10.1055/s-0044-1782954

Aims Hereditary diffuse gastric cancer (HDGC) is typically due to pathogenetic variants in *CDH1* (*CDH1*-PV) and carries 40-60 % life-time risk of signet ring cell carcinoma (SRCC). Endoscopic surveillance can be elected to inform the time of prophylactic total gastrectomy by detecting early SRCC. The pale area is the most common endoscopic lesion harbouring SRCC but can be difficult to diagnose. We previously described the Cambridge criteria to aid endoscopic detection and characterisation of early SRCC in pale areas. [1] The criteria include six features: A, round shape (opposed to linear); B, well demarcated borders (opposed to faded margins); C, focally irregular microvessels; C + +, diffusely irregular microvessels; D, irregular microsurface pattern; and E, reproducibility in dynamic view. The aim of this study was to validate the Cambridge criteria prospectively and to develop machine-learning (ML) tool based on these criteria to improve the effectiveness of the endoscopic diagnosis.

Methods CDH1-PV carriers undergoing endoscopic surveillance were prospectively recruited at a single institution between Jan 2020 and Aug 2023. Endoscopies were performed with white light and narrow band imaging with magnification. Pale areas were labelled by three HDGC experts during live examination or post-hoc video analysis using endoscopic features and blinded to current endoscopy histology. The performance of the criteria was analysed based on the sum number of positive features (simple score), individually or as a panel. Afterwards the cohort was randomly split into training and test sets and an explainable ML model, decision tree (DT), was trained and tested based on experts' labels. Model training and testing were repeated 100x on randomly split datasets, and the performance was evaluated with mean and 95 % Confidence Interval (CI). By analysing the ML's diagnostic logic and integrating it with experts' experience, we generated a clinically applicable DT rule.

Results Overall, 79 CDH1 + individuals (60.8 % females) were enrolled with an average age of 41.5yr. In total, 215 endoscopic lesions (pale areas) were included from 132 endoscopies, of which 54 (25.1 %) were pathologically confirmed SRCC. The performance of each feature is shown in Table 1. Notably all neoplastic lesions were reproducible from different visualisation angles upon dynamic imaging (E +). Using a threshold of ≥ 3 positive features, the simple score achieved an accuracy of 81.4 %, sensitivity of 85.2 % and specificity of 80.1 % in the cohort. The ML model achieved a significantly higher accuracy (84.4 %, 95 % CI: 83.7 %-85.1 %) than the simple score (81.7 %, 95 % CI: 81.1 %-82.4 %,

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p < 0.001) in the test sets. The feature importance ranked by the decision tree is C > B > A > C + + > D. An easy-to-use DT was derived from the diagnostic logic of ML.

Conclusions Specific features of pale areas can be combined to give high accuracy in predicting SRCC in HDGC. A user-friendly DT based diagnostic rule potentially improves performance of the criteria. A prospective validation of the DT is ongoing in an independent cohort.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP254 Development of an artificial intelligence model to identify duodenal polyps in patients with Familial Adenomatous Polyposis (FAP)

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Aims To develop an convolutional neural network model to identify duodenal polyps in patients with familial adenomatous polyposis.

Methods We utilized a database of FAP patients who underwent upper GI tract endoscopic surveillance from 1989-2023 at our institution, to obtain high quality images (lacking significant artifact – blood, instruments, blurring) containing duodenal polyps. Ampullary images were not included to avoid bias. Annotation of polyps were completed using LabelStudio. We then employed nnUNet framework, a self-configuring method for deep learning-based biomedical image segmentation, to automate segmentation of duodenal polyps. Our dataset of 870 images was divided into training, validation, and test sets (80/10/10 % split). The model was trained for 500 iterations. The primary metric for evaluating model performance was Dice coefficient, a statistical score between 0 (no agreement) and 1 (perfect agreement) used to gauge similarity between the model predictions and ground truth annotations. Using manual counting, we also compared the ability of the model to identify polyps on the set of 87 test images.

Results Per manual count, mean polyps/image was 4.2 (range 1-27, median 2) and by prediction model mean was 4.0 (range 1-19, median 3). On 63/87 images (72.4 %) the model missed 0 polyps, on 73/87 (83.9 %) ≤ 1 polyp was missed, and on 84/87 (96.6 %) ≤ 4 polyps were missed. Overall, mean missed polyps per image was 0.8 (range 0-14) and 297/367 (80.1 %) duodenal polyps were identified by the model. In the 3 images with > 4 missed polyps, mean polyp number was 22.3 (range 16-27). Falsely identified polyps occurred in 34/87 (39.0 %) with a mean of 0.6 per image (range 0-4). There was complete match (no missed polyps, no false positive polyps) in 39/87 (44.8 %). On our test set, the Dice coefficient was 0.7.

Conclusions We successfully developed a model to identify duodenal polyps in FAP patients with reasonable accuracy. While the Dice coefficient of 0.7 is modest in comparison to models created for colon polyp detection, the differing aspects of anatomy and background mucosa in the duodenum makes this a challenging location for both human and computer modeling detection. Beyond this, the simple rate of polyp detection, likely a better marker of achieving our goal, was > 80 %, with relatively low rate of false polyps (< 40 % of images, mean of < 1 per image). This model does appear to need refinement in situations of higher polyp burden. This model may aid in managing duodenal polyposis in FAP patient, but larger prospective analyses are needed to assess its real-time clinical success.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP255 Clinical usefulness of AI-assisted small bowel localization and lesion detection in capsule endoscopy

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DOI 10.1055/s-0044-1782956

Aims Although various AI models have been developed to detect small bowel (SB) abnormalities in capsule endoscopy (CE), AI models that simultaneously enable the localization of SB and detection of SB abnormalities were rarely developed. This study aimed to develop an AI model that automatically discriminated SB from stomach and colon, diagnosed multiple abnormalities in CE, and compared its performance to that of experienced endoscopists.

Methods We developed a CNN model using 87,005 CE images (11,925 stomach, 33,781 SB, and 41,299 colon) for localization and 28,405 CE images (1,337 erosion/ulcer, 126 angiodysplasia, 494 bleeding, and 26,448 normal and other images) for detection of SB abnormalities. The whole dataset was divided into training, validation, and test sets of 7:1:2 for localization and 8:1:1 for detection of SB abnormalities. To evaluate the clinical usefulness of the CNN model, we compared the performance (reading time, the accuracy of localization, and lesion detection in per-patient analysis) of conventional reading (endoscopist-alone reading) to that of AI-assisted reading, which was performed using the summary version of CE video made by newly developed CNN model.

Results For the internal test dataset, the sensitivity and specificity to discriminate stomach, SB, and colon were 98.7 % and 99.6 %, 96.1 % and 97.9 %, and 97.1 % and 97.8 %, respectively. And the accuracy for detection of erosion/ulcer, angiodysplasia, bleeding, and normal and others was 88 %, 100 %,100 %, and 100 %, respectively. Comparing the performance of AI-assisted reading and conventional reading of 22 external validation datasets, the reading time was significantly reduced in AI-assisted reading than conventional reading (53.9 min vs. 8.7 min, P < 0.001). The accuracy for the localization of SB (88.6 % vs. 72.7 %, P = 0.07) and the detection rate of SB abnormalities (77.3 % vs. 77.3 %, P = 1.00) was comparable between conventional reading and AI-assisted reading, respectively

Conclusions Our CNN model significantly decreased CE reading time but revealed comparable performance to experienced endoscopists in detecting SB abnormalities, which showed the clinical usefulness and potential of AI application on CE reading in clinical practice.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Adverse events and unfavourable outcomes

27/04/2024, 10:30 – 11:30 **Room 8**

OP268 Delayed post polypectomy bleeding. Risk factors associated with the presence of high-risk stigmata on the polypectomy site. Is expectant management possible?

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DOI 10.1055/s-0044-1782957

Aims Delayed post polypectomy bleeding is the most frequent complication of endoscopic polypectomy. Endoscopy with application of endoscopic hemostasis is widely used to treat this condition. Classification of lesions in high risk (active bleeding, visible vessel, adherent clot) and low risk stigmata (flat pig-

mented stigma, clean base) has been suggested. Endoscopic hemostasis is usually not warranted for the latter. Cconservative management of the syndrome has been proposed for certain cases, however limited data are currently available.

We aim to study risk factors associated with the presence of high or low risk stigmata on the polypectomy site and the need or not for endoscopic hemostasis.

Methods A retrospective documentation and analysis of patient characteristics hospitalized in the gastroenterology department of our hospital due to delayed post polypectomy bleeding during the period January 2015 to July 2023 was made. A statistical analysis of relevant clinical and endoscopic variables possibly associated with the presence of stigmata on repeat endoscopy was conducted.

Results 98 patients were hospitalized due to delayed post polypectomy bleeding during this time period. Endoscopy was conducted in 86 cases, and high-risk stigmata were identified in 72. Hemodynamic instability [OR:1.8 (0.091-35.29), p value:0.69], need for transfusion [OR:4.41 (0.54-36.0), p value:1.65], shock index>1 [OR:0.57 (0.18-1.85), p value:0.357], large polyp size [**OR less than 1cm :** 0.23 (0.04-1.34) p value: 0.104, **OR 1cm – 2cm** : 0.486 (0.139-1.68) p value:0.256, **OR>2cm:** 0.285, 0.048-1.67, p value: 0.165s] and lack of use of prophylactic hemostatic clips [OR:2.58 (0.67-9.86), p value: 0.163] seem to be connected to the presence of high risk stigmata on the resection bed, however patient sample is too small for safe conclusions. [1–5]

Conclusions Data from our center indicate that most patients presenting with delayed post polypectomy bleeding will benefit from endoscopic re-evaluation. Larger scale studies are required in order to determine which patients with delayed post polypectomy bleeding could be treated conservatively.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP269 A self-assembling peptide reduces delayed bleeding after endoscopic submucosal dissection in the colorectum – a retrospective single center cohort study

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Aims Endoscopic submucosal dissection (ESD) carries the risk of delayed bleeding. A novel self-assembling peptide (SAP) for hemostasis has shown promising results in reducing this risk after endoscopic resection, but there is only little data for the use after ESD. This retrospective trial aimed to compare the delayed bleeding rate (DBR) after ESD with and without application of a novel self-assembling peptide.

Methods All consecutive patients from 01.01.2018 to 31.07.2023 with endoscopic submucosal dissections with or without application of a self-assembling peptide (SAP) after resection and prophylactic hemostasis (coagulation, clipping) were retrospectively included in this study.

The primary outcome was the delayed bleeding rate (DBR), defined by significant bleeding (drop in hemoglobin > 2 g/dL, hematemesis, ongoing hematochezia) within 30 days.

Results In total 225 patients (median age 67; 158 men) who underwent ESD (esophagus [n = 49], stomach [n = 40], duodenum [n = 4], colorectum [n = 132]) were included. The mean lesion size was 43.1 mm (SD: 21.5 mm) with a mean area of 10,46 cm^2 (SD: 6 cm^2). In 108 patients (48 %) the SAP was used after resection. The overall delayed bleeding rate was 10.4 % (23/225), without SAP the DBR was 12.8 % (15/117), after prophylactic application of the SAP it was 7.4 % (8/108) (p = 0,182).

Delayed bleeding rates in the esophagus were in total 0.5 % (1/49), without SAP and with SAP 3.2 % (1/31) and 0 % (0/18), respectively (p = 0,472). In the stomach DBR was 2.5 % (5/40), without SAP 10 % (2/20) and in the SAP-group 15 % (3/20) (p = 0.653). After ESDs in the duodenum no delayed bleedings occurred without using the SAP (0/4).

The delayed bleeding rate after ESD for lesions in the colorectum was 12.9 % (17/136), after application of the SAP this was significantly lower (7.14 %; 5/70) compared with not using the product (18.2; 12/66) (p = 0.050). In logistic regression analysis these findings were independent of the number of clips used and the size of the lesion. No adverse events regarding the product occurred.

Conclusions The use of a self-assembling peptide after ESD may help to reduce delayed bleedings especially in the colorectum. It is easy to use and safe. These findings have to be further clarified by prospective randomized controlled trials.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP270 Outcomes after perforation following colorectal endoscopic submucosal dissection an predictive factors : results from a large prospective multicentric cohort of 4025 procedures

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DOI 10.1055/s-0044-1782959

Aims Despite higher en-bloc and curative resection rates, better carcinologic outcomes and lower recurrence rates, colorectal endoscopic submucosal dissection (ESD) development is limited in the West regarding the higher rate of adverse events, especially perforations, than piece-meal endoscopic mucosal resection. This study aims to analyze prevalence, risk factors and clinical outcomes of perforations following colorectal ESD.

Methods All colorectal ESD performed in 12 French centers and 1 Belgian center between September 2019 and September 2022, were prospectively included, with additional retrospective analysis of patients with per-procedural (PPP) or delayed (DP) perforations. The main outcome was the rate of conservative treatment for perforation.

Results PPP (n = 314) or DP (n = 22) occurred in 336/3770 procedures (mean ± SD lesion size 54,8 ± 26 mm, median procedure time 57 min [IQR 35-90], 2353/3770 [62,4 %] of colonic lesions). Conservative management was effective in 308/336 perforations (91,7 %), of which 304/314 (96,8 %) were PPP. In total, surgery for perforation was required for 28/3770 ESD (0,8 %). Among patients who underwent surgery, 4/10 (40 %) in the PPP group and 7 (38,9 %) in the DP had a stoma confection. Median size of PPP was 3,0 mm (IQR 1,0-9,8) and closure were mainly performed with TTS clips (n = 261; 83,1 %, median number of 3 clips [IQR 2-4]). No closure was performed in 23 % of rectal PPP and no rectal PPP required surgery. Antibiotics were administrated in 226 (73,1 %) of PPP, for > 2 days in 205 (65,3 %) patients. Median hospital stay was 2 days (IQR 1-3) after PPP, 7 days (IQR 3-10) after DP and 2 days (IQR 1-2) without perforation (p < 0,0001).In the perforation group, lesions were larger (60,6 ± 31,5 mm vs 54,2 ± 25,3 mm, p = 0,001), with more severe fibrosis (54,7 % vs 25,5 %, p < 0,0001), and En-bloc (87,5 % vs 96 %), R0 (73,5 % vs 88,7 %) and curative resection (71,1 % vs 85,1 %) rates were lower (all p < 0,0001). In multivariate analysis, size > 50 mm (OR 1,55 95 % CI 1,18-2,03), previous resection (OR 1,94 95 % CI 1,35-2,78), distal colonic location (OR 1,55 95 % CI 1,18-2,03), poor maneuverability (OR 1,85 95 % CI 1,35-2,78) and severe fibrosis (OR 4,39 95 % CI 3,15-6,11) were predictive of PPP. After PPP, blood examinations on day 1 did not predict surgery but a perforation size > 5 mm (OR 9,53 95 % CI 2,39-37,96), fever (OR 9,53 95 % CI 2,36-37,96) and abdominal pain (OR 26,64 95 % CI 3,32-213,77) were predictive.Only proximal colonic location (OR 1,94 95 % CI 1,35-2,78) and severe fibrosis (OR 5,28 95 % CI 1,68-16,64) were identified as risk factors for DP in univariate analysis.

Conclusions The clinical burden of PPP is limited with high rates of conservative treatment. Surgery is a very rare event, but DP is difficult to predict, and patients should be clearly informed about the benefits and the risks of ESD.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP271 "Loop9" closure technique for mucosal defects after colorectal endoscopic submucosal dissection

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DOI 10.1055/s-0044-1782960

Aims Mucosal defect closure after colorectal endoscopic submucosal dissection (ESD) may decrease the incidence of delayed adverse events (AEs) such as bleeding and perforation. We developed and reported a novel single-channel endoscopic closure technique, "Loop9," using readily, commercially, and widely available materials. This study aimed to assess the feasibility of the Loop9 method for complete mucosal defect closure after colorectal ESD.

Methods This study included one hundred and nine lesions in 106 patients who underwent colorectal ESD. Loop9 was delivered through a single instrument channel (3.2 mm) and released at the defect site. After being anchored by two clips positioned at opposite sides of the defect edge, loop9 was tightened by pulling the end of the suture intraluminally using biopsy forceps for approximation. Additional conventional clips were placed to achieve complete closure. The primary outcome was the Loop9 closure success rate. Secondary outcomes were the procedure time, sustained closure rate, number of additional clips, and the incidence of delayed AEs.

Results Complete closure was achieved in 96.3 % (105/109) cases. The median size of the mucosal defects was 3.0 cm (IQR: 2.5–3.7, range: 2.0–10.4). The median closure time was 15 minutes (IQR: 12–17). The sustained closure rate was 96.1 % (101/105). The median number of additional clips deployed was 5 (IQR: 4–6). Stenosis requiring balloon dilatation was observed in one patient; however, no post-ESD bleeding or delayed perforation was noted.

Conclusions The use of Loop9 for mucosal defect closure after colorectal ESD proved both feasible and effective, achieving high success and sustained closure rates, along with favorable procedure times. This method is reproducible and cost-effective, bypassing the need for expensive devices or double-channel endoscopes. Additionally, it eliminates the necessity for scope reinsertion. However, to further validate these findings, prospective, randomized, and comparative studies involving larger defects and a greater number of patients are warranted. [1]

Conflicts of interest Inoue H is an advisor at Olympus Corporation and Top Corporation. He has also received educational grants from Olympus Corp. and Takeda Pharmaceutical Co.

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OP272 1 mm of preserved muscularis propria on MRI accurately identifies rectal cancers suitable for local excision in the intermuscular plane

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DOI 10.1055/s-0044-1782961

Aims Adequate case selection for intermuscular local excision (LE) of early rectal cancer (RC) using optical diagnosis and radiological imaging remains challenging and may lead to both unnecessary radical surgery, as well as incomplete LE of ≥ pT2 RC. We aimed to investigate whether preservation of at least 1 mm of muscularis propria on MRI, evaluated using a systematic reporting approach, can identify RC suitable for LE in the intermuscular plane.

Methods Twelve abdominal radiologists from the Netherlands underwent a one-day training session by an expert radiologist (GB).After training, all radiologists reassessed a retrospective cases series of pseudonymized MRI scans, blinded to original reports and final histology. Scans were obtained from consecutive patients suspected of having (at least) deep submucosal invasive RC at optical diagnosis between 2018 and 2022, from 2 academic centers in the Netherlands. The primary outcome was the accuracy, sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) of the 1 mm preservation criterion on MRI in identifying tumours suitable for LE based on expert radiologist, study radiologist, and consensus diagnosis. Tumours suitable for LE were defined as RC not invading beyond the circular m. propria ($\leq pT2_{Circ}$). Consensus diagnosis was based on the agreement of both study radiologists, with the expert diagnosis being decisive in case of disagreement.

Results 245 patients were included (median age 67 years [IQR 13], 71 % male, 87 % ASA I/II). The original MRI report showed cT0 in 2 (0.8 %), cT1 in 7 (3 %), cT1-T2 in 141 (58 %), cT2 in 40 (17 %), cT3 in 51 (21 %), and cT4 in 1 (0.4 %) patient (not assessable in 3). Histology showed 18 (7 %) non-invasive polyps, 110 (45 %) pT1 RC, 56 (23 %) $pT2_{circ}$ RC, 21 (9 %) $pT2_{long}$ RC, 39 (16 %) pT3 RC, and 1 (0.4 %) pT4 RC. Overall accuracy of MRI in identifying RC suitable for intermuscular LE was 80 % (95 % CI 75-85) for expert radiologist diagnosis and 77 % (95 % CI 71-82) for trained study radiologists (range individual radiologists: 64 %-95 %). Sensitivity, specificity, PPV, and NPV were 84 %, 69 %, 89 %, and 59 % for expert diagnosis, and 78 %, 75 %, 91 %, and 53 % for trained study radiologists, respectively. Through consensus diagnosis, accuracy at the level of the

expert radiologist was achieved (accuracy: 81 %, sensitivity: 84 %, specificity: 74 %, PPV: 91 %, NPV: 60 %)

Conclusions Preservation of at least 1 mm of the m. propria on rectal MRI is an accurate criterion which is easily trained and that can support adequate case selection for rectal-preserving intermuscular LE of RC.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP273 Risk stratification of Submucosal Invasive Cancer in Non-Granular Laterally Spreading Tumors: a Western tertiary referral centre experience

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DOI 10.1055/s-0044-1782962

Aims According to European guidelines, Non-Granular Laterally Spreading Tumors (LST-NGs) require en-bloc resection due to the increased risk of covert submucosal invasive cancer (SMIC). The overall reported SMIC of LST-NGs is 11.7 %, varying from near 5 % for flat elevated (FE) to near 30 % for pseudo-depressed (PD) subtypes. However, this risk stratification is mainly based on data from Asian cohorts, while Western data on LST-NGs management are heterogeneous and poor.Thus, we aimed to evaluate risk stratification of SMIC in a Western cohort of LST-NGs according to endoscopical features.

Methods All LST-NGs evaluated for resection in our academic tertiary referral centre from 2016 to 2022 and prospectively collected in a dedicated database (comprehending clinical, endoscopical and histological characteristics) were analysed. Univariate and multivariate analysis were conducted to assess predictors of covert SMIC.

Results We included 197 LST-NGs, 149 (75.6 %) FE and 48 (24.4 %) PD. Mean age of patients (F: 39 %) was 69.1 ± 8.8 (yrs ± SD). Mean lesions size was 22.4 ± 8.6 (mm ± SD). Vascular pattern was JNET 2A in 162 (82.2 %), JNET 2B in 35 (17.8 %), while pit pattern was invasive (Kudo Vi) in 30 (15.2 %) and non-invasive (Kudo II-III) in 167 (84.8 %) .

SMIC was found in 22 (11.2 %) of LST-NGs, 17 (77.3 %) were PD and 5 (22.7 %) were FE. Of these, 8 (36.4 %) underwent surgery upfront and 14 (63.6 %) were treated endoscopically, with an en-bloc resection in 85.7 % of cases. Statistically significant predictive factors of SMIC were found to be: size > 20 mm [OR (95 % CI): 4.55 (1.62; 16.2)], PD subtype [OR (95 % CI): 15.8 (5.77; 51.0)], Kudo Vi [OR (95 % CI): 42.4 (14.4; 147)] and JNET 2b [OR (95 % CI): 29.7 (10.4; 99.4)]. At multivariate analysis, Kudo Vi was the only independent predictor of SMIC.

Conclusions Our data confirm that in LST-NGs size > 20 mm, PD morphology, Kudo Vi and JNET 2b are strongly associated with increased risk of SMIC, comparable to what shown in Eastern series. Furthermore, these data underline how an accurate optical diagnosis is crucial for establishing the best therapeutic approach. [1–4]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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From novice to expert: Endoscopy training for success

27/04/2024, 10:30 – 11:30 **Room 11**

OP256 Development of a performance assessment scale for upper gastrointestinal endoscopy in simulation training

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DOI 10.1055/s-0044-1782963

Aims Digestive endoscopy need several years of practice to achieve appropriate, safe and effective procedure. To our knowledge, there is no validated performance evaluation scale for gastroscopy. The aim of our study is to create an evaluation scale in this field.

Methods We conducted a prospective study from September 2022 to April 2023, to create and develop an upper gastrointestinal endoscopy performance evaluation scale based on the first two stages of the Downing process.

Step 1: Creation of the scale's content using the Delphi method: obtaining a consensus from a group of experts on a specific problem by consulting them remotely, individually, and independently. Items were retained if they had a consensus of more than 50 % of the experts, and item reformulations, additions and deletions were also possible.

Step 2: Response process involving real-life testing of the new scale by confirmed endoscopists assessed by independent, mutually blinded assessors, with the aim of identifying discordant items, and possibly modifying some of them.

Results The initial pre-scale was created by a scientific committee, comprising 4 practitioners with different levels of expertise, based on the literature review and the recommendations of learned societies. Then, using the Delphi method, 26 experts from one country in the field of digestive endoscopy were contacted by e-mail; 15 responded positively and were included in the study. The experts included 7 MD-PhD , 6 hospital doctors and 2 liberal doctors.Two successive rounds enabled us to obtain two distinct pre-scales: first called "universal scale", which is complete, can be performed under any conditions, and covers the essential stages of a complete upper gastrointestinal endoscopy, and a more "specific scale" concerning the performance of certain specific therapeutic or diagnostic gestures, which can be modulated according to the simulation sessions. Addition of 15 items and removal of 7 items to the first round. In the second round, 16 items have been changed or deleted. The "response process" evaluation in real-life conditions was carried out on 10 senior endoscopists from our university hospital center by two independent evaluators. No significant discrepancies were found. A total of 58 items were created, divided into the two distinct scales to suit any simulation session. These scales include the importance of endoscopic gestures, photography of anatomical areas of interest and all the essential technical steps involved in performing a gastroscopy.

Conclusions This study led to the creation of 2 performance evaluation scales for gastroscopy. This pedagogical study, allow to harmonize the evaluation of learners' performance to optimize their endoscopic training, in a wide range of situations (clinical or simulation). These scales still need to be definitively validated in the final stages of the Downing process, to assess their use and benefits for the learner.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP257 Impact of a structured capsule endoscopy training program on capsule endoscopy proficiency: a 3-year prospective Portuguese study

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Aims There is scarce evidence regarding the outcomes of capsule endoscopy (CE) training programs and its impact amongst trainees. We aimed to analyze the impact of a CE training program on CE proficiency with a new developed CE training assessment tool, the pre and post Capsule Endoscopy Training Assessment (CETA). Additionally, we investigated whether prior experience in flexible endoscopic techniques or CE could influence participants' CETA mean score and achievement of a posttraining learning goal.

Methods A 3-year prospective study was conducted and included gastroenterologists' residents and physicians who attended our hands-on CE training program. Each participant performed pretraining and posttraining CETA, consisting of theoretical questions and interpretation of segmented CE videos (practical component) and ranging between 0-100 %. The difference between theoretical, practical and overall pretraining and posttraining mean CETA score was compared and a posttraining learning goal was defined (overall posttraining mean CETA score of ≥ 90 %).

Results A total of 57 participants were included. The overall, theoretical and practical participants' mean CETA score was significantly different between pretraining and posttraining (68.1 vs 94.4, P < 0.001, respectively; 67.2 vs 94.4, P < 0.001, respectively and 68.5 vs 94.4, P < 0.001, respectively). Fifty participants (87.7 %) achieved the posttraining learning goal and no significant differences regarding background variables were identified. Compared to participants without experience, those with previous contact with upper gastrointestinal endoscopy, colonoscopy, and device-assisted enteroscopy had higher overall pretraining mean CETA score (70.3 vs 54.5, P = 0.011; 70.0 vs 57.6, P = 0.037; 78.6 vs 64.4, P = 0.003, respectively), lower mean difference between overall pretraining and posttraining CETA score (8.0 vs 14, P = 0.001; 8.0 vs 13, P = 0.003; 6.0 vs 10.0, P = 0.007, respectively) but not significantly different overall posttraining mean CETA score (94.0 vs 96.6, P = 0.3; 93.9 vs 97.0, P = 0.192; 96.2 vs 93.7, P = 0.215, respectively). Compared to participants without experience, those with previous contact with CE had higher overall pretraining (74.7 ± 2.5 vs 58.4 ± 3.1, P < 0.001, respectively), lower mean difference between overall pretraining and posttraining CETA score (7.0 ± 5.0 vs 11 ± 4.0, P = 0.001, respectively) and higher overall posttraining mean CETA score (95.9 ± 1.1 vs 92.1 ± 1.3, P = 0.029, respectively).

Conclusions Although further validation is required, CETA seems to be a useful tool in assessing the beneficial impact of a structured hands-on CE training program on CE proficiency. We demonstrated a significant improvement in participants' mean CETA score after training, with the majority achieving the posttraining learning goal. The magnitude of improvement in CE proficiency after training was different based on previous experience in flexible endoscopic techniques and CE, being the least experienced participants those who benefited the most from CE training.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP258 Augmented Colonoscopy with Computer-Aided polyp characterization – evaluation of the performance of an artificial intelligence application in the classification of colorectal polyps

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Aims The aim of this study is to evaluate the performance of inexperienced endoscopists using a commercially available computer-aided diagnosis (CADx) device in correctly diagnosing non-adenomatous polyps.

Methods In this prospective, observational cohort study patients undergoing artificial intelligence (AI) enhanced (GI Genius) colonoscopy performed by inexperienced endoscopists (< 500 colonoscopies) were included. The AI diagnoses (non-adenoma, adenoma) and the optical diagnosis (OD) made with the help of AI, which did not have to coincide, were noted. Resected polyps were recorded and recharacterized without AI information by experienced endoscopists (> 2000 colonoscopies). Optical diagnoses were compared with the corresponding histological findings. The primary outcome was the positive predictive value (PPV) of inexperienced endoscopists using AI in correctly classifying non-adenomatous, diminutive (≤ 5mm) polyps in the rectosigmoid in comparison to the PPV of the experienced group without AI information and AI output alone. The secondary outcome was the accuracy of AI in correctly diagnosing adenomas in the entire colon.

Results In total, 225 patients (51.1 % female, 48.9 % male), mean age: 63.8 (SD ± 12.1) years were recruited over a 13-month period. Eleven inexperienced endoscopists and 5 experienced endoscopists participated in this study. Indications for colonoscopy were screening (38.2 %), surveillance (20.9 %), elective polypectomy (15.6 %), GI disturbances (14.7 %), bleeding/anemia (4.4 %) and unclassified (6.2 %). In total, 634 polyps, including 291 (45.9 %) adenomas, 240 hyperplastic polyps (37.9 %), 25 sessile serrated lesions (3.9 %), 2 carcinomas (0.3 %) were found. In the rectosigmoid 250 polyps were removed (39.4 %), 218 of which were smaller than or equal to 5mm. Inexperienced endoscopists with the help of AI achieved a PPV of 90.1 % (95 % CI: 86.57 % – 92.79 %) concerning non-adenomatous, diminutive (≤ 5mm) polyps in the rectosigmoid vs. 90.3 % (95 % CI: 86.18 % – 93.23 %) in the expert group without AI. The AI on its own achieved a PPV of 93.2 % (95 % CI: 88.81 % – 95.89 %). Throughout the colon sensitivity, specificity, and accuracy of AI for adenomas were 82.1 % (95 % CI: 77.15 % – 86.38 %), 61.1 % (95 % CI: 55.67 % – 66.42 %), 70.8 (95 % CI: 67.07 % – 74.39 %), respectively.

Conclusions Optical diagnosis made with the help of AI achieves a ≥ 90 % positive predictive value for diminutive polyps with non-adenomatous histology in the rectosigmoid, allowing a "resect-and-discard" or "diagnose-and-leave" strategy even for inexperienced endoscopists in accordance with the PIVI (Preservation and Incorporation of Valuable Endoscopic Innovation) criteria. Of note, AI alone achieved higher precision than when used by inexperienced endoscopists or experienced endoscopists without AI support. However, the difference did not reach statistical significance. In the colon as a whole, AI performance did not achieve sufficiently reliable results in diagnosing adenomas in our study.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP259 Between Vision and Reality: Results From A Pan-European Survey on Endoscopic Retrograde Cholangiopancreatography Training Conditions

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Aims Endoscopic retrograde cholangiopancreatography (ERCP) is an advanced endoscopic procedure associated with a relevant risk of complications underscoring the importance of high-quality training. Despite existing guidelines, real-world data regarding ERCP training conditions and adherence to these recommendations remain limited. This Pan-European survey aims to explore the perceptions surrounding ERCP training conditions.

Methods A survey was distributed through the friends of the Young United European Gastroenterologists (UEG) Talent Group network. Inclusion criteria were physicians working in a UEG member state and regularly performing ERCP. Likert-scales as well as single- and multiple-choice questions were utilized.

Results In total, 649 out of 1035 respondents were eligible for analysis. Participants were based in 39 countries. 228 were identified as trainees, 225 as trainers, and 196 regularly performed ERCP without being in either category. The mean age was 40 years (IQR 36 to 48) with 72.0 %, 27.6 %, and 0.3 % identifying as male, female, and non-binary, respectively. Eighty percent of respondents found that a structured training regimen to be desirable or very desirable. However, only 14 % of trainees and 28 % of trainers reported having such a structured program in their institutions. Mandatory self-assessment was reported only by 6 % of trainees and 11 % of trainers. Majority of trainees (75 %) and trainers (86 %) agreed or strongly agreed that training should be concentrated within centers meeting certain quality metrics. Concerning procedure volume as a quality metric, 78 % indicated that a threshold of 200 annual ERCPs should be used. Nevertheless, 30 % of trainees pursued training in centers with < 200 annual ERCPs. Regarding number of annual procedures, 95 % of trainers reported performing > 50 ERCPs, in stark contrast with 71 % of trainees performing < 50 ERCPs. Dividing centers into low and high volume (cut-off: 200 ERCPs/year) revealed that a low annual procedure volume of < 50 was more frequent at lower volume centers vs. higher volume centers (86 % vs. 63 %, respectively).

Conclusions While structured training and concentration of training efforts within European centers meeting specific quality metrics are desirable, the survey exposed the low availability of structured training programs and that around 30 % of trainees are practicing at low-volume centers. These data could be interpreted as motivation to further improve ERCP training conditions and ultimately patient care throughout Europe.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP260 Endoscopic retrograde cholangiopancreatography training using a silicone simulator fabricated using a 3D printing technique

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Aims Endoscopic retrograde cholangiopancreatography (ERCP) training remains challenging; no suitable training model properly simulates the anatomical and realistic features encountered during the procedure. This study used 3D printing techniques to develop and optimize a portable ERCP training simulator and to implement basic and advanced practical techniques. Subsequently, we aimed to determine whether endoscopy trainees acquired proficiency in ERCP techniques and assess any improvements in their skill levels from using this model.

Methods An ERCP training model was generated using 3D printing techniques, including five distinct interchangeable and transparent ampullar–common bile duct (CBD) modules. A prospective study using this model was conducted with ten trainees. The technical success rate and examination times for duodenoscope insertion and biliary cannulation were evaluated. In addition, the successful plastic-stent insertion rate and trainee satisfaction were measured.

Results These training models simulated all steps of the ERCP procedure; fluoroscopic guidance was not required because of the transparency of the ampulla-CBD module. The success rates for duodenoscopy, cannulation, and plastic stent insertion were 94, 100, and 92 %, respectively. The mean satisfaction scores for duodenoscope insertion, cannulation, and plastic stent insertion were 4.4, 4.7, and 4.6 on a 5-point scale, respectively. Five attempts decreased the insertion time ($R = -0.591$, $P < 0.001$) and cannulation time ($R = -0.424$, $P = 0.002$). [1–2]

Conclusions This ERCP-training silicon model is durable, simulates ERCP techniques easily, and helps trainees improve their ERCP techniques.

Conflicts of interest C-I. Kwon has a consulting or advisory role at Boston Scientific Korea, M.I.Tech, S&G Biotech, and KOS Wire. JC Kim and GB Kim are research workers at Anymedi Inc., which is developing 3D-printing products related to the research being reported. The other authors have no conflicts of interest or financial ties to disclose. In addition, there are no competing interests between the medical doctors and the business parties involved in this study.

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OP261 Establishing Standards for Gastrointestinal Endoscopic-Related Fluoroscopy: An International Expert Consensus Using a Modified Delphi Process

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Aims The use of fluoroscopy in gastrointestinal endoscopic procedures offers valuable insights but also raises concerns about radiation exposure. This study aims to develop evidence-based guidelines for the safe and effective use of fluoroscopy in such procedures, prioritizing the safety of patients and healthcare workers.

Methods A modified Delphi method was employed to achieve consensus among 46 experts from six continents. Three rounds of voting were conducted, and consensus was defined as at least 80 % agreement. Thirty-one statements achieved consensus in the second round, focusing on patient safety, staff safety, education, pregnancy, and family planning. The statements were rated on a scale of 1 to 10 in the third round.

Results In our study, 46 experts, consisting of 34 physicians therapeutic endoscopists and 12 endoscopy nurses, participated from six continents, with 45.6 % female representation (n = 21). Following three rounds of voting, a total of 43 item statements were generated in the first round, covering various categories including General Considerations, Education, Pregnancy, Family Planning, Patient Safety, and Staff Safety. Out of these, 31 statements achieved consensus after the second round. The accepted statements were categorized into General Considerations (6 questions), Education (10 statements), Pregnancy (4 statements), Family Planning (2 statements), Patient Safety (4 statements), and Staff Safety (5 statements). In the third round, the statements received mean scores ranging from 7.28 to 9.36 on a scale of 1 to 10, with up to 87.18 % of responses scoring them as a very high priority.

Conclusions This study presents consensus-based standards for the safe use of fluoroscopy in gastrointestinal endoscopic procedures, addressing the well-being of both patients and healthcare workers. These guidelines aim to mitigate the risks associated with radiation exposure while maintaining the benefits of fluoroscopy, ultimately promoting a culture of safety in healthcare settings.

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ESD and EMR: Benefits and harms

27/04/2024, 10:30 – 11:30 **Room 10**

OP262 Long-term outcomes of patients with snare tip assisted resection (STAR) of colorectal polyps. A single centre experience in UK

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Aims Endoscopic submucosal dissection (ESD) is effective for removal of complex colorectal lesions but is challenging. Knife-assisted snare resection is an alternative well established technique for removal of certain complex polyps with and without fibrosis. This technique has been described with both knife and snare tip. In this study, we aimed to examine the outcomes of snare tip assisted resection (STAR) in the removal of colorectal lesions.

Methods All polypectomies using STAR technique were undertaken by a single operator between June 2014 to August 2023. Indications for using STAR tech-

nique were "Complex Colorectal lesions" which included polyps with features of early malignancy (< 2cm), recurrent lesions, scarred lesions from previous incomplete resection, polyps with flat components and for lesions identified in patients with colitis. Patients were followed prospectively to examine recurrence rates after polypectomy using STAR technique.

Results 94 complex colorectal lesions were removed using STAR technique in 92 patients. Median age 71.4 (IQR 65.7-77.2); 54 % male; a median follow up of 1.3 (IQR 0.6-3.0) years. Median size of the lesion 19 (IQR 10-25)mm. Of 94 lesions, 68 (72.3 %) lesions were suspected to have endoscopic features of early malignancy and 24 (25.5 %) were recurrent/residual lesions post polypectomies. Of 21 neoplastic lesions on histology, 14 (66.7 %) had complete resection, out of which 11 (52.4 %) had a curative sm1R0 resection requiring no further treatment. Of 10 patients who had surgical resection for neoplastic lesions, only 3 patients were found to have residual lesions. In patients with recurrent lesions as indication for STAR technique, only 2 small recurrent lesions were seen on surveillance procedure which was managed with cold biopsy and Argon Plasma Coagulation. Seven patients had adverse events: six had bleeding during the procedure which was managed with endo-clips. Only one patient had a perforation requiring surgery. Overall, the significant complication rate was 7.4 %.

Conclusions STAR is an effective technique in removing selective small suspicious lesions, with 52.4 % neoplastic lesions not requiring any further surgical intervention. It is a highly effective technique in treating recurrent/residual lesions. Inspite of ever expanding usage of ESD technique (even in Western World), STAR technique has a role in selective cases.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP263 Practice Patterns of Polyp Assessment During Colonoscopy: An International Cross-Sectional Analysis

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Aims Colonoscopy has been established as the gold standard for colorectal cancer screening and diagnosis, with its capacity to detect and remove precancerous polyps. However, there remains substantial variability in the assessment of polyps during colonoscopy, particularly within the Gulf region, where limited data exist regarding evidence-based guidelines for polyp detection, assessment, and management. The primary aim of this study is to evaluate the practice patterns of endoscopists regarding polyp evaluation during colonoscopy. The secondary aims are to identify factors that influence endoscopist's polyp assessment and endoscopic tattoo practices.

Methods A 21-question self-administered survey was distributed amongst physicians who perform colonoscopy by using an electronic cloud-based survey tool. Statistical analysis was performed to evaluate factors affecting endoscopist's practice patterns and to assess the level of adherence to current consensus recommendation.

Results A total of 102 physicians participated in the survey, with the majority being male (80.21 %) and having a mean of 11.53 ± 10.28 years of independent practice in performing colonoscopies. Among the participants, 87.25 % (n = 89) were gastroenterologists, 6.86 % (n = 7) gastroenterology trainees, 4.9 % (n = 5) surgeons, and 0.98 % (n = 1) general practitioners. Approximately half of the participants worked in academic settings (49.02 %, n = 50), while the other half practiced in non-academic settings (50.98 %, n = 52). Polyps exhibiting high-risk features suggestive of deeper invasion were the predominant referral criteria to advanced endoscopists for advanced resection, recognized by 58.51 % (n = 55/94) of participants. Anatomically challenging locations of polyps was the second most prevalent reason for referral, acknowledged by 35.11 % (n = 33/94) respondents, followed by large polyps greater than 20 mm, selected by 32.98 % (n = 31/94) respondents. The predominant reason advocating for surgical referral was the presence of high-risk features indicative of deep invasion, chosen by 60.78 % (n = 62/102) respondents. There is a wide variation in the frequency of utilization for various advanced endoscopic imaging and classification modalities amongst clinicians. Regarding tattoos, transverse, sigmoid and descending colon were the most frequent sites for tattoo placement (21.2 %, n = 52; 20 %, n = 49; 19.6 %, n = 48, respectively). The cecum and rectum were less favored sites for tattoo placement (8.2 %, n = 20; 6.1 %, n = 15, respectively). Interestingly, a notable proportion, represented by 5.7 % respondents (n = 14) indicated that they would not place a tattoo in any segment. [1–3]

Conclusions Overall, gastroenterologists appear more inclined to refer polyps to advanced endoscopists for endoscopic resection compared to surgeons who preferred surgical resection. Tattoo practices and endoscopic imaging utilization also varied greatly amongst endoscopists. This study emphasizes the importance of implementing educational programs aimed at standardizing the clinical approach to polyps.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP264 Recurrence after piecemeal mucosectomy of large lateral spreading tumours – a new predictive model?

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Aims Piecemeal mucosectomy (EMRp) of colorectal lateral spreading tumours (LST) larger than 20mm can be associated with residual lesion (RL) and late recurrence (LR), which occurs in about 25 % and 4 % of lesions, respectively. SMSA and SERT scores help to identify LST with risk of RL and LR. However, they have limitations. More recently, the BCM model, which was created in 2023, seems to perform better than previous scores in predicting recurrence, in North America population. We aimed to evaluate the performance of the BCM model, in identifying high risk LST for RL and LR, in a European country.

Methods Retrospective cohort study, based on a prospectively collected database, covering a period of 6 years (January 2014 to December 2019). EMRp of colorectal LST > 20mm were included. Demographic data, LST and EMRp characteristics, first endoscopic surveillance (1ES – 3-12 months after index colonoscopy) and second endoscopic surveillance (2ES – 12 months after 1ES) were analysed. RL was defined as the presence of a lesion in the 1ES and LR was defined as the presence of a lesion in the 2ES after a negative first surveillance. Statistical analysis was performed using SPSS.

Results 108 LST were analysed. The mean age of the patients was 56.74 years (40-87 years) and 68 % of them were male. Around 53 % were Flat Non-Granular LST, with an average size of 32.28 mm (22-55mm). The 1ES was performed 11 months after EMRp (IQR 16-3) and the incidence rate of RL was 22 %. Only 68 patients underwent 2ES, with a mean interval of 13 months after the 1ES (IQR 16-12) and the incidence rate of LR was 8 %. In univariate analysis, SERT score (X2 [1] = 13.026, p-value 0.007) was associated with an increased risk of RL. In multivariate analysis, SERT score and BCM model were positive correlated with RL (p-value < 0.05). The ROC curves analysis showed an AUC for SERT score, SMSA score and BCM model of 0.731, 0.627 and 0.668, respectively.

Regarding LR, in univariate analysis, location in the right colon and high BCM model were associated with risk of LR (p-value < 0.05). In multivariate analysis, the BCM model, size greater than 40mm, location in the right colon and the SMSA score were positive correlated with presence of LR (p-value < 0.05). The ROC curves analysis showed that the AUC for SERT score, SMSA score and BCM model were 0.638, 0.685 and 0.801, respectively.

Conclusions The incidence rates of RL and LR after EMRp colorectal LST were close to the values reported by international studies. The SERT score, followed by the BCM model, appeared to have an important role in identifying lesions at risk of RL. The BCM model appeared to be superior to SERT and SMSA scores in identifying lesions with an increased risk of late recurrence, filling the gaps in the available scores. [2–8]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP265 What is the difference in outcomes between the ESD of large colonic and rectal lesions? French multicenter prospective cohort of 3901 procedures (FECCO- NCT04592003)

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DOI 10.1055/s-0044-1782972

Aims ESD is the gold standard of treatment for large superficial colorectal lesions in Asia. In Western countries, it is struggling to establish itself as the reference treatment because of its technical difficulty. The aim of this study was to analyze 3 years after the creation of the prospective French ESD colorectal cohort (FECCO), the results of colorectal ESD, with focusing on comparison between colonic and rectal ESD.

Methods Prospective cohort including all colorectal ESD performed in 13 centers between 09/2019 and 09/2022. To address potential biases in baseline characteristics between groups, a 1:1 propensity score matching without replacement was performed. Patients within the control group were matched to patients from the Treated / Exposed group by nearest neighbor matching with a caliper value of 0.2 of the pooled standard deviation of the logs of the propensity score. The objectives of this study were to compare the results of colonic and rectal lesions and rectal lesions treated by ESD in terms of En bloc, R0, curative resection, perforation rate clinically significant delayed bleeding rates and in terms of secondary surgery.

Results Between September 2019 and September 2022, 3901 colorectal ESD were performed in the 13 centers by 35 operators. The average size of the lesions were 54 mm. The lesions were located in the colon in 62 % of cases.
The mean procedure time was 73 min and the mean procedure speed was was 34 mm2/min. The rates of en bloc, R0 and curative resection were 95 %, 88 % and 84 % respectively. After matching we do not find any difference in terms of En bloc(colon 95.8 % vs rectum 96.4 % p = 0.49) and R0 resection (colon 88.3 % vs 86.7 % p = 0.207). Curative resection was more frequent in the colon (85.4 % vs 82.4 % p = 0.03). Perforation was more frequent in the colon (9 % vs 6.7 % p = 0.032) and delayed bleeding more frequent in the rectum (6.9 % vs 4.8 % p = 0.03). From a pathological analysis, after matching on optical diagnosis risk factors (presence of a depressed area, presence of a big nodule, type of LST, presence of a JNET 2B area) Submucosal invasive cancer were slighty more frequent in the rectum than in the colon (11.6 % vs 7.6 % p < 0.0001). No difference was observed in term of secondary surgery (colon 6 % vs rectum 4.7 % p = 0.1).

Conclusions The results of colorectal ESD in France are confirmed on a large scale and the differences between rectal and colonic lesions are negligible when the procedure is mastered leading to the use of ESD as a first line treatment for superficial colorectal lesions larger than 2 cm.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP266 Efficacy and safety of underwater ESD with water pressure method for colorectal neoplasm: a propensity score matching

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DOI 10.1055/s-0044-1782973

Aims Endoscopic submucosal dissection (ESD) for colorectal neoplasm has been widely accepted treatment, but it has been difficult technically not yet, and so various methods and devices have been reported. Therefore, we introduced underwater ESD with water pressure method (U-ESD) from 2020. We evaluated the efficacy and safety of treatment for colorectal neoplasm by U-ESD compared with conventional ESD (C-ESD).

Methods This retrospective observation study investigated 291 patients with 311 colorectal lesions diagnosed endoscopically, and treated between August 2016 and December 2022 enrolled. Of these, excluding one case having 2 lesions resected by C-ESD and WPM-ESD respectively, we identified 290 patients 309 lesions (123 patients 133 lesions in U-ESD group, 167 patients 176 lesions in C-ESD group) and compare the treatment results between the groups. Furthermore, of 311 lesions, excluding four cases of interruption and one case of

piecemeal mucosal dissection, we identified 306 colorectal neoplasms in 291 patients (123 patients 132 lesions in U-ESD group, 167 patients 174 lesions in C-ESD group), analyzed the clinical characteristics of the lesions and compared procedure time. Finally, using propensity score matching, procedure time were compared between matched groups.

Results En bloc resection rates of U-ESD group and C-ESD group were 99 % and 98 % (p = 0.63), respectively. There was no differences in intraoperative perforation rate and delayed bleeding rate of U-ESD group and C-ESD group (perforation: 3.0 % vs 2.9 %(p = 0.92), bleeding: 4.1 % vs 4.2 %(p = 0.96)). In analysis per lesions, the proportion of colonic lesion in U-ESD group was greater than in C-ESD (colon/rectum were 118/14 lesions in U-ESD group and 110/64 lesions in C-ESD group, p < 0.01). Tumor size of U-ESD group was smaller than of C-ESD (23 ± 9.3 mm vs 27 ± 12 mm, p < 0.01). The procedure time was significantly longer in the C-ESD group than WPM-ESD(WPM-ESD: 50 ± 28 min, C-ESD: 65 ± 52 min, p < 0.01). Using propensity score matching, we identified 92 lesions in 92 patients from each of the two groups matched for tumor size and location. After matching, the tumor location (colon/rectum) were 80/12 lesions in both groups. Tumor size of U-ESD group was 23 ± 7.5 mm, and of C-ESD group was 24 ± 8.2 mm. The procedure time of WPM-ESD was significantly shorter than that of C-ESD (49 ± 26 min vs 58 ± 42 min, p = 0.032)

Conclusions Underwater ESD with water pressure method for colorectal tumor can shorten the procedure time.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP267 Efficacy and safety of conscious sedation with midazolam continuous infusion for ESD procedures: a single centre prospective study

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DOI 10.1055/s-0044-1782974

Aims To date sedation protocol for colorectal endoscopic submucosal dissection (ESD) has not been standardized. [1] In a recent Italian survey 48,2 % of responders perform colorectal ESD with anaesthesiologist assisted deep sedation. [2] A randomized controlled trial showed an higher incidence (37.9 %) of procedure discontinuation in upper GI ESD when performed with midazolam administration. [3]

The aim of this study was to analyse the efficacy and safety of colorectal ESD performed under endoscopist assisted conscious sedation with midazolam continuous infusion (MCI)

Methods Consecutive patients who underwent standard and hybrid ESD for colorectal lesions in our institution from April 2017 to September 2023 were prospectively analysed. In all procedures,a bolus of 0.05mg/kg followed by 0.07mg/kg/h continuous infusion of midazolam was administered with any further boluses and additional drugs (meperidine and scopolamine butyl bromide) according to the patient's level of sedation and pain control. The main outcome was the incidence of discontinuation of the procedure due to a poor response to sedation. The second outcome was the incidence and type of sedation side effects.

Treatment outcomes, including adverse events were evaluated for each lesion. Additional drugs administration and past medical history were collected

Results 101 ESDs were performed in the period of analysis. In 5 out of 101 procedures (4.9 %) was registered a discontinuation due to poor response to MCI sedation and was requested a conversion to anaesthesiologist assisted deep sedation to complete the procedure. N. 96 cases were considered for safety analysis (M/F 49/47, median age 70yrs [IQR 14.25]; mean BMI 25.2 [SD: 2.92]). Lesions had a mean size of 37.1mm [range 10-80], being mostly located in the rectum (96.9 %).En bloc rate was 85,4 % , while R0 rate was 92,7 %. The incidence of sedation side effects was 13,5 % (13/96): in 12 patients occurred bradycardia while in 1 patient occurred hypotension. All those side effects were conservatively managed with medical therapy without occurrence of cerebrovascular or cardiac ischemic events. In the univariate analysis, sedation side effect occurrence was associated with additional intraprocedural scopolamine butyl bromide administration and patient history of respiratory disease (p < 0.05). Among early adverse events, in 46 patients occurred intraprocedural bleeding and in 3 patients occurred superficial muscular damage,which were both managed endoscopically.Only one case of perforation was reported, which required surgery. Regarding late adverse events, in 5 patients was reported a late bleeding, which was treated endoscopically with success, whereas in 6 patients occurred post-polypectomy syndrome and in 4 patients occurred urinary retention, both resolved with medical therapy.

Conclusions The use of MCI is a safe and effective sedation option for colorectal ESD procedures, with a low rate of procedure discontinuation.

Conflicts of interest Vincenzo Cennamo, MD: member of the scientific board of Olympus Italia; Consultant for Novità Medicali and Euromedical. All other authors disclosed no financial relationships.

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Striving for Excellence: Quality in Upper GI Endoscopy

27/04/2024, 12:00 – 13:00 **Room 10**

OP274 The Gastroscopy RAte of Cleanliness Evaluation (GRACE) Scale: time to establish a Grading Scale for Upper Gastrointestinal Endoscopy

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DOI 10.1055/s-0044-1782975

Aims To develop and validate a new scale for mucosal visualization of the upper gastrointestinal tract during esophagogastroduodenoscopy (EGD), the Gastroscopy RAte of Cleanliness Evaluation (GRACE), as a quality standard tool through the application of a standardized, reliable, and validated scoring system.

Methods A cross-sectional study was conducted in a multicenter international study. The GRACE scale is based on the evaluation of three different anatomic areas (esophagus, stomach, and duodenum) with 4 different grades of cleanliness (from 0-worst to 3-excellent). A score of 0 to 3 was assigned to each segment and then summed up for a total score ranging from 0 to 9. In the first phase, four expert endoscopists evaluated 60 selected images twice with a two-week interval; in the second phase, the same 60 images were scored twice again with a two-week interval by one expert and one non-expert endoscopist from 27 different Endoscopy Departments Worldwide. For reproducibility assessment and clinical validation, in a third phase, the same mix of experts and non-expert endoscopists performed a real-time application of the scale on consecutive patients undergoing gastroscopy in their own center, and the evaluations were compared with the original experts. Intra-rater reliability was assessed by Fleiss kappa, Inter-rater reliability by Intraclass correlation coefficient (ICC), and perclass agreement by k for individual categories; for these assessments, almost perfect agreement was defined as > 0.80.

Results In the first phase, the intra-rater Fleiss kappa was 0.89 [95 % Confidence Interval (CI) 0.81-0.97], whilst the inter-rater ICC was 0.91 (95 % CI 0.87-0.94) for single measures. In the second phase, 27 centers and 54 endoscopists participated (27 experts, 27 non-experts). The overall intra-rater Fleiss kappa was 0.85 (95 % CI 0.83-0.87): between experts 0.86 (95 % CI 0.83-0.86) and between non-experts 0.88 (95 % CI 0.85-0.91), whilst the inter-rater ICC was 0.92 (95 % CI 0.89-0.94) for single measures. The perclass analysis for scores 0, 1, 2 and 3 were: 1.00, 0.94, 0.87 and 0.93 in the first phase, and 0.97, 0.89, 0.85 and 0.92 in the second phase, respectively.

In the third phase, 1008 images were evaluated: the inter-rater ICC was 0.86 (95 % CI 0.84-0.87) for single measures.

Conclusions The GRACE scale for esophagogastroduodenoscopy showed almost perfect results in terms of reproducibility, in intra-rater, inter-rater reliability and perclass agreement, and the results were validated in a worldwide clinical setting. The real-time clinical application of this new cleanliness evaluation scale of the upper gastrointestinal tract during EGD could represent a very important tool to standardize the evaluation of mucosal visibility, push endoscopists to obtain excellent visibility and reduce the risk of missing lesions.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP275 Assessment of the impact of gastroscopy quality protocols on the reduction of upper gastrointestinal cancer miss rate

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Aims There is a growing interest in enhancing quality in gastroscopy. However, the assessment of the role of quality measures in the early cancer detection and, subsequently, in the reduction of gastrointestinal cancer miss rate (GCMR) is limited. The aim of our study is to assess the real impact of gastroscopy quality standards on the reduction of GCMR.

Methods In this study, we analysed the last five years of the Upper Gastrointestinal Tumour Registry in our hospital. Cancers that were not described in gastroscopies performed in the previous three years of cancer diagnosis were defined as "missed tumours". We calculated GCMR in this period and we studied different tumour features and gastroscopy quality factors among the missed tumours. The generative AI tool Akkio (Akkio Inc, Boston, MA) and SPSS v.22 were used for statistical analysis.

Results We included 523 patients (mean age 68 years; 67.1 % male) with an upper gastrointestinal cancer diagnosis. The global GCMR calculated was 14.15 % (74 patients: mean age 67 years; 70.2 % male). 63.51 % patients had the previous gastroscopy performed in less than 1 year before the cancer diagnosis. The location where most tumours were missed was the stomach (82.4 %), specifically at the body (24.3 %) followed by antrum (17.5 %). Most gastric cancers were adenocarcinomas while most oesophageal neoplasms were squamous cell cancers. We observed a non-significant GCMR decrease from 2017 (19.2 %) to 2021 (12.1 %) (p = 0.388). In the same period, biopsy taking in the previous gastroscopy increased significantly (50.0 % vs. 83.3 %, p = 0.022). We analysed the biopsy results in these first gastroscopies: "normal" tissue was found in 53.6 % of the biopsies taken, while only 19.6 % of them showed dysplastic or atypical tissue. Premalignant precursor lesions were found in 25 % of the biopsies. As well as the biopsy taking, adherence to quality protocols increased over the 5 years, from 68.4 % to 83.3 % (p = 0.41). [1]

Conclusions

- Adherence to quality protocols in gastroscopy appears to play a significant role in reducing the GCMR. However, we are still missing upper gastrointestinal tumours.
- More than a half of the biopsies taken in the previous gastroscopy were normal tissue. This suggests that optical diagnosis is equally crucial in improving the quality of gastroscopy, as it guides us when taking biopsies, thereby enhancing the diagnostic yield of the procedure.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP276 Validation of the BEST-J score, a prediction model for delayed bleeding after gastric endoscopic submucosal dissection, in a Western center

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DOI 10.1055/s-0044-1782977

Aims Endoscopic submucosal dissection (ESD) is widely implemented in Asia. BEST J-score is a clinically useful prediction model validated in 2021, based on this population, to stratify the risk of delayed bleeding (DB) after gastric ESD.

Experience from the Western world is still scarce. The aim of our study is to validate BEST-J score in a Western sample.

Methods Retrospective analysis with a prospectively maintained database of all patients undergoing ESD at a Western tertiary center from June 2016 to December 2022.

Gastric ESD performed by a single operator were included in this study. BEST-J score was applied for all procedures, which comprised 10 variables (intake of warfarin, direct oral anticoagulant (DOAC), chronic kidney disease with haemodialysis, intake of P2Y12 receptor antagonist, aspirin, cilostazol, tumour size > 30 mm, lower-third in tumour location, presence of multiple tumours and interruption of each kind of antithrombotic agents). The primary endpoint was to validate BEST-J score accuracy in predicting DB (up to 28 days after ESD).

Results Of 477 ESD performed, a total of 252 ESD met the inclusion criteria; 56.5 % were male, with a mean age of 68 years (SD 8 years). Of this, 30 patients (15.3 %) were under anticoagulant therapy, 19 of them (63.3 %) with DOAC. Antiplatelet agents were taken by 48 patients (19 %). From these, 5 (2.0 %) presented DB following ESD, with a median time to bleeding of 11 days.

According to BEST-J score, bleeding risk was low (0-1 points) in 205 procedures (81,3 %), intermediate (2 points) in 18 (7.1 %), high (3-4 points) in 26 (10.3 %) and very high (≥ 5 points) in 3 (1.2 %).

BEST-J score presented an acceptable accuracy predicting DB in our sample, with an AUC = 0.777 (p = 0.034, CI 95 %, 0.58-0.975). The optimal cut-off value to predict DB was a BEST-J score ≥ 3, which matches the cut-off value for high-risk of bleeding in the original investigation. This value had a sensitivity of 60.0 %, specificity of 88.7 % and a negative predictive value of 99.1 %.

Conclusions The BEST-J score presents an acceptable accuracy for post-ESD bleeding and it is particularly useful in identifying low risk DB patients. Therefore, this model is a good clinical decision-making support tool in the Western population. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP277 Does Helicobacter pylori treatment reduce recurrence of upper gastrointestinal bleeding in patients with atrial fibrillation on antithrombotic drugs?

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DOI 10.1055/s-0044-1782978

Aims Gastrointestinal bleeding (GIB) is a serious and potentially life-threatening complication that frequently occurs in patients taking antithrombotic therapy, including those with chronic diseases such as atrial fibrillation (AF). While previous studies have reported the effect of HP eradication on GIB in participants taking aspirin and non-steroidal anti-inflammatory drugs (NSAIDs), its effect on GIB in AF patients taking anticoagulants is not well established.

The risk of recurrent gastrointestinal bleeding (GIB) in atrial fibrillation (AF) patients on anti-thrombotic after H. pylori (HP) eradication remains poorly defined.

To our knowledge, there has been no randomized controlled trial on this subject, and there is a lack of large-scale cohort studies utilizing insurance claim big data to assess the effectiveness of HP treatment in preventing rebleeding in antithrombotic-related ulcer bleeding. Therefore, there is a significant unmet need for further investigation into this important clinical issue.

The aim of this study is to assess the impact of HP treatment on the risk of recurrent GIB in AF patients with previous antithrombotic-related GIB, based on nationwide health insurance claim data.

Methods We characterized the incidences of hospitalizations for all recurrent GIB in antithrombotic users according to HP eradication therapy. Based on the nationwide claims and health database, we identified all AF patients newly diagnosed with upper GIB between 2010 and 2017. Patients were divided into three cohorts according to the anti-thrombotic use after AF diagnosis: warfarin, NOAC, and anti- platelets. The primary outcome was incident rebleeding after index GIB during follow-up.

Results Among 250,666 AF patients first receiving NOACs or warfarin or anti-platelet from January 1, 2013 to December 31, 2018 in the overall cohort. Among a total of 2670 AF patients with upper GIB, the warfarin group (94 pairs), NOAC group (98 pairs), and anti-platelet group (218 pairs) were compared for recurrent GIB after propensity matching for the treatment of HP. During 5 years follow-up, HP treatment was closely related to recurrent GIB with marginal trend toward significance in warfarin group (hazard ratio [HR] 0.77, 95 % CI 0.51- 1.18) and anti-platelet group (HR 0.89, 95 % CI 0.72-1.09). Whereas, HP treatments were independently related with a lower risk of all-cause mortality in the warfarin group (HR 0.28, 95 % CI 0.09-0.87) and anti-platelet group (HR 0.79, 95 % CI 0.67-0.93). [1–3]

Conclusions AF patients with GIB were not significantly associated with a lower risk for recurrent GIB after HP treatment, irrespective of the kinds of anti-thrombotic taken. However, for AF patients on anti-platelet, HP treatment reduced the risk of all-cause mortality during 5-years follow-up.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP278 Usefulness of endoscopic hand suturing for bleeding prevention following gastric endoscopic submucosal dissection: a multicenter phase II study

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Aims Postoperative bleeding accounts for approximately 5 % in gastric endoscopic submucosal dissection (ESD) and sometimes leads to a fatal condition. Particularly, patients with continuous administration of antithrombotic agents (ATAs) have a high risk of bleeding. We developed endoscopic hand suturing (EHS), which provides a reliable closure of the mucosal defect following ESD by continuous intraluminal suturing of the tissue using a dedicated flexible needle

holder and a commercially available absorbable barbed suture. In this multicenter phase II study, we investigated the effectiveness of EHS for bleeding prevention following gastric ESD in patients at a high risk of delayed bleeding.

Methods We prospectively enrolled patients who had a single neoplasm, measuring 2 cm or less, for the indication of gastric ESD and were recommended to continuously take ATAs perioperatively considering a risk–benefit balance in postoperative bleeding and thromboembolism. Immediately following lesion removal, EHS was applied to the mucosal defect. Soft diet was resumed at least on postoperative day (POD) 1, a scheduled endoscopy was performed to monitor the suture site on POD 3, and the patients were discharged on POD 4 onward. A recommended dose of proton-pump inhibitors or potassium-competitive acid blockers was administered perioperatively. We evaluated the postoperative bleeding rate until 3–4 postoperative weeks as a primary outcome measure and assessed the technical success rate of EHS, closure maintenance rate on POD 3, postoperative subclinical bleeding rate, closure time, and adverse events. We prepared a sample size of 48 patients, considering the postoperative bleeding rate as 10 % and 25 % for the expected and threshold values, respectively.

Results A total of 49 patients were enrolled, and 43 patients were finally registered as the per-protocol set. They were administered ATAs as follows: antiplatelet agents, 28; anticoagulants, 18; single agent, 37; and dual agents, 6. The postoperative bleeding rate was 7 % (3/43 patients; 90 % confidence interval [CI], 2.4 %–16.7 %), wherein the upper limit of CI was below the threshold value (25 %), and the postoperative bleeding rate was below the expected value (10 %). The technical success rate of EHS, closure maintenance rate on POD 3, and postoperative subclinical bleeding rate were 100 %, 83 %, and 2 %, respectively. The mean closure time was 48 min and the mean of six stitches was required per lesion. In one case, an EHS-related adverse event occurred, wherein the scheduled endoscopy on POD 3 revealed subclinical bleeding from the intentionally created mucosal damage to accurately grasp the needle during the EHS procedure. [1–3]

Conclusions The results demonstrated that EHS was useful for preventing postoperative bleeding in gastric ESD for patients with continuous ATA administration. To demonstrate the preventability of this technique for postoperative bleeding in high-risk patients, further confirmatory studies are needed (UMIN000038140).

Conflicts of interest We received dedicated flexible needle holders and scissors forceps used in this study from Olympus Corporation.

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OP279 Delayed bleeding post-endoscopic ampullectomy for ampullary adenomas: Incidence, risk factors and management

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Aims The duodenal tumors of major papilla account 10 % of all peri-ampullary lesions [1]. Endoscopic ampullectomy became the treatment modality for selected cases. Despite the significantly lower rate of adverse events, bleeding occurs in up to 25 % of patients [2]. The rate of bleeding may be even higher, depending on periampullary lesion size and type. Factors related to delayed bleeding are poorly understood. Our study aimed to determine predicting factors for delayed post-ampullectomy bleeding.

Methods We conducted a single-center retrospective study including procedures performed between January 2011 and September 2023. All patients who underwent an endoscopic papillectomy were analyzed. The primary endpoint was the incidence of delayed bleeding, which was defined as a post-procedural bleeding that necessitated either a blood transfusion, ICU admission or re-intervention. Secondary outcomes included risk factors for delayed bleeding, time to delayed bleed, management, and other adverse events.

Results 113 patients underwent endoscopic papillectomy [mean age 66.2 ± 12.2 years; male gender 51 (45.1 %)]. Mean lesion size was 27.0 ± 14.3 mm and mean procedure duration was 62.8 ± 35.6 minutes.

There were 25 cases of delayed bleeding (22.1 %). Of these, 20 (80 %) required repeat endoscopic intervention, 6 (24 %) required blood transfusions and 3 (12 %) were managed conservatively. Delayed bleeding occurred at a median of 24 hours (IQR: 6-24; Figure 1). Only 4/25 (16 %) of the delayed bleeds occurred after 24 hours. The average length of hospital was longer in those experiencing a delayed bleed (8.6 ± 4.8 vs 4.8 ± 2.4 days, P < 0.001).

Delayed bleeding was greater in those with hypertension (OR 2.6, 95 % CI 1.0-6.6, P = 0.045), an INR ≥ 1.2 without blood thinners (OR 11.1, 95 % CI 2.6-47.2, P = 0.001) or histology revealing HGD/cancer as compared with LGD (OR 3.0, 95 % CI 1.08-8.11, P = 0.035). A multivariate logistic regression analysis revealed that only an INR ≥ 1.2 predicted delayed bleeding, with an OR of 13.0 (95 % CI 2.5-68.0, P = 0.002), after adjusting for the presence of hypertension and histopathology. There were no other predictors, including age, gender, lesion size, background anti-platelet/coagulation use, or en bloc resection.

By univariate Cox proportional hazards regression, time to delayed bleeding was 5.6 times faster in those with an INR ≥ 1.2 (HR 5.6, 95 % CI: 2.0-15.5, P = 0.001; Figure 2). No other factors were related to time to delayed bleeding. Other adverse events included perforation (n = 7, 6.3 %) and pancreatitis (n = 19, 16.8 %). There were no deaths.

Conclusions In conclusion, history of hypertension, elevated INR above 1.2 and histology revealing HGD/cancer are potentially related to delayed post-ampullectomy bleeding. Moreover, time to delayed bleeding is 5.6 times faster in those with an INR ≥ 1.2 only. These factors might be taken into consideration when strategizing a reduction in post-ampullectomy bleeding.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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Colorectal cancer: Beyond endosopy

27/04/2024, 12:00 – 13:00 **Room 11**

OP286 Risk of Occult Lymph Node Metastasis in pT2 Rectal Cancer: a Nationwide Retrospective Analysis

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Aims Advances in transanal surgical and endoscopic resection techniques have increased the use of local excision (LE) as a diagnostic and potentially organ-sparing approach for early-stage (cT1-2N0) rectal cancer (RC). For pT1 RC, total mesorectal excision (TME) can be omitted if histological risk factors for lymph node metastasis (LNM) and local recurrence are absent, regardless of submucosal invasion depth, as defined by the current Dutch CRC guideline.

However, for pT2 RC, completion TME is recommended, irrespective of the presence of histological risk factors and despite the potentially varying associated risks for LNM. At present, little is known about the incidence and predictive value of histological risk factors in pT2 RC. This study aims to describe the association between histological risk factors and LNM rate in pT2 RC.

Methods All consecutive patients with pT2 RC from two large Dutch multicentre retrospective registries who were node-negative on preoperative imaging (cN0) and underwent surgery without neoadjuvant therapy between 2012 and 2020 were analysed. Treatment options included TME and LE followed by completion TME or active MRI surveillance for ≥ 24 months, which was considered evidence of node-negative disease. The primary outcome was the rate of LNM in pT2 RC without the presence of histological risk factors available in the dataset (lymphovascular invasion (LVI) and poor differentiation (PD)). Secondary outcomes were the predictive value of PD and LVI in univariable and multivariable analyses corrected for age, sex and tumour distance from the anal verge.

Results In total, 339 patients with pT2 RC met the inclusion criteria (mean age 69 years, 64 % male). The majority – 262 patients (77.3 %) – underwent primary TME, while LE was performed in 77 (22.7 %). Of these, 58 (75.3 %) patients received completion TME, with the remainder undergoing active surveillance. The overall LNM rate in our cohort was 15.6 % (53/339). In the 271 patients (79.9 %) without both LVI and PD, the LNM rate was reduced to 12.5 % (34/271). The presence of either LVI or PD alone resulted in LNM rates of 27.6 % and 14.3 %, respectively. When both LVI and PD were present, LNM occurred in 2 out of 3 cases. In our study, LVI was found to be the only independent predictor of LNM according to univariable and multivariable analyses (p = 0.002; adjusted odds ratio 2.8, 95 % CI 1.4-5.5).

Conclusions In this large retrospective cohort, the absence of LVI and PD was associated with a relatively low risk of LNM in patients with pT2 RC. This suggests the presence of a potential low-risk group of pT2 RC patients who may qualify for omission of completion TME. However, to accurately identify this group, a more detailed histological risk assessment including a wider range of potential histological risk factors such as tumour budding is warranted.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP287 Prognosis of low-risk pT1 CRC locally resected en bloc and in piecemeal – Comparative study with two international cohorts: Epit1 Consortium and Dutch T1 group

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Aims To compare en bloc and piecemeal resected low-risk pT1CRC in terms of overall survival (OS) and metastasis free survival (MFS).

Methods Low risk pT1 CRCs (no poor differentiation and no lymphovascular invasion) either piecemeal or en bloc resected were selected from two combined European multicenter cohorts (EpiT1 Consortium and Dutch pT1CRC study group). The exclusion criteria were primary surgical treatment, incomplete local resection, lack of information on type of resection , lack of follow-up of at least 2 years. The outcomes studied were metastasis free survival(MFS) and overal survival(OS). Cox regression analysis was performed adjusting for rectal location, size, and pedunculated morphology.

Results 3918/7043 patients with a pT1 CRC met the inclusion criteria: 822 (21 %) resected in piecemeal and 3096 (79 %) resected en bloc (Table 1). After local treatment, 46.6 % in the piecemeal group received completion oncological surgery and 26.6 % in the en bloc group. Adjusted 5-yrs MFS was lower for the piecemeal resected pT1 CRCs (94.6 % (95 % CI) vs. en bloc 97.4 % (95 % CI);p = 0.001). Within the piecemeal resected pT1CRC group, the adjusted 5-yrs MFS did not differ between the group which underwent completion surgery versus the group who received only surveillance. (93.7 %(95 % CI) vs 96.3 % (95 % CI), p = 0.08). Patients with a pT1 CRC resected in piecemeal followed by secondary surgery showed more endoluminal recurrence than en bloc resected pT1 CRCs followed by surveillance (10.8 % VS 1.6 %, p < 0.00), higher proportion of distant metastasis (13/381 (3.4 %) vs 14/730 (1.9 %), p = 0.04) despite a similar 5-yrs MFS (96.3 % vs 97.8 %, p = 0.08).

Conclusions Even after secondary surgery Piecemeal resected pT1 CRC have a worse outcome than en bloc resected pT1 CRCs with surveillance . This is probably due to suboptimal histological risk stratification in a fragmented and cauterized specimen. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP288 Risk of lymph node metastasis and local or distant recurrence after endoscopic resection of T1 colorectal adenocarcinoma with submucosal invasion > 1000 mm and no other histological pejorative factors

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Aims Endoscopic resections of T1 colorectal adenocarcinoma are considered curative when several histological criteria are met: the resection must be R0, with no lympho-vascular emboli, no significant budding, no poorly differentiated component, and the depth of invasion in the submucosa must not exceed 1000µm [1, 2]. However, these different risk criteria do not have the same impact on the lymph node prognosis of these lesions. Some recent data show that the histological criterion of submucosal invasion depth < 1000µm may not be an independent risk criterion for lymph node metastasis [3], and the risk associated with it seems low [4]. The aim of this study was to evaluate the risk of lymph node metastasis or recurrence in cases of endoscopic resection with or without complementary surgery of T1 colorectal cancer with submucosal invasion of more than 1000 µm and without any other pejorative histological factors.

Methods We conducted a multicenter retrospective study in 24 European centers on 219 patients who had undergone endoscopic resection of T1 CRC with submucosa invasion > 1000µm without other pejorative criteria between December 2009 and December 2022.

Results The study included 219 patients, of whom 124 underwent surgery after endoscopic resection and 95 were monitored after endoscopic resection. Among the patients who underwent surgery, the rate of lymph node metastasis on surgical specimen was 12.9 % (95 % CI: 7.7 %; 20 %), i.e. 16 patients out

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of 124. None of the patient with lymph node metastasis had invasion below a threshold of 1800µm. Lesions with submucosal invasion ≥ 2000µm were significantly associated with lymph node metastases (OR 3.6 95 % CI 1.1; 13.7, p = 0.04). Colonic location was a risk factor for LNM in this cohort with an OR of 3.1 (95 % CI: 1.1; 16.8, p = 0.04)

Among patients who were not operated on after endoscopic resection, 55 were assessable for recurrence with a minimum of 3 years of follow-up. In this population, we observed a recurrence rate of 3.6 % (95 % CI: 0.44 %; 12.31 %), i.e. two patients out of 55. In both groups, submucosal invasion > 2000µm was associated with both lymph node invasion and recurrence (OR 3.6, 95 % CI: 2.3; 5.8 , p = 0.004).

Conclusions In this retrospective cohort of colorectal lesions with submucosal invasion > 1000µm, the submucosal invasion criterion still appears to be an important indicator for considering salvage surgery after endoscopic resection of T1 CRC. However, the 1000µm threshold may be considered too restrictive for predicting the risk of lymph node metastases, and the 2000µm threshold seems to be more relevant when it is the only risk criterion present on the endoscopic resection specimen.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP289 Endorectal endoscopic ultrasound for the locoregional staging of rectal mucosal lesions: retrospective multicenter analysis

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Aims Colorectal cancer (CRC) is a common and growing disease and an accurate preoperative staging is essential to choose the most appropriate treatment. There is still debate on the role of transrectal endoscopic ultrasound (TREUS) in locoregional staging. The aim of this study is to establish its role in selecting the most suitable treatment.

Methods A retrospective multicenter study was carried out involving all patients (pts) who underwent TREUS between 2017 and 2022 in the Endoscopy Unit of AOU Città della Salute e della Scienza of Turin and of AOU Maggiore della Carità of Novara for the locoregional staging of mucosal rectal lesions (mRL). Data were collected from an electronic database and expressed as median and interquartile range [IQR] or number and percentage. The primary outcome was to assess the ability of TREUS to differentiate early stages (T0-T1) from advanced stages (T2-T3) which benefit from local excision (endoscopic submucosal dissection ESD or transanal endoscopic microsurgery TEM) and surgical resection, respectively. The diagnostic accuracy of TREUS and magnetic resonance (MR) in the subset of pts that underwent both diagnostic techniques. The surgical pathology stage of resected mRL was the reference standard.

Results 218 pts underwent TREUS in the study time; 122 were excluded: 47 because of other indication than mRL, 3 for inadequate bowel cleansing,16 for advanced adenocarcinoma and severe comorbidity, 24 because of the TREUS was performed after neoadjuvant treatment, 11 because of the time between TREUS and treatment was more than 3 months, 21 for missing data. 96 patients were included, mostly males (63 pz, 65,6 %) with a median age of 70,5 years [IQR 61-79,3]; macroscopically mRL were mostly exophytic (58 pz, 60,4 %) or flat (29pz, 30,3 % %), with a median size of 4 cm [IQR 2,7-5] and a median distance from anal verge of 8 cm [IQR 5-10]; 22 pts underwent both TREUS and MR for locoregional staging of mRLs. Regarding treatment, 23 pts (24 %) were treated with ESD, 58 pts (60,4 %) with TEM, and 15 pts (15,6 %) with surgery; 4 pts (4,2 %) needed a second treatment since the failure of the first one. The final stage, assessed on surgical pathology was T0 in 71 pts (74,2 %), T1 in 15 pts (15,6 %), T2 in 5 pts (5,1 %), and T3 in pts (5,1 %). The overall diagnostic accuracy of TREUS was 89,6 %, with 7 mRL (7,3 %) over-staged and 3 mRL (3,1 %) under-staged. In the subset of pts that underwent both MR and TREUS, the diagnostic accuracy of TREUS in differentiating early from advanced stages was 72,7 %, significantly higher compared to MR (45,5 %, p value = 0.12). [1–4]

Conclusions TREUS is a reliable staging method for early mRL. The precise evaluation of the rectal wall involvement can be challenging, nonetheless, the clinical impact of TREUS is favorable since it allows to discriminate early stages that benefit from effective and minimally invasive local treatments.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP290 Oncologic efficacy of ESD in Early Colorectal Adenocarcinoma

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Aims Endoscopic submucosal dissection (ESD) can be established as a first-line treatment for Early Colorectal Adenocarcinoma (ECRAC). However, the presence of histological high-risk factors (HHRF) can limit its curative efficacy and lead to perform complementary treatments.

The latest evidence suggests that deep submucosal invasion can no longer be considered as an unfavourable factor. Additionally, recent guidelines have questioned the conventional criterion of a distance ≥ 1mm to determine a free vertical margin (VM). An expanded set of curation criteria could be applied, dismissing deep submucosal invasion and identifying an affected VM only when adenocarcinoma is present at the deep margin of the resection.

Aims: Primary: Evaluate the oncologic efficacy of ESD for ECRAC according to current clinical guidelines. Secondary: 1. Analyze HHRF and their association with the risk of lymph node involvement in surgical specimens, when available. 2. Analyze the potential reduction in surgical intervention by applying an expanded curation criteria.

Methods Analysis of the prospective registry of colorectal ESD performed in 3 centers (January 2012 to May 2023). The correlation between HHRF and lymph node involvement in surgical specimens is examined using univariate and multivariate binary regression.

Results Of 672 colorectal ESD cases, 83 (12.4 %) were diagnosed as ECRAC cases (Table 1). According to current guidelines, histological curative resection rate among these 83 cases was only 21.3 %. Surgery was recommended for 50 cases that were not curative due to one or more HHRF, and ultimately, 32 underwent surgery. No residual tumor was identified in any post-ESD surgical specimens. Lymph node involvement was observed in 4 cases (12.5 %) all of which presented > 1 HHRF. There was one death attributed to surgical complications (3.1 %). Only lymphovascular invasion showed a statistically significant association with lymph node involvement (OR 10.4) in the univariate analysis. Among the non-curative ESD cases, 5 (8.5 %) were classified as VM-positive, despite being tumor-free, due to a margin-to-carcinoma distance of less than 1 mm, while 19 (32.2 %) were attributed to > 1000 µm submucosal invasion. Considering expanded curation criteria (G1-2, LV-, absent or low tumor budding and VM without carcinoma regardless of deep submucosal invasion), the curative resection rate would have increased to 40 %, potentially saving 12 surgeries (20 %).

Conclusions The current criteria for considering endoscopic resection as curative in ECRAC are very strict and may result in unnecessary surgeries.

The low rate of lymph node involvement suggests that the anticipated benefits may not outweigh the morbidity associated with surgery.

Larger studies are necessary to evaluate curative criteria following endoscopic resection of ECRAC.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP291 Diagnostic accuracy for predicting deep submucosal invasion: white light endoscopy vs invasive pattern based on chromoendoscopy

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Aims To determine whether assessment of the invasive pattern based on virtual magnifying or dual focus chromoendoscopy combined with crystal violet chromoendoscopy in selected cases (M/D-CE) is significantly more sensitive for predicting deep submucosal invasion than the assessment based on white light imaging (WLI).

Methods Observational, prospective and multicenter study of diagnostic accuracy comparing M/D-CE and WLI for predicting deep submucosal invasion in colorectal polyps. Non-pedunculated type 0 lesions in Paris classification larger than 10 mm were included. Lesions were first assessed with WLI and then with M/D-CE. The gold standard was the histology. Diagnostic accuracy parametres were shown in percentages and 95 % confidence intervals (95 % CI).

Results Nine endoscopists from 8 centres included 465 lesions in the study. The prevalence of deep submucosal invasion was 9.2 %. The use of M/D-CE showed a non-significant increase in Se for detecting deep submucosal invasion when was compared to WLI: 65.1 % (95 % CI 49.1-79) vs. 55.8 % (95 % CI 39.9-70.9). Sp, PPV, NPV and ROC area of M/D-CE was 92.4 (95 % CI 89.5-94.8), 46.7 (33.7-60), 96.3 (95 % CI 94-97.9), 0.79 (0.71-0.86). Sp, PPV, NPV and ROC area of WLI was 95.3 (95 % CI 92.8-97.1), 54.5 (95 % CI 38.8-69.6), 95.5 % (95 % CI 93-97.3) and 0.76 (0.68-0. 83). [1–2]

Conclusions M/D-CE did not improve sensitivity for predicting deep sm invasion when was compared to WLI.

Conflicts of interest Ignasi Puig received grants/research supports from Olympus, consultancy fees from Fujifilm and has participated in a sponsored speaker´s bureau from Fujifilm. Marina Pellisé received grants/research supports from Fujifilm, consultancy fees from Boston Scientific and has participated in a sponsored speaker´s bureau from Olympus and Fujifilm. Adolfo Parra received consultancy fees from Lumendi, 3D Matrix, CREO and Interscope. Alberto Herreros de Tejada received grants/research supports from Norgine, consultancy fees from Boston Scientific and has participated in a sponsored speaker´s bureau from Olympus, Medtronic, Fujifilm, Boston Scientific, Norgine and CREO-Medical. Enrique Rodríguez received consultancy fees from Olympus, Apollo Endosurgery and Norgine. Hugo Uchima received consultancy fees from Lumendi, ERBE and Olympus. Marco Bustamante received consultancy fees from Medtronic. Akiko Ono, João da Costa, José Carlos Marín and Marina Solano declare that they have no conflicts of interest.

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Recent developments in the management of bile leaks and strictures

27/04/2024, 12:00 – 13:00 **Room 8**

OP280 Endoscopic management of biliary leaks following pancreaticoduodenectomy: a single-center experience

Authors E. Palmeri[1], L. Dioscoridi[1], M. Capasso[1], A. Palermo[1], M. Bravo[1], G. Bonato[1], M. Cintolo[1], F. Pugliese[1], E. Forti[1], M. Mutignani[1]

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DOI 10.1055/s-0044-1782987

Aims Biliary leaks post-pancreaticoduodenectomy (PD) are challenging complications associated with increased morbidity and mortality. Surgical repair is often hindered by patient condition and delayed intervention, prompting exploration of alternative approaches. While percutaneous methods dominate current practice, literature on endoscopic management is limited. This study presents a retrospective analysis of endoscopic treatment outcomes for biliary leaks after PD.

Methods All consecutive patients affected by biliary leaks post-PD were endoscopically treated between January 2012 and December 2022. Procedures were performed by a 3.8 working channel pediatric colonoscope using one or more biliary and enteral fully-covered self-expandable metal stents (fc-SEMS) with tailored approach mainly based on the presence of biliary dehiscence only, combined biliary and pancreatic leaks or bilio-digestive anastomotic leak associated with jejunal wall necrosis. Primary outcomes were technical success (successful stent placement) and clinical success (removal of surgical drain after absence of residual intrabdominal collection detected by CT scan). Secondary outcomes evaluated the impact of late intervention (> 7 days from complication onset) on treatment outcomes.

Results Of the 27 patients treated during study period, 20 (74 %) presented with pure biliary leaks, and 7 (26 %) with combined biliary and pancreatic leaks. The mean number of procedures per patient was 2.4, with an average interval

Endoscopy 2024; 56: S1–S503

of 11.2 days between complication onset and the initial procedure. All patients underwent successful endoscopic treatment (100 % technical success), achieving a clinical success rate of 92 %. The median treatment duration was 84.5 days. Late intervention correlated with a significantly prolonged treatment period (60 vs. 101 days, $p < 0.01$), but did not impact clinical or technical success rates. Complications were limited, with 14 % experiencing self-limited gastrointestinal bleeding. No statistically significant differences were observed in outcomes based on procedural timing. [1–3]

Conclusions Endoscopic management emerged as a viable and effective approach for biliary leaks post-PD in tertiary referral centers. Early intervention was associated with shorter treatment duration, highlighting the importance of prompt endoscopic approach in these cases. The study underscores the need for further exploration of endoscopic techniques to improve the general outcomes after-PD.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP281V Acute post-liver transplant (LT) leakage controlled by EUS-guided choledochoduodenostomy (EUS-CDS) repaired by cholangioscopy-guided stenting

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DOI 10.1055/s-0044-1782988

Abstract Text Severe leakage post-LT not amenable to ERCP requires surgical repair. Bile leakage despite post-LT relaparotomy and repair. ERCP: Failed access across anastomotic dehiscence to donor duct, despite cholangioscopy. A 5-mm extrahepatic donor bile duct was imaged under EUS from the bulb. 22G-needle puncture cholangiography, cystotome dilation over 0.021-wire for EUS-CDS with FSEMS, and pigtail stent for anchorage. Bile output dropped. At 2-weeks, EUS-CDS stents were removed. Transpapillary cholangioscopy-directed FSEMS placement across the surgical biliary anastomosis. 6-month-revision ERCP: healed bile duct. Patient remains well 2-months after stent removal. EUS-CDS early post-LT allowed leakage control, subsequently facilitating cholangioscopy-guided guidewire access to donor bile duct, which resulted in bile duct reconnection and eventually healing [1–2].

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/8bfcb603-90c5-4f1d-8779-0a4a515bf623/Uploads/13821_TOH-ESGE_days.mp4

Conflicts of interest Manuel Perez-Miranda, Consultant and Speaker: Boston-Scientific, MITech, Olympus, Medtronic, Lumendi.

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OP282 Adherence to the ESGE Guidelines on biliary stenting in malignant distal strictures: results from a prospective cohort study (PROTESIED) in Italy

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DOI 10.1055/s-0044-1782989

Aims Distal Malignant Biliary Strictures (dMBS) are a common indication for endoscopic retrograde cholangiopancreatography (ERCP). In 2017 ESGE published guidelines on endoscopic biliary stenting, with a chapter focusing on endoscopic stenting in dMBS. The aim of this study is to evaluate the adherence of Italian endoscopic centers to the ESGE guidelines on dMBS stenting.

Methods This is a prospective cohort observational, multicenter, study promoted from the Italian Society of Digestive Endoscopy (SIED). All consecutive patients with dMBS were included in the registry, as part of the normal care pathway. Clinical and technical data were recorded. A clinical follow-up at 7, 30 days, and then every 3 months was obtained to verify the occurrence of cholangitis, the need for re-interventions, and the oncological evolution. Follow-up had a maximum period of 1 year and was stopped at the time of the first episode of cholangitis, upon surgery or death. The adherence to the 8 ESGE recommendation was defined as “full-”, “intermediate-”, and “poor-” ($> 85\,\%$, $\geq 65\,\%$ – $\leq 85\,\%$, and $< 65\,\%$) according to the guidelines, respectively.

Results Seventeen Italian endoscopy centers adhered to the study. Between January 2020 and January 2022, 827 patients were included (51.7 % male, median age 71 years). Pancreatic head cancer was the most common etiology (79.3 %). ERCP was successfull in 97 % of cases. Self-Expandable Metal Stent (SEMS) was the most common biliary stent used (77.6 %) (Fully Covered 63.1 %; Partially Covered 9.6 %; Uncovered 27.3 %). The indications for ERCP were palliation, neoadjuvant chemotherapy, and preoperative drainage in 55.8 %, 23 %, and 21.2 % of cases, respectively. Full-adherence to the guidelines was reported for post-ERCP acute pancreatitis prophylaxis (94.1 % received 100 mg rectal indomethacin), for retreatments (75 patients had a second ERCP for stent dysfunction: 86.6 % received a new SEMS or a plastic stent within the SEMS), and for preoperative biliary drainage indication (12 % of asymptomatic jaundice

patients underwent surgery within 7 days from ERCP). Intermediate-adherence to guidelines was reported for the type of stent used in palliative drainage (85 % received SEMS and 15 % plastic stents). Poor-adherence to guidelines was reported for the type of stent used in preoperative drainage (42 % plastic stents), for the availability of pathological diagnosis in case of U-SEMS placement (45 % of U-SEMS were placed without a pathological confirmed diagnosis), for the antibiotic prophylaxis (70.6 %, while guidelines recommend against routine antibiotic prophylaxis), and for sphincterotomy performance (performed in 87.9 %, while guidelines recommend against routine sphincterotomy). [1]

Conclusions The adherence to ESGE guidelines needs to be improved in specific topics, such as the excessive use of plastic stents, the routine performance of sphincterotomy and the use of U-SEMS without pathological diagnosis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP283 Evolution of endoscopic management for anastomotic biliary strictures after liver transplantation: a two-decade retrospective study

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DOI 10.1055/s-0044-1782990

Aims Biliary adverse events manifest in approximately 25 % of liver transplant recipients. Among these, anastomotic biliary strictures (ABS) are the most prevalent, occurring in approximately 6 %-12 % of cases and can be successfully managed endoscopically. Our study aims to present the evolution of method and long-term results of placing multiple plastic stents to treat ABS after orthotopic liver transplantation (OLT).

Methods All consecutive patients who underwent endoscopic retrograde cholangiopancreatography (ERCP) for liver transplantation-related biliary complications at our Endoscopy Unit between July 1994 and September 2022 were retrospectively identified. The analysis focused only on the patients diagnosed with ABS undergoing dilatation by a progressively increasing number of plastic stents. Follow-up after stent removal was obtained by office visit, telephone contact with the patient or referring physician and extended to this year or until patient succumbed.

Results Two hundred and ninety-five patients referred by 4 Liver Transplant Units underwent ERCP in need of endoscopic treatment for biliary complications after liver transplantation. However only 151 represented our intention-to-treat group with ABS. Out of these, 21 patients were excluded because of split liver transplantation, the use of metallic stents or incomplete endoscopic treatment. The mean age of the remaining 130 patients was 56 ± 9 years old and included 107 males and 23 females. We divided these patients in 2 groups according to similar timeframes, 28 ABS patients being treated before 2008 and 102 patients after 2008. In the first group the median number of stents was 4 (range 2-7), with a median of 3 ERCPs (range 2-5) per patient. Patients treated after 2008 received a median number of 6 stents (range 3-9) (p = .000, Mann-Whitney U), with a median of 4 ERCPs (range 3-7) (p = .002, Mann-Whitney U). The mean treatment duration was 15.3 ± 16.7 months in the first group and 14 ± 10 months in the second. Stricture recurrence was noted in 14.2 % of patients treated before 2008 versus 4.9 % after 2008. Nevertheless, the follow-up period was 10.6 ± 7.5 years for the first group and 4.7 ± 4 years in the second group.

Conclusions The endoscopic treatment with multiple plastic stents proved to be effective for the majority of patients with ABS after OLT. In the last decade, the endoscopists shifted towards a more aggressive treatment strategy, with an increased number of stents and a reduced period between stent replacement procedures. This intensive approach seems also to underline a lower stricture recurrence rate however a longer follow-up period needs to be considered for the patients treated after 2008.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP284 Meta-analysis of diagnostic performance of fluorescence in situ hybridization (FISH) for biliary strictures

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Aims Standard brush cytology has poor sensitivity for detecting malignancy in biliary strictures. Fluorescence in situ hybridization (FISH) has been reported as a useful adjunctive test in evaluation of biliary strictures. However, the diagnostic performance and definitions of a positive FISH result vary across different studies. This meta-analysis aimed to define the diagnostic performance of FISH in evaluation of biliary strictures.

Methods A systematic search of Ovid MEDLINE, EMBASE, Cochrane and Scopus databases was conducted by an expert librarian util July 2023. Studies reporting the diagnostic performance of FISH in adult patients (> 18y age) with biliary strictures were included. Sensitivity analysis of studies using only (1) polysomy (> 2 copies of ≥ 2 probes) and (2) tetra/trisomy as criteria for positive FISH test were also performed. Bivariate random-effects model was used to summarize the results from individual studies while keeping the two-dimensionality of the data. Receiver operating characteristic curve (ROC) were constructed using a hierarchical summary. Results were reported as sensitivity (Sn), specificity (Sp), positive and negative likelihood ratio (LR). All statistical analyses were performed using the R-software.

Results A total of 16 studies with 1949 FISH specimens were included. Malignancy was identified in 1014 (52.1 %) cases. Most studies used the Urovysion(Abbott Molecular) probe set except one study that used a pancreatobiliary FISH probe set. A positive FISH (as defined by the study authors) had a pooled Sn of 55.9 % (95 % confidence interval [CI], 48.1-63.5 %, I2 = 23 %) and Sp of 88.1 % (95 % CI, 78.4-93.8 %, I2 = 23 %). Negative FISH had a small magnitude of change (negative LR = 0.5, 95 % CI, 0.4-0.6) whereas a positive FISH resulted in a moderate magnitude of change in probability of diagnosis (positive LR = 4.9, 95 % CI = 2.7-8.6) after testing. Pooled false positive rate was 11.9 % (6.2-21.6 %, I2 = 23 %).

On sensitivity analysis of studies using FISH polysomy as the only criterion for a positive FISH test (n = 11), Sn was maintained at 51.3 % (95 % CI 46.1-56.5 %, I2 = 16 %) while Sp increased to 93.1 % (95 % CI 89.6-95.4 %, I2 = 16 %). In those studies that considered tetrasomy/trisomy in addition to polysomy as a positive FISH test (n = 5), FISH Sn increased significantly (67.6 %, 95 % CI 59.4 %-74.8 %) however, the Sp dropped significantly to 71.2 % (95 % CI 53.3-84.3 %).

Conclusions Overall FISH testing for detecting malignancy in biliary strictures has a > 50 % Sn however < 90 % Sp but is impacted by the definition of a positive FISH test. The inclusion of results other than FISH polysomy as a positive test may increase sensitivity of FISH, but significantly increases false positive rates. Further studies to standardize FISH reporting and develop novel testing strategies to improve diagnostic performance characteristics are needed.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP285 Off-label use of lumen apposing metal stents for treatment of short benign biliary strictures: a single tertiary center experience

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DOI 10.1055/s-0044-1782992

Aims Endoscopic stenting is considered the mainstay of biliary treatment for benign biliary strictures; temporary insertion of multiple plastic stents or of a fully covered self-expandable metal stent (FC-SEMS) are the preferred methods due to their favorable results. However, there is a not-negligible rate of stricture recurrence and spontaneous stent migration, the latter being a leading cause of treatment failure. Lumen-apposing metal stents (LAMS), developed for transluminal drainages, have a unique design with short length, large diameter and wide flanges which make them less prone to migration. LAMS have recently been proposed as a novel modality for treating short benign gastrointestinal strictures. Aim of our study was to describe the intraluminal use of LAMS to treat short benign biliary strictures.

Methods This was a retrospective, single-arm, single Centre study. All consecutive patients who underwent retrograde LAMS placement for benign biliary strictures, from October 2016 to July 2022, were included. Clinical data, including stricture etiology, previous upper-GI or hepatobiliary surgery, previous treatments for biliary stricture and type of LAMS used were collected from medical records. Primary outcomes were evaluation of technical success, as performance of effective endoscopic treatment, and stricture resolution; secondary outcomes were the retrospective evaluation of follow-up in order to determine long-term success and stricture recurrence.

Results During the study period, seventy patients (35 male, mean age 67, range 27-90 years) underwent retrograde LAMS placement for benign biliary strictures; anastomotic stricture was the most common etiology (n = 34), followed by distal non-anastomotic stricture (n = 22) and post-surgical non-anastomotic stricture (n = 14). LAMS placement was a second-line therapy, after failure of other methods, in 39 patients (55.7 %). A 16-mm LAMS was used in 43 patients and a 12-mm LAMS in 27 (NAGI stent, Taewoong Medical, South Korea). Technical and clinical success were obtained in 100 % and 85.7 % of patients, respectively. Adverse events were 12 (17.1 %), among them, stent migration occurred in 8 (11.4 %) of cases, 3 of which determined failure. We found a higher success rate in patients with post-surgical non-anastomotic stricture then patients with anastomotic stricture (100 % vs 79.4 %, p = 0.03) or with distal non-anastomotic stricture (100 % vs 86.3 %, p = 0.07). Adverse events rate was higher in group who underwent the treatment as a first line then who underwent the treatment as a second line (25.8 % vs 10.2 %, p = 0.04) in light of similar clinical success (83.8 % vs 87.1 %, p = 0.3). During follow-up of patients who obtained clinical success, stricture recurred in 10 patients (12.5 %) within a median of 13.5 months onset (IQR 7-23 months) with no statistical differences between groups. [1–2]

Conclusions LAMS placement could be a safe and effective treatment for short benign biliary strictures in selected patients in which pre-procedure assessment reveals a significant caliber disproportion between stricture and the biliary duct above.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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Early Gastric Cancer: From Detection to Long Term Outcomes

27/04/2024, 13:30 – 14:30 **Room 8**

OP298 Incidence and Characteristics of Endoscopic Gastric Polyps in Patients with Autoimmune Atrophic Gastritis: A Multicentric Retrospective Study

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DOI 10.1055/s-0044-1782993

Aims Gastric polyps arise from the unusual growth of cells in the gastric mucosa. In autoimmune atrophic gastritis (AAG), the gastric mucosa undergoes morphological and functional alterations, as the disease targets parietal cells, leading to a reduction of stomach acid production (hypo-achlorhydria) and to an increase in gastrin (G) levels (hypergastrinemia). These changes, along with the ongoing inflammation, constitute proliferative *stimuli* on the gastric mucosa. The aims of this study is to investigate the incidence and the characteristics of gastric polyps in patients with overt AAG managed at six tertiary referral centers in Italy.

Methods This was a multicentric retrospective study on patients who were diagnosed with AAG from January 2000 to June 2023. We collected demographic information, clinical history, biochemical profile, serological data, and results from endoscopic examinations. Moreover, we recorded the histopathological characteristics of any gastric polyps found at endoscopy.

Results The study included 375 patients with AAG [282 female (73.4 %), median age 66 years (IQR 54-73)]. They were followed up for a median of 4 (IQR 2-7) years during which they underwent a median number of two upper gastrointestinal endoscopies. The median plasma G levels observed were 646 (IQR 316-1150 pg/ml). 189 (50.4 %) patients had at least one incidental polyp. Among these, 152 (80.4 %) patients exhibited 204 non-endocrine lesions: 148 (72.5 %) were inflammatory polyps, 27 (13.2 %) adenomatous polyps, 18 (8.8 %) fundic gland polyps, 10 (4.9 %) adenocarcinomas, and one MALT lymphoma. Additionally, among the overall population with polyps, 77 patients (40.7 %) had gastric neuroendocrine tumors (gNETs), with 40 patients (21.2 %) presenting both gNETs and non-endocrine polyps. The median diameter of the detected polyp was 4 (IQR 2-8) mm. Patients with detected polyps tended to be older than those without (median ages 62 vs. 54.5 years, p = 0.0006). Moreover, levels of plasma G and chromogranin A (CgA) were significantly higher in patients with polyps than in those without (median gastrin 813 pg/ml vs. 582 pg/ml, p = 0.010; CgA 198.0 ng/ml vs. 129 ng/ml, p = 0.001). No differences in terms of OLGA and OLGIM stages or H. pylori status were observed between patients with and without polyps.

Conclusions This retrospective study, conducted across multiple centers, draws attention to the notable occurrence of endoscopic lesions, presenting as polyps, in individuals with AAG. Our data indicate that these lesions encompass both gNETs and various non-endocrine lesions, including inflammatory, adenomatous, and fundic gland polyps. A small proportion of patients also developed gastric adenocarcinoma. These results emphasize the importance of proactive endoscopic monitoring and comprehensive histopathological

evaluation in patients with AAG, to effectively identify and manage these different gastric lesions.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP299 Endoscopy-led risk stratification of gastric intestinal metaplasia – diagnostic accuracy of virtual chromoendoscopy combined with targeted biopsies in patients with premalignant gastric lesions in a low incidence area

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Aims Accurate identification and staging of gastric intestinal metaplasia (GIM) during endoscopy is challenging, in particular in countries with a low incidence of gastric cancer (GC). Random biopsy histopathology, Sydney staging, remains the current gold standard for GIM staging, although random biopsy sampling is poorly reproducible which hinders individual risk prediction and might lead to an underestimation of GIM. Virtual chromoendoscopy (VCE) has shown to be superior to white light endoscopy (WLE) with accuracy for GIM higher than 90 % in countries with a middle-high GC incidence. We evaluated clinical yield of an endoscopy-led risk stratification strategy combining VCE and targeted GIM biopsies in low GC incidence settings.

Methods A prospective study was conducted in two centres, UK and the Netherlands, including patients with a known premalignant gastric lesion (PGL). All participants underwent two separate endoscopies; standard WLE with random biopsies at first endoscopy, and VCE with targeted biopsies performed by an expert endoscopist at second endoscopy at least six months later. During second endoscopy, the endoscopist systematically graded GIM appearance for each gastric location with targeted biopsies of either suspected GIM and/or non-GIM. Diagnostic accuracy was determined by the total number of targeted biopsies confirming GIM presence or absence divided by all biopsies taken. Endoscopists and pathologists were blinded to prior histopathology results. For final comparison of current standard practice to an endoscopy-led approach, diagnostic yield of WLE with random biopsies was compared to diagnostic yield of VCE with targeted biopsies.

Results A total of 120 patients were included (mean age 62.7, SD 13.3, female: 53.3 %). VCE combined with targeted biopsies identified GIM in 109 (90.8 %) patients, 34 % with an OLGIM stage > 2 and 34 % with extensive GIM. The diagnostic accuracy (95 % CI) of VCE for GIM was 80.9 % (77.5 – 83.9). Location-specific accuracy was 77.8 % (73.2 – 82.0) for antrum and 85.4 % (80.4 – 89.6) for body. The area under the curve (AUC) of the ROC curve for identifying extensive GIM was 0.787 (0.702 – 0.867). In 86 patients, the diagnostic yield of WLE with random biopsies was compared to VCE with targeted biopsies. During WLE, GIM was found in 88.4 % and extensive GIM in 36 %, compared to 93 % and 37.2 % for VCE. VCE increased OLGIM stage in 34.9 % (0.249 – 0.459) of patients, with 46.5 % and 18.6 % showing the same or decreased OLGIM stage, respectively.

Conclusions In low GC incidence countries, our study demonstrates that the accuracy of virtual chromoendoscopy for GIM is 80.9 %. VCE combined with targeted biopsies results in a high GIM detection rate, with an AUC 0.787 for identifying extensive GIM. Although the accuracy is lower than diagnostic accuracy reported in middle and high GC incidence countries, our findings support endoscopy-led risk stratification in patients with PGL, even in low incidence countries. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP300 Early gastric cancer in Sweden – a nationwide cohort study on treatment and outcomes

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Aims Endoscopic resection (ER) for early gastric cancer (EGC) is a well-established treatment, however most studies are from Asian countries. Few studies have examined the population-based western results of ER. We aimed to study the treatment method and outcomes for EGC and high-grade dysplasia (HGD) based on data from a population based cancer register.

Methods We conducted a nationwide population-based cohort study. We searched the Swedish National Registry for Esophageal and Gastric Cancer (NREV) for cases of cT1N0M0 gastric cancer and HGD 2005-2022.The primary endpoint was overall survival (OS).

Results In total 381 patients with cT1N0M0/HGD were found. 288 patients were treated with surgery and 93 with ER. Median age was 69.4 years in the surgery group and 71.6 years in the ER group. The groups were comparable in baseline characteristics, except that the ER group had a significantly higher ASA-score ($p = 0.05$). As for the primary endpoint, after excluding patients with pT > 1 there was no statistical difference in OS between the two groups (median 11.9 years for surgery vs 10.0 years for ER, $p = 0.6$). More advanced tumors were found in the surgery group (T0 18.0 %, T1 50.0 %, T2 18.8 %, T3 8.8 %, T4 4.4 % for surgery, vs T0 59.1 %, T1 37.9 %, T2 3.0 % for ER, $p < 0.01$). Tumor free resection margins were more often achieved in the surgery group (93.4 % for surgery vs 75.0 %, for ER $p < 0.01$). The proportion of patients treated with ER increased significantly during the study period ($p < 0.01$).

Conclusions In this population-based study, ER had comparable OS compared to surgery for EGC/HGD. During the study period, the use of ER has been gradually increasing. Factors such as tumor free resection margins indicate that there is room for quality improvement in endoscopic treatment.

Conflicts of interest Henrik Maltzman: Olympus, speaker, no personal fees

OP301 Incidence and risk factors for metachronous gastric lesions after endoscopic submucosal dissection of superficial gastric neoplasms

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Aims With the increasing use of endoscopic submucosal dissection (ESD) of superficial gastric neoplasms (SGN), metachronous gastric lesions (MGL) have become a concern during the follow-up of these patients. We aimed to analyze the incidence and characteristics of MGL after SGN ESD and identify risk factors for its development.

Methods Retrospective cohort-study including adult patients undergoing gastric ESD due to SNG with at least one follow-up upper gastrointestinal endoscopy (UGE). The incidence of MGL was assessed and defined by the presence of a gastric lesion identified after the first follow-up UGE with no relation to the

ESD scar and confirmed by histology (low-grade dysplasia (LGD), high-grade dysplasia (HGD) or adenocarcinoma).

Results A total of 137 patients were included, mostly male (61.3 %) with a mean age of 68 ± 8 years old. Overall, 149 NGS were removed by ESD, the majority located in the antrum (66.4 %), with flat morphology (91.9 %), with a median size of 15 mm (10-40 mm). Histologically, 70 (47.0 %) had LGD, 50 (33.6 %) HGD and 29 (19.5 %) adenocarcinoma, most of these intramucosal (98.0 %). The incidence of MGL was 13.1 % (18/137) after a median follow-up duration of 9 (IQR 13) months. Of these, most were located in the gastric corpus (77.8 %), had flat morphology (83.3 %), a median size of 12 mm (5-35 mm) and LGD (83.3 %). Of the analyzed variables, only active smoking (HR 5.7, 95 % CI 2.157-15.422) and intestinal metaplasia of the corpus (HR 3.5, 95 % CI 1.138-10.697) were independently associated with the development of MGL.

Conclusions The incidence of metachronous gastric lesions after endoscopic submucosal dissection of superficial gastric neoplasms is non negligible and active smoking and intestinal metaplasia of the gastric corpus are independent risk factors for its development. Hence, its identification when approaching these patients may help tailoring the most appropriate post ESD endoscopic follow-up and optimize hospital resources.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP302 Endoscopic Resection and Laparoscopic Lymph Node Dissection for Early Gastric Cancer Beyond Conventional Endoscopic Treatment Indications: A 10-Year Outcome Study

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DOI 10.1055/s-0044-1782997

Aims Endoscopic full-thickness gastric resection (EFTGR) with laparoscopic regional lymph node dissection (LLND) and endoscopic submucosal dissection (ESD) with LLND have been investigated as treatment options for early gastric cancer beyond the absolute indications for ESD. However, comparative studies on the long-term outcomes of these procedures are lacking. This study aimed to analyze and compare the 10-year outcomes of both procedures in a real clinical setting.

Methods Between January 2009 and December 2013, 28 and 37 patients diagnosed with EGC beyond the absolute indications for ESD were treated with EFTGR with LLND and ESD with LLND, respectively. In both procedures, the dye was injected into the tumor. However, after injection and LLND, EFTGR was performed immediately in the EFTGR with LLND group, whereas LLND was followed by ESD in the ESD with LLND group. The primary endpoint was the 10-year survival rate.

Results The EFTGR with LLND group had one case of local recurrence (3.6 %) and mortality (3.6 %) each, while the ESD with LLND group had none (0.0 % for both); however, the differences were not statistically significant ($P = 0.247$ for each). Furthermore, there was no significant difference in complications such as ischemia and anastomosis leakage between the groups ($P = 0.247$).

Conclusions When the procedures were properly applied, EFTGR with LLND and ESD with LLND did not increase the 10-year mortality in patients with EGC beyond the absolute ESD indications compared with conventional radical gastrectomy. [1–5]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP303 Analysis of post-endoscopy upper GI cancers (PEUGIC) in a single centre UGI managed clinical network in the West of Scotland from 2020-2022

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Aims 15,800 people in the UK are diagnosed with oesophageal or gastric cancer each year. Upper GI cancers missed at index endoscopy may lose the opportunity for curative treatment. Post-endoscopy upper gastrointestinal cancer (PEUGIC) is defined as a cancer diagnosed within 3 years of an endoscopy which did not detect malignancy. A 2011 study demonstrated the PEUGIC rate at our centre to be 10.4 %. This study aims to review post-endoscopy upper GI cancer rates and identify contributing factors.

Methods A retrospective analysis was performed on all cases of upper GI cancer diagnosed within NHS Greater Glasgow and Clyde between 2020-2022. Cases were identified from the West of Scotland Upper GI Managed Clinical Network, which includes all patients discussed at the regional MDT meeting. Electronic patient records were reviewed on Clinical Portal to identify those who had an endoscopy in the preceding 3 years which did not diagnose an upper GI cancer. 121 patients met inclusion criteria (Group A). Patient data including sex, age, past medical history and medication was collected, as well as procedure details including grade of endoscopist, time of procedure and sedation use. Recent publications on this topic suggest 6-36 months post-endoscopy as a more accurate definition of PEUGIC, therefore this subgroup was also analysed (Group B).

Results 12.9 % of patients diagnosed with an upper GI cancer between 2020 and 2022 fit the definition of PEUGIC (A). 6.7 % of patients had an endoscopy 6-36 months preceding their cancer diagnosis (B). 72.7 % (A)/68.3 % (B) of patients were male, and mean age at diagnosis was 71.4 years (A)/71.5 years (B). Mean time from index endoscopy to cancer diagnosis was 11.8 months (A)/22 months (B). 54.5 % (A)/60.3 % (B) of patients had symptoms of gastro-oesophageal reflux disease, 77 % (A)/87.3 % (B) were taking a proton-pump inhibitor, and 31.4 % (A)/46 % (B) were known to have Barrett's oesophagus. 61 % (A)/61.9 % (B) of missed cancers were located within the oesophagus, 26.6 % (A)/20.6 % (B) in the stomach and 11.6 % (A)/14.3 % (B) at the gastro-oesophageal junction. Adenocarcinoma was the predominant histological tumour type (46.3 % (A), 41.3 % (B)), followed by intramucosal adenocarcinoma (24 % (A), 23.8 % (B)) and squamous cell carcinoma (17.4 % (A), 17.5 % (B)). There were similar miss rates amongst Consultant gastroenterologists, Consultant surgeons and nurse endoscopists. 58 % (A)/66 % (B) of PEUGIC patients had their procedure on an afternoon list. Mean midazolam dose was 1.5mg for both groups. Fentanyl was used in only 8.3 % (A)/4.8 % (B) of cases.

Conclusions Our PEUGIC rate was higher than in 2011 at 12.9 %. Factors identified in this study may impact identification of upper GI cancer at time of endoscopy. We plan to analyse all upper GI cancer cases identified from 2020-2022 to identify modifiable factors which are more prevalent in the PEUGIC group. [1–3]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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Quality endoscopy: Linking performance and outcome

27/04/2024, 13:30 – 14:30 **Room 11**

OP292 Gastroenterology-Specific AI Model GastroGPT Outperforms Attending Physicians' and ChatGPT in Analyses of Clinical Notes of Real-World Endoscopy Cases

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Aims Endoscopic procedures involve non-endoscopist collaboration in healthcare presentations. Despite AI potential, like GastroGPT, its use is limited, emphasizing the need for greater clinical integration. Our team developed GastroGPT, a Gastroenterology specific LLM for clinical based text generation. Previous studies showed this approach outperforms general LLMs and attending physicians in general gastroenterology tasks and simulated cases. However, its success in an endoscopy field and comparison to physician note texts is not known. As such, the study aims to assess GastroGPT's abilities in comparison with attending physicians and ChatGPT-4 serving as a reference model, across seven different components of patient care sequence using authentic patient data from real-life endoscopy cases.

Methods GastroGPT was assessed with meticulously selected ICU admission cases with a specific focus on endoscopy, utilizing MIMIC-III which comprises de-identified thorough patient data from 3,530 ICU admissions. Clinical notes of GastroGPT among seven domains of assessment and summary, additional history taking, diagnostic evaluation, treatment management, follow-up, referring and consultation, and patient education scored by an expert-derived weighted objective rubric in comparison with matching physician notes and notes of ChatGPT-4 in each domain. Outcomes primarily included overall weighted performances and secondarily performances on separate tasks in each domain. Multivariable regression identified score predictors.

Results GastroGPT achieved higher scores compared to attending physicians for patient admission notes in gastroenterology-focused cases (8.1 ± 0.6 vs 6.5 ± 1.4, $p < 0.001$). Across all clinical tasks in the notes, GastroGPT showed superior performance to attending physician: 1) assessment and summary (8.70 ± 0.36 vs 6.71 ± 0.45), 2) diagnostic evaluation (8.87 ± 0.19 vs 7.13 ± 0.37, $p < 0.001$), 3) treatment management (7.49 ± 0.55 vs 5.53 ± 0.36, $p < 0.001$), 4) follow-up (8.31 ± 0.49 vs 7.16 ± 0.25, $p < 0.001$) 5) referring and consultation (6.70 ± 3.03 vs 5.51 ± 0.52, $p < 0.001$). In 6) Additional history taking and 7) Patient Education domains, GastroGPT was compared only with ChatGPT-4 and had superior scores. GastroGPT substantially outperformed ChatGPT4 in all domains ($p < 0.001$), which scored inferior to physicians (6.70 ± 3.03 vs 5.51 ± 0.52; $p < 0.05$). In multivariable analysis, GastroGPT was a predictor of higher scores after adjusting for other clinical factors. Multivariable analysis established GastroGPT as a predictor of higher scores, adjusting for clinical factors. Subgroup analysis demonstrated consistent GastroGPT performances by complexity.

Conclusions Our gastroenterology-focused Large Language Model (LLM) GastroGPT outperformed attending physicians' notetaking in contrast to the ChatGPT-4 which scored inferior to the physician notes in endoscopy cases. GastroGPT pioneers specialty-specific, clinically-oriented AI models, with a promising potential to significantly transform medicine.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP293 Are endoscopic findings clinically significant in case of 18F-FDG-PET incidental uptakes of the gastrointestinal tract in cancers patients ? A multicentric rétrospective study

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Aims Gastrointestinal tract (GIT) incidental uptakes on 18-fluorine-fluorodeoxyglucose positron emission tomography (18F-FDG-PET) is a common situation leading to endoscopic investigation potentially useless in cancer patients. In these patients and because endoscopic findings can be clinically relevant, we need precise criteria to help choice making to perform endoscopy or not. We aimed to find criteria that could help physician to avoid useless endoscopy in case of GIT 18F-FDG-PET incidental uptake in cancers patient.

Methods Retrospective study from three French comprehensive cancer centers. We included all consecutive patients with personal history of cancer undergoing complete colonoscopy or upper endoscopy indicated in case of colorectal or upper GIT 18F-FDG-PET incidental uptake between May 2021 and May 2023.We excluded patient with incomplete colonoscopy and 18F-FDG-PET performed in case of colorectal or esophago-gastric cancer.Primary outcome was the clinical relevance of endoscopic findings regarding oncologic status of patient. We defined as not clinically relevant: benign findings (adenomas, inflammation, diverticulum, hyperplastic polyps) in patient with cancer progression or active malignancy under treatment. And also, in all patients, benign findings that didn't require endoscopic follow up (inflammation, diverticulum, hyperplastic polyps). We defined as clinically relevant: malignant findings in all patient, and also benign findings requiring endoscopic follow-up (adenomas) in patients in remission or initial cancer staging. Secondary outcomes were clinical and 18F-FDG-PET features that could help to avoid performing endoscopy.

Results Two hundred ninety-six patients were included, 118 males (40 %), mean age was 67y (+ /- 11 SD), with respectively 244 (82 %) and 52 cases (18 %) of solid and hematologic malignancies.18F-FDG-PET were indicated for initial cancer staging or follow-up in patients in remission in 204 cases (69 %), progression or follow-up in patients with active cancer in 92 cases (31 %). Incidental uptakes were focal in 265 cases (89 %) concerning mainly the left colon (n = 150, 51 %) with mean SUVmax of 10.8 (+ /- 6.6 SD). We didn't find lesion in 63 cases (21 %), and we found endoscopic lesions elsewhere on the digestive tract explored than on the uptake site in 88 cases (30 %), it was always benign lesions.

Endoscopic findings were not clinically relevant in 134 patients (45 %) while they were clinically relevant in 162 cases (55 %) with malignancy findings in 49 patients (17 %).

Endoscopy 2024; 56: S1–S503

Diffuse uptakes were statistically associated with the absence of clinically relevant findings (OR 0.10 [0.03,0.29] p < 0.001) but malignancy was found in 4/31 cases of diffuse uptake (13 %) and didn't able to avoid endoscopy. [1–3]

Conclusions We didn't show sufficient evidence to avoid endoscopy in case of incidental GIT 18F-FDG-PET uptakes because endoscopic findings were clinically relevant in 45 % of our patients. Diffuse uptake seems to be the single criteria predicting a lower risk of endoscopic findings clinically relevant.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP294 Gastric neoplasm detection of computer-aided device assisted esophagogastroduodenoscopy changes with different pragmatic implement scenarios: a real-world study

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Aims The implementation of computer-aided detection (CAD) devices in esophagogastroduodenoscopy (EGD) could autonomously identify gastric precancerous lesions and neoplasms, and reduce the miss rate of gastric neoplasms in prospective tandem trials. However, there is still insufficient evidence of their use in real-life clinical practice.

Methods A real-world, two-center, large-volume, pragmatic study was conducted at Wenzhou Central Hospital (WCH) and Renmin Hospital of Wuhan University (RHWU). Random biopsy and target biopsy were adopted and CAD devices were applied in 2019 and 2021 at WCH and RHWU, respectively. We compared differences in gastric precancerous and neoplasm detection of EGD before and after the use of CAD devices in the first half of the year.

Results A total of 33885 patients were included and 32886 patients were ultimately analysed. In WCH of which biopsy rate > 95 %, with the implementation of CAD, more early gastric cancer detection rate (0.35 % vs. 0.59 %, p = 0.028) was found while gastric neoplasm detection rate (1.39 % vs. 1.36 %, p = 0.897) remained stable. In RHWU of which biopsy rate < 20 %, the gastric neoplasm detection rate (1.78 % vs. 3.23 %, p = 0.000) nearly doubled after the implementation of CAD while there was no significant change in the early gastric cancer detection rate.

Conclusions In conclusion, the present study found that the application of CAD devices devoted to distinct increases in gastric neoplasms detection according to different biopsy strategies. When CAD devices were subject to real-world evaluation and scrutiny, they demonstrated optimistic while varied effectiveness according to different implementation scenarios. The above findings can help to point out and explain potential issues and inefficiencies of implementation of CAD devices, and sketch the roadmap to both the evolution of these devices and the optimal ways to incorporate them in clinical practice. [1–21]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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OP295 Influence of the morphology and consistency of the papilla on the success rate of biliary cannulation

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Aims Papillary morphology has been related to the cannulation success in different studies. However, papillary consistency is not such an analysed factor and could also intervene.

The objective was to analyse the influence of the papillary morphology and consistency on the papillary cannulation success.

Methods We performed a prospective study from 2020 to 2023, where we included patients over 18 years of age with naïve papilla. We classified the papillary morphology into type I (regular), type II (small), type III (protruding) and type IV (creased). We classified the consistency into normal, elastic (defined as that which disappears when touched with the sphincterotome), soft (defined as a tumour papilla, in which guidewire perforations are produced) and infiltrative (defined as very hard).

Results We included 1364 patients (53 % males, 47 % females). The average age was 72, 61 years (13-101). The American Society of Anaesthesiologists (ASA) classification was ASA III (56, 7 %), ASA II (26, 8 %), ASA IV (11, 9 %), ASA I (4, 6 %) and ASA V (0, 1 %). We used deep sedation in 58 % of the patients and general anaesthesia in 42 %. The reasons for requesting the ERCP were choledocholithiasis (62 %), malignant strictures (24 %) and others (14 %). We classified the papillary morphology into type I in 70,4 % of the ERCPs, type II in 17 %, type III in 11,2 % and type IV in 1,4 %. We divided thepapillary consistency into normal 81, 5 %, elastic 13, 6 %, soft1, 7 % and infiltrative 3, 2 %. The cannulation success was significantly lower in type IV papilla (95, 2 % vs 90, 4 % vs 95, 2 % vs 66, 7 %, p < 0, 0001). We performed a significantly greater number of fistulotomies in types III and IV (3, 2 % vs 5, 9 % vs 13, 8 % vs 13, 3 %; p < 0, 0001). We also performed more US guided biliary drainages in type IV (3, 6 % vs 4, 3 % vs 3, 3 % vs 33, 3 %; p < 0, 0001). According to the consistency, we obtained a significantly higher cannulation success rate in papillae with normal consistency (96, 9 % vs 82 % vs 73, 7 % vs 82, 9 %; p < 0, 0001). We also conducted a significantly lower number of fistulotomies y normal constancy papilla (3, 1 % vs 13, 4 % vs 10, 55 vs 17, 1 %; p < 0, 0001). We found no significant differences when comparing complications between the different groups of papillary morphology (13.2 % vs 13,3 %, 8.9 % vs 0 %, p > 0.604) and papillary consistency (12,6 % vs 16.7 % vs 10.5 % vs 2.9 %, p 0.465). [1]

Conclusions The so-called creased papilla and non-normal papillary consistency complicate papillary cannulation significantly, forcing to perform alternative cannulation techniques or US-guided biliary drainage more frequently.

Conflicts of interest Authors do not have any conflict of interest to disclose.

References

[1] Haraldsson E et al. Macroscopic appearance of the major duodenal papilla influences bile duct cannulation: a prospective multicenter study by the Scandinavian Association for Digestive Endoscopy Study Group for ERCP. Gastrointest Endosc 2019; 90: 957–963

OP296 Eliakim score performance among patients with active Crohn's disease

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Aims Pan-enteric capsule endoscopy [PEC] (PillCam Crohn's, Medtronic, USA) is a useful tool for disease assessment and monitoring in Crohn's disease (CD). We have previously demonstrated the reliability and accuracy of Eliakim score (ES) in the assessment of CD-activity among patients with quiescent disease. We aimed to examine the performance of ES among patients who experienced clinical flare, as well as its responsiveness and sensitivity to change during follow-up.

Methods Patients with CD who have been started on biologics were included. They were prospectively followed with clinical visits, biomarkers and PEC at baseline, and after 14 and 52 weeks. At each time-point Crohn's disease activity index (CDAI), C-reactive protein (CRP) and fecal-calprotectin (FC) levels were collected, and Lewis score (LS) and ES were calculated (independently reviewed by two experienced readers). Inter-class classification (ICC) was used to asses for agreement between readers. Baseline correlations were obtained using the Spearman's correlation. Repeated-measures correlation (RMC) was calculated using the rmcorr package in R (version 3.3-1). William's test was used to assess difference between correlations.

Results Seventy-four patients were included (median age of 31.0 [22.5-46.5] years, male–50 %). 142 PEC procedures were performed (Baseline– 62, week 14– 58, week 52– 22). Inter-rater agreement between both readers was high for both the LS and ES (ICC of 0.872 [p < 0.001] and 0.925 [< 0.001], respectively). The baseline correlations between FC and ES (r = 0.509 [p < 0.001]) and FC and LS (r = 0.467 [p < 0.001]) were comparable (p = 0.68). RMC between biomarkers and ES were higher than between biomarkers and LS (CRP: r = 0.376 [p = 0.005] vs. r = 0.204 [p = 0.138], FC: r = 0.549 [p < 0.001] vs. r = 0.412 [p = 0.003], for ES and LS, [p = 0.034/0.021], respectively).Performing subgroup analysis restricted to procedures which were confined to the small bowel (n = 88), RMC was numerically higher (p = 0.12) between FC and ES (r = 0.590 [p = 0.001]) than between FC and LS (r = 0.470 [p = 0.010]).

Conclusions ES is a reliable and accurate scoring system in assessing mucosal inflammation in patients with active CD, and might have a higher sensitivity to clinical/inflammatory biomarker changes over time compared to LS.

Conflicts of interest Bella Ungar received consultation fees from Neopharm,Takeda, Janssen, and AbbVie. Rami Eliakim received consultant and speaker fees from Janssen, AbbVie, Takeda, and Medtronic. Uri Kopylov received speaker fees from AbbVie, Janssen, and Takeda; research support from Takeda and Janssen; and consulting fees from Takeda and CTS. Shomron Ben-Horin has received advisory board and/or consulting fees from AbbVie, Takeda, Janssen, Celltrion, Pfizer, GSK, Ferring, Novartis, Roche, Gilead, Neopharm, Predicta Med, Galmed, Medial Earlysign, BMS, and Eli Lilly; holds stocks/options in Predicta Med, Evinature, and Galmed; and received research support from AbbVie, Takeda, Janssen, Celltrion, Pfizer, and Galmed.

OP297 Comparison between EUS Guided and percutaneous peri-rectal abscess/fluid drainage. A randomized prospective single referral center study

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DOI 10.1055/s-0044-1783004

Aims To compare the efficacy and safety of the EUS-guided peri-rectal fluid collection with percutaneous drainage.

Methods All adult patients with peri-rectal fluid collections who presented to our hospital from January 2014 to July 2023 were randomized to undergo EUS-guided and percutaneous drainage. 68 patients who consented were enrolled in the study and allocated to the two groups randomly. EUS-guided drainage was performed either through aspiration only using a 19G needle or putting plastic or Lumen exposing metal stents. Percutaneous drainage was performed using pigtail catheters under USG or CT guidance by an experienced Interventional Radiologist. All procedures were done under conscious sedation. A follow-up CT was done at 4 weeks and at 12 weeks for each case.

Results 38 Patients underwent EUS-guided drainage and 30 patients underwent percutaneous drainage.The mean size of the abscess/collection was 7.8 X 4.2 and 8.2 X 4.8 cm, respectively (P = 0.23). A median follow-up of 32 months (IQR 22- 48 months) was done. In the EUS guided group, 19 were drained through SEMS placement, 11 through double pigtail placement, and 8 through simple aspiration using 19G Needle. [1]

Technical success in EUS-guided and percutaneous-guided drainage was 97.36 % (95 % confidence interval [CI] 91 – 100) and 93.3 % (95 % confidence interval [CI] 86 – 98) (P = 0.26). Clinical success was 94.7 % and 83.3 % (P = 0.04). The mean time of the procedure was 16.8 ± 5.2 minutes versus 29.7 ± 3.5 minutes(P-0.05). Post-procedure pain was seen in 5.55 % and 63.33 % (p = 0.0001). Other adverse events like bleeding, perforation and stent migration were seen in 5.55 % and 14.28 %, respectively. Median Hospital stay was 3 days (IQR 1-7) and 7 (1QR 3-11) days (P = 0.04).

Recurrence rate was 8.33 % and 17.85 % (P = 0.03). Patient satisfaction was seen in 91.66 % and 67.85 % of the patients (p = 0.008).

Conclusions EUS-guided peri-rectal abscess or pelvic fluid collection is a more effective, safer, quicker, and more acceptable minimally invasive drainage modality compared to the percutaneous.

Conflicts of interest Authors do not have any conflict of interest to disclose.

References

[1] Poincloux L, Caillol Fet.al. Long-term outcome of endoscopic ultrasound-guided pelvic abscess drainage: a two-center series. Endoscopy 2017; 49 (5): 484–490

Artifical intelligence in colonosopy: Human versus machine!

27/04/2024, 13:30 – 14:30 **Room 10**

OP304 Variability in Computer-Aided Detection effect on Adenoma Detection Rate in randomized controlled trials: a meta-regression analysis

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Aims The assistance of computer-aided detection (CADe) systems during colonoscopy may increase adenoma detection rate (ADR), theoretically reducing the risk of post-colonoscopy colorectal cancer (PCCRC). Although the promising results in different randomized trials, both the variability of the magnitude of relative effect of CADe systems across the previous studies, and the contradicting results in the first real-life experiences, highlighted a clear gap of knowledge when looking for those factors possibly explaining these fluctuating results. The aim of our analysis was to investigate the different variables possibly affecting the impact of CADe-assisted colonoscopy and its effect on ADR.

Methods We searched MEDLINE, EMBASE, and Scopus databases until July 2023 for RCTs reporting diagnostic accuracy of CADe systems in the detection of colorectal neoplasia (PROSPERO: CRD42023462438). The main outcome was pooled adenoma detection rate (ADR). We calculated risk ratios (RRs), and performed meta-regression analysis to explore thesources of heterogeneity. The variables examined included factors with an impact on expected prevalence of adenomas across the study populations, such as gender, age and colonoscopy indication. We also included both key (ADR), and minor (Withdrawal time) performance measures considered as quality indicators for colonoscopy.

Results Twenty-three randomized controlled trials (RCTs) on 19,077 patients were include. ADR was higher in the CADe group than in the standard colonoscopy group (45.83 % versus 38.28 %; RR 1.22 [95 % CI 1.14-1.29]) with substantial level of heterogeneity (I^2 = 67.69 %). In univariable meta-regression analysis, patient age, ADR in control arms, and withdrawal time were the strongest predictors of CADe effect on ADR (P < .001), whereas FIT as an indication for colonoscopy was only suggestively associated with the outcome (P = 0.098), and was included in the multivariable analysis. The proportion of male patients was not apparently associated with the CADe effect on ADR. In multivariable meta-regression, ADR in control arms, and withdrawal time were simultaneous significant predictors of the proportion of the CADe effect on ADR.

Conclusions In conclusion, the substantial level of heterogeneity found appeared to be associated with variability in colonoscopy quality performances across the studies. As a matter of fact, across all the studies in which the CADe system showed no relative effect, the baseline ADR was higher than 60 % suggesting a possible “ceiling effect” with little room left for improvement in the intervention group. On the other hand, endoscopists with lower quality performances are going to benefit the most from the use of CADe systems during colonoscopy, irrespectively from the expected adenoma prevalence across different populations. Thus, the implementation of CADe-assisted colonoscopy is supposed to help in reducing the gap in term of detection performances between high- and low- detectors.

Conflicts of interest Authors do not have any conflict of interest to disclose.

OP305 Using computer aided optical polyp diagnosis (CADx) and expert review to evaluate colorectal polyps diagnosed as "normal mucosa" in pathology

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Aims Histopathology assessment is currently considered the gold standard for typing of diminutive colorectal polyps; however, polyps are frequently diagnosed as normal mucosa in pathology. We were therefore interested in re-evaluating pathology-based diagnosis of “mucosal polyps” using expert endoscopists and Computer Assisted Diagnosis (CADx) evaluation.

Methods We extracted video sequences showing polyps diagnosed as "normal mucosa" and conducted a video-based review with two expert endoscopists (DKR, HP) to obtain optical diagnosis for each polyp. Both experts were blinded to the fact that these polyps had been diagnosed as “normal mucosa” in pathology until after all optical diagnoses were obtained. Experts evaluated the polyp initially under white light, then under Blue Light Imaging, then with CADx diagnosis shown, and were asked to diagnose each polyp before and after seeing CADx results.

Results 449 polyps were resected and sent for histologic analysis, of which, 44 polyps (in 36 patients) were diagnosed as normal mucosa by pathology. Expert-based diagnoses of polyps diagnosed as "normal mucosa" were 43-45 % adenoma, 40-43 % hyperplastic, and 9-11 % sessile serrated lesion. There was unanimous expert and CADx adenoma diagnosis for 15 polyps, and unanimous SSL diagnosis for 2 polyps between the experts. Amongst these lesions, 11/17 patients had changes in originally assigned surveillance intervals when incorporating the updated diagnoses. Review of post resection specimen evaluation or polypectomy video sequences showed that at least 90 % of polyp resections were adequate. Errors in pathologic processing, sectioning, and evaluating of specimens are therefore likely the cause of misdiagnosis.

Conclusions Occurrence of polyps evaluated as normal mucosa is frequent and has potential implications for patient care. This warrants further evaluation of the phenomenon in prospective clinical studies. Endoscopists should con-

sider routinely using CADx and photo or video documentation for arbitration of polyps diagnosed as normal mucosa in pathology.

Conflicts of interest Daniel von Renteln has received research funding from ERBE Elektromedizin GmbH, Ventage, Pendopharm, Fujifilm and Pentax, and has received consultant or speaker fees from Boston Scientific Inc., ERBE Elektromedizin GmbH, and Pendopharm. The remaining authors declare that they have no conflict of interest.

OP306 Autonomous Artificial Intelligence versus AI Assisted Human optical diagnosis of colorectal polyps: A randomized controlled trial

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DOI 10.1055/s-0044-1783007

Aims Artificial intelligence-based optical diagnosis systems (CADx) have been developed to allow pathology prediction of colorectal polyps during colonoscopies. However, CADx systems have not yet been validated for autonomous performance. Therefore, we conducted a trial comparing Autonomous AI (AI-A) to AI assisted human (AI-H) optical diagnosis.

Methods Artificial intelligence-based optical diagnosis systems (CADx) have been developed to allow pathology prediction of colorectal polyps during colonoscopies. However, CADx systems have not yet been validated for autonomous performance. Therefore, we conducted a trial comparing Autonomous AI (AI-A) to AI assisted human (AI-H) optical diagnosis.

Results 467 patients were randomized (229 in the AI-A group, 238 in the AI-H). Overall accuracy for optical diagnosis was 77.2 % (95 %Confidence Interval [CI] 69.7-84.7) in the AI-A group and 72.1 % (95 % CI 65.5-78.6) in the AI-H group (p = 0.86). Sensitivity, specificity, PPV and NPV for adenoma diagnosis were 84.8 %, 64.4 %, 85.6 %, and 63.0 % respectively in the AI-A group vs 83.6 %, 63.8 %, 78.6 %, and 71.0 % in the AI-H group. Diagnostic performance did not differ significantly between the two groups. AI-A had statistically significant higher agreement with pathology-based surveillance intervals compared to AI-H (91.5 % [95 % CI 86.9-96.1] vs 82.1 % [95 % CI 76.5-87.7]; p = 0.016).

Conclusions Autonomous AI-based optical diagnosis had non-inferior accuracy to endoscopist-based diagnosis but achieved higher agreement with pathology-based surveillance intervals. Resect-and-discard and diagnose-and-leave strategies can therefore be considered with current CADx versions without requiring human input.

Conflicts of interest Daniel von Renteln has received research funding from ERBE Elektromedizin GmbH, Ventage, Pendopharm, Fujifilm and Pentax, and has received consultant or speaker fees from Boston Scientific Inc., ERBE Elektromedizin GmbH, and Pendopharm. The remaining authors declare that they have no conflict of interest.

OP307 Computer-Aided Diagnosis for Leaving-in-situ of Colorectal Polyps: A systematic review and meta-analysis

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DOI 10.1055/s-0044-1783008

Aims Real-time computer-aided optical diagnosis (CADx) with artificial intelligence aims at assisting endoscopists to distinguish neoplastic from non-neoplastic diminutive rectosigmoid polyps during colonoscopy and thus reduce unnecessary removal of polyps. This systematic review and meta-analysis of accuracy studies aim to quantify the benefits and harms of CADx in colonoscopy.

Methods We searched MEDLINE, EMBASE, and Scopus databases from inception until January 31, 2023. We included histologically-verified accuracy diagnostic studies that evaluated real-time performance of physicians in predicting neoplastic change of small (<5mm) rectosigmoid polyps without or with CADx assistance during colonoscopy. We estimated clinical benefit and harm based on accuracy values of the endoscopist before and after CADx assistance. Certainty of evidence was assessed with using the GRADE framework. The outcome measure for benefit was the proportion of polyps predicted as non-neoplastic that could avoid removal under the use of CADx. The outcome measure for harm was the proportion of neoplastic polyps that could be not resected and left-in-situ due to an incorrect diagnosis under the use of CADx. Histology served as ground-truth for both of the outcomes.

Results Seven studies including 1,945 patients with 3,128 small rectosigmoid polyps were analyzed. The studies that assessed stand-alone performance of CADx (6 studies, 2,151 polyps) showed 89 % (95 % CI 84 % – 94 %) sensitivity and 85 % (95 % CI 73 % – 97 %) specificity in predicting neoplastic change. In the studies that compared histology prediction performance before and after the CADx assistance (3 studies, 1,770 polyps), there was no difference in the proportion of non-neoplastic polyps that could avoid removal (58 % versus 61 %; risk ratio 1.06, 95 % CI 0.92 – 1.22; moderate certainty evidence). There was no difference in the proportion of neoplastic polyps that would be erroneously left-in-situ (8 % versus 8 %; risk ratio, 1.06, 95 % CI 0.72 – 1.58; moderate certainty evidence).

Conclusions CADx provided no incremental benefit nor harm in the management of small rectosigmoid polyps during colonoscopy. The limitation of our analysis was that most included studies were undergone on trained expert endoscopists, and the application of optical diagnosis was only simulated, potentially altering the decision making process of the operator.

Conflicts of interest Cesare Hassan: Fujifilm Co. (consultancy); Medtronic Co. (consultancy), Emanuele Rondonotti Fujifilm Co. (speaking honorarium); Medtronic Co. (consultancy), Yuichi Mori: Olympus Corp (consultancy, speaking honorarium, equipment loan); Cybernet System (ownership interest), Alessandro Repici: Fujifilm Co. (consultancy); Olympus Corp (consultancy); Medtronic Co. (consultancy). Other authors: nothing to disclose.

OP308 The accuracy of real-time use of artificial intelligence diagnosis (CAD EYE) of colorectal polyp using blue laser imaging

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DOI 10.1055/s-0044-1783009

Aims The differential diagnosis between adenomatous and non-adenomatous colorectal polyps is important to determine the need for polypectomy. Data regarding the real-time artificial intelligence (AI) diagnosis using CAD EYE version 2.0 (Fujifilm, Tokyo, Japan) with blue laser imaging is scarce. The aim of this study is to clarify the accuracy of AI diagnosis in estimating pathological diagnosis of colorectal polyps compared to an expert endoscopist.

Methods Colorectal polyps endoscopically resected in our institution were included and reviewed. All colonoscopies (EC-L600ZP7, Fujifilm) were recorded in high-definition video. The real-time AI diagnosis of CAD EYE had two categories including adenomatous (neoplastic) or non-adenomatous (hyperplastic). Surface pattern diagnosis was also performed by a board certified, expert endoscopist, with experience of more than 5000 colonoscopies. The procedure was performed and when the endoscopist identified a lesion had to classify it with magnification; afterwards the real-time AI diagnosis was activated with magnification and its assessment of the lesion was recorded. Polyps located on the left-sided colon that the expert endoscopist diagnosed as hyperplastic polyps with confidence were not resected. The diagnoses of the AI and the expert were compared with the final pathological report.

Results A total of 157 polyps in 100 patients (male 55, female 45) were included and analyzed; mean size was 5.7 mm. The lesions were located on cecum (n = 17), ascending colon (n = 30), transverse colon (n = 66), descending colon (n = 7), sigmoid colon (n = 25) and rectum (n = 12). Histopathological review classified 107 lesions as adenomatous and 50 as non-adenomatous polyps. The sensitivity, specificity, positive predictive value and negative predictive value of AI diagnosis were 74 %, 56 %, 87 % and 36 %, respectively. The sensitivity, specificity, positive predictive value and negative predictive value of the expert were 90 %, 66 %, 91 % and 64 %, respectively. The accuracy of AI diagnosis was significantly lower than that of the expert (71 % vs 85 %, p = 0.001). Additionally, a subgroup analysis was performed in order to identify if the polyp size has any influence on the final diagnosis; all lesions were divided in two groups, into diminutive (< 5mm, n = 76) and non-diminutive group (5 mm or larger, n = 81). Regarding the AI diagnosis, the accuracy of diagnosis for diminutive polyp was significantly lower than for non-diminutive ones (58 % vs 83 %, p < 0.001). Similar results were observed in the accuracy of the expert (diminutive 78 % vs non-diminutive 93 %, p = 0.005).

Conclusions The accuracy of the current version of AI diagnosis for colorectal polyps is inferior to an expert endoscopist. Comparison of AI with endoscopy trainees might show different results. Further improvements are necessary in order to improve AI performance.

Conflicts of interest Dr. Yamamoto has patents for DBE produced by FUJIFILM Corporation, is a consultant for the corporation, and has received honoraria, grants, and royalties from the corporation. Dr. Yano has received honoraria and grants from FUJIFILM Corporation. Other authors declare that there is no conflict of interest.

OP309 Real-time automated assessment of histological disease activity in patients with ulcerative colitis using single wavelength endoscopy technology

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DOI 10.1055/s-0044-1783010

Aims Assessment of mucosal healing as a key denominator in the treat-to-target strategy for managing ulcerative colitis remains challenging. To address this, objective evaluation of histological disease activity holds promise. Recent offline research shows encouraging results using a new deep-learning convolutional neural network based on single wavelength endoscopy technology (SWE-CAD) (Fujifilm Co, Japan). We aimed to validate the real-time performance of a new bedside prototype SWE-CAD model during standard colonoscopy.

Methods A bedside module for real-time use was integrated in the endoscopy room to evaluate histological disease activity in patients with ulcerative colitis with Mayo Endoscopic Scoring (MES) ranging between 0 and 3. Imaging was performed in rectum and sigmoid following a standardized protocol based on white light and SWE (i.e. monochromatic light of 410nm). Biopsies were taken as reference at the center of the imaged region and were scored for the Geboes score (GBS). The SWE-CAD output was displayed on the separate monitor of the bedside module as a blue or red-colored indication, corresponding to histological remission or non-remission, respectively. Each region (2 in rectum and 2 in sigmoid) was simultaneously scored for MES by the endoscopist.

Results In a total of 36 patients histological disease activity was automatically scored using the SWE-CAD. On a section level this CAD-system showed an accuracy of 96.4 %, corresponding sensitivity was 99.3 % and specificity was 85.5 %.

When differentiating for disease activity as mild, moderate and severe, accuracy was 97.7 %, 62.8 % and 95.0 %, respectively. On a per-patient level, overall diagnostic accuracy remained high with 94.4 %, with only 2/36 underestimations when compared to GBS.

Conclusions In this pilot trial, we successfully tested a novel CAD-system, utilizing SWE technology, for real-time assessment of histological disease activity in patients with UC. The system demonstrated exceptional clinical accuracy at 94.4 % per-patient level, potentially aiding physicians in interpreting subtle endoscopic abnormalities, leading to cost-effective and individualized patient management.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Moderated Poster

What is new in IBD endoscopy

25/04/2024, 08:30 – 09:30 Science Arena: Stage 2

MP001 Endoscopic Resection of Visible Precancerous Lesions in Inflammatory Bowel Disease

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Aims Chronic inflammation predisposes patients with inflammatory bowel disease (IBD) to a higher risk of colorectal cancer. When dealing with visible dysplastic lesions without optical characteristics of deeply invasive cancer, endoscopic resection (ER) is preferred over surgical resection. Despite this, there is a lack of conclusive evidence regarding the specific outcomes of ER in managing dysplastic lesions within the context of IBD. This study aims to assess the effectiveness and safety of ER for visibly dysplastic lesions in IBD patients.

Methods This retrospective study assessed IBD patients referred to the St. Michael's Endoscopy Unit between 2012 and 2023 who underwent endoscopic mucosal resection (EMR) or endoscopic submucosal dissection (ESD) or hybrid EMR-ESD (hESD), for management of sporadic polyps or IBD-related dysplasia. The primary focus was on evaluating rates of en-bloc resection, R0 resection, adverse events (AEs), specifically bleeding and perforation and recurrence at surveillance colonoscopy (SC1).

Results Overall, a total of 46 patients underwent endoscopic resection with 58 total lesions removed. The majority, 49 (84 %) were removed by EMR, 3 (5.1 %) by ESD and 6 (10.3 %) by hESD. UC was the most common type of IBD with 77.8 % of patients having UC compared to only 15.5 % having CD. The majority of patients had extensive colitis (61.5 %). The most commonly used medication was 5ASA (55 %), followed by biologics (21.7 %) and 15.2 % of patients reported using no medication. In the EMR group (N = 49), dysplastic lesions were most frequently located on the right-sided (52.1 %). In the ESD group (N = 3), all lesions were left-sided. The majority of lesions (84.4 %) had no surrounding disease activity, while 10.3 % had mild surrounding activity. Mean lesion size was larger in ESD (38.3 mm) compared to EMR (24.0 mm) and the hybrid approach (25.4 mm). Technical success rates were high overall (87.9 %). En-bloc resection rates were 66.7 % in the ESD group and 26.5 % in the EMR group. R0 resection rates were 25.9 % overall. There was only one perforation in the EMR group which was managed endoscopically (1.7 %). Nine patients underwent non-emergent surgical resection following multi-disciplinary review of their pathology results. Histologic findings included a minority of ulcerative colitis-associated neoplasia (UCAN) with LGD (6.9 %), and UCAN with HGD (3.4 %). The majority of lesions were sporadic, with 34 (58.6 %) showing LGD and 10 (18.5 %) showing HGD. Thirty post-resection SC1s were preformed in this cohort and the recurrence rate was 26.7 %.

Conclusions This study provides insights into outcomes of ER in IBD patients with dysplasia from an academic centre with expertise in advanced resection. The technical success for ER of these lesions was high, but the recurrence rates were higher than in a non-IBD population. The patients lost to follow up and the timeframe of recurrence prior to the use of adjunctive therapies, would have overestimated recurrences in this cohort. The complication rates were low, suggesting that ER of these lesions is feasible and safe appropriate patients with IBD.

Conflicts of interest CWT – Speaker: Medtronic and Boston Scientific, Consultant: Boston Scientific. GRM – Consultant for Olympus. Speaker: Pentax, Fuji and Medtronic. JDM – Speaker: Boston Scientific, Pendopharm, SCOPE rounds, Vantage, Medtronic. Medical Advisory Board: Pendopharm, Boston Scientific, Janssen, Pentax, Fuji. Grants and Research support: CAG.

MP002 Long-term follow-up of the PROTDILAT study; LONG-PROTDILAT Prospective multicenter randomized comparative study of endoscopic treatment of strictures in Crohn's disease (CD): self-expandable metal stent (SEMS) vs endoscopic balloon dilatation (EBD)

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Aims Background and Aims: The PROTDILAT study (Loras et al. Lancet Gastroenterol Hepatol. 2022) at 1-year follow-up showed greater efficacy of EBD vs SEMS for the treatment of short strictures in CD. Aims: To assess the long-term evolution of patients included in PROTDILAT study. 1). Percentage of patients free of surgery; 2) Factors related to surgery; 3) Need for endoscopic retreatments; 4) Effectiveness related to the type of initial endoscopic treatment (EBD vs SEMS); 5) Complications related to endoscopic or surgical treatment.

Methods Retrospective study based on PROTDILAT trial database (patients with CD, obstructive symptoms, with stenosis < 10cm). Data on medical, endoscopic and surgical treatment and smoking habits were collected. The effectiveness of endoscopic treatment is defined by the percentage of patients free of surgery and endoscopic retreatment at the end of follow-up.

Results Information available on 80/80 patients (39 SEMS, 41 EBD), 39 women, age (median): 45y (IQR: 38-55); median stricture length 3.4cm (IQR: 2-5.5), 42.5 % being anastomotic. Thirty percent (24/80) of patients required surgical resection [(median time to surgery 27.88 months (5.89-52.39)]. Factors associated to surgery: non-intensification of therapy (HR 0.23 (0.09-063)), treatment with EBD (HR 0.24 (0.09-0.7)) (with respect to treatment with EBD + SEMS) and number of stents (HR 2.88 (1.14-7.27)). Of the 56 patients free of surgery, during the entire follow-up (median 84 months (74.7-84.0)), a median of 2 endoscopic procedures (1-3) were performed: EBD in 45 cases (80.0 %) and SEMS in 26 cases (46 %). Thirty-eight-point seventy-five percent (31/80 patients) did not require neither surgery nor endoscopic retreatment during the follow-up. Out of 44/80 patients (16 SEMS vs 28 EBD) with primary treatment success in PROTDILAT study (1 year of follow-up) that not required surgery, the long-term effectiveness of endoscopic treatment was 56 % for SEMS and 68 % for EBD (p = 0.4), with a median follow-up of 84 months (70-84 months) for SEMS and 83 (70-84 months) for EBD. The complications related to endoscopic or surgical treatment were 8.75 % (7/80) versus 37.5 % (9/24) respectively (p = 0.002).

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Conclusions Endoscopic treatment (predominantly EBD) avoids surgery in most cases, requiring a low number of endoscopic treatments in the long-term. Patients at higher risk for surgery are those with a greater number of endoscopic treatments that include SEMS and EBD. On the contrary, protective factors are non-intensificationof therapy and having been treated exclusively with EBD. Although there are no significant differences in the long effectiveness between SEMS and EBD, a trend for a better outcome is observed for EBD. To highlight a significant higher rate of complications observed in surgicaltreatment compared to endoscopic treatment. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP003 Interobserver variability of endoscopic scores in Crohn's disease

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Aims The assessment of endoscopic activity in patients with Crohn's disease is of great importance as it influences patient management decisions. The most commonly used scores are CDEIS (Crohn's Disease Endoscopic Index of Severity), SES-CD (Simplified Endoscopic Activity Score for Crohn's Disease) and Rutgeerts Index in surgical patients. Although endoscopic indices provide an objective evaluation of disease severity, their complexity makes them inefficient for practical clinical use and studies assessing inter-observer agreement are scarce. The primary objective was to assess the inter-observer variability of endoscopic activity indices in patients with Crohn's disease between expert and non-expert Inflamatory Bowel Disease (IBD) endoscopists and their association with clinical activity indices and biomarkers.

Methods This prospective and observational study included Crohn's disease patients from the Inflammatory Bowel Disease Unit of a Spanish tertiary centre who underwent colonoscopy as part of routine clinical practice. The examinations were performed and recorded from the ileum to the rectum with clinical data concealed, excluding patients with poor preparation (Boston < 6). The recordings were graded according to the CDEIS, SES-CD and Rutgeerts indices by 7 experienced endoscopists from 4 national tertiary centres, 4 of whom were experts in IBD. Clinical data were collected from each patient's medical records. Interobserver variability was then analysed.

Results 22 videos were collected and analysed by 7 endoscopists, resulting in 154 evaluations. 59 % of patients were male with a mean age of 41.5 years. The median Harvey-Bradshaw index (HBI) was 5 points while the median CRP was 8.15 mg/L and the fecal calprotectin 653.15 µg/g. The CDEIS showed an overall ICC of 0.83 (0.733-0.915) and the SES-CD ICC was 0.77 (0.644-0.879). With ICC values of 0.91 and 0.88 respectively, the non-IBD expert group showed the best agreement for the CDEIS and the SES-CD. For the Rutgeerts Index, however, the overall kappa correlation was 0.68, with the best agreement in the IBD expert group. The correlations between both CDEIS and SES-CD and fecal calprotectin were good with r 0.445 (p = 0.065) and r 0.582 (p = 0.011) respectively. In contrast, both indices were weakly correlated with either CRP or HBI index.

Conclusions In conclusion, while the inter-observer variability of the CDEIS, SES-CD and Rutgeerts indices is generally good, a greater variability is observed in IBD experts compared to non-experts for the CDEIS and SES-CD, and the opposite for the Rutgeerts. Faecal calprotectin is an effective biomarker to indicate endoscopic activity in Crohn's disease, but HBI index or CRP do not show the same level of usefulness. Further research is required to simplify endoscopic assessment in Crohn's disease to improve its usefulness in clinical practice. [1–5]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP004 Assessing Intestinal Barrier Healing By Fusing Ultra-High Magnification Endoscope And Automated Spatial Multispectral Imaging Analysis In PSC-Colitis Patients

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Aims PSC colitis is associated with an increased risk of colorectal carcinoma. Endoscopic monitoring is crucial since endoscopic and histological activity can persist in PSC even during clinical remission. Recent evidence suggests that the presence of barrier dysfunction may predict relapse in quiescent patients. This study aims to assess mucosal and barrier healing in quiescent PSC colitis and evaluate the potential to predict outcomes by combining an ultra-high magnification endocytoscope (ECS) with intestinal barrier protein markers.

Methods 23 PSC-colitis patients in clinical remission requiring surveillance colonoscopy were prospectively enrolled. Ileal and colonic mucosa were assessed with high definition, virtual chromoendoscopy and ultra-high magnification ECS. Endoscopic remission was defined as MES ≤ 1, UCEIS ≤ 1, PICaSSO ≤ 3, while histological remission was defined as RHI ≤ 3 without lamina propria or epithelial neutrophils, NHI ≤ 1 and PHRI = 0. A novel ECS score was developed to assess ileal and colonic intestinal barrier. The expression of tight junction proteins (Claudin-2, Occludin, and JAM-A) was evaluated through immunohistochemistry and multiplex immunofluorescence, and it was quantified as cell density and mean expression using the automated inForm Akoya

Biosciences digital multiplex platform. The occurrence of significant adverse outcomes (steroid use, flare-ups, hospitalization, colectomy) was evaluated over a 12-month follow-up period.

Results Of 18 patients in endoscopic remission, 12 and 13 were in histological remission according to RHI and NHI, respectively. The ECS score correlated moderately with endoscopic score (r = 0.57 for MES, r = 0.44 for UCEIS and r = 0.54 for Picasso) and strongly with histological scores (r = 0.56 for RHI, r = 0.61 for NHI and r = 0.62 for PHRI), especially in the right colon. Only 5 patients experienced adverse outcomes. Notably, barrier healing, as indicated by an ECS score < 3 in the ileum and < 5 in the colon, was significantly associated with better outcomes. The three barrier proteins showed a distinct mucosal localization in both ileum and colon, with higher cell density of Occludin and Claudin-2 in the epithelium, while higher JAM-A cell density in the lamina propria. The combined assessment of the intestinal barrier by ECS and Claudin-2 cell density significantly predicted outcomes in both colon and ileum (p = 0.02 and p = 0.04, respectively).

Conclusions ECS combined with automated multispectral imaging analysis of intestinal barrier integrity is an innovative tool to assess barrier healing precisely and predicts significant adverse outcomes in PSC colitis patients in clinical, endoscopic, and histological remission.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP005 The arrival of CADe-IBD and the departure of IBD blues: Prospective evaluation of a novel computer aided detection algorithm for detection of neoplasia in patients with Inflammatory Bowel Disease

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Aims We are entering an era of Artificial Intelligence (AI) in endoscopy but Computer Aided Detection (CADe) of neoplasia in patients with inflammatory bowel disease (IBD) remains an area of unmet need. The aim of our study was to prospectively evaluate the efficacy of a novel CADe-IBD algorithm for detection of neoplasia in IBD.

Methods Patients with a diagnosis of IBD due to undergo a colonoscopy who were able to give informed consent were recruited. Patients had standard care with the use of virtual chromoendoscopy and mapping biopsies as per guidelines, with the addition of real-time use of CADe-IBD. Full withdrawal videos were recorded with two outputs (raw video and CADe-IBD). The CADe-IBD videos were then externally reviewed by 2 expert endoscopists to establish ground truth along with histology. Suspected lesions were either removed or biopsied.

Results 106 patients were recruited of which 94 patients were included in the study analysis. 51 % of patients were male. Median age was 58 (20-82). 76.3 % of patients had ulcerative colitis. Mean time from diagnosis to procedure was 18 years (range 1-60).

A total of 259 polyps were identified during colonoscopy of which 87.6 % (n = 227) were non-polypoid morphology (Paris Classification IIa, IIb, IIc). 24.8 % (n = 65) were neoplastic (adenoma with low or high grade dysplasia, or adenocarcinoma) on histology.

The overall sensitivity for lesion detection of the CADe-IBD algorithm was 92.6 %. Sensitivity sub-analysis was performed based on neoplastic histology (95.4 %), diminutive size (93.8 %), non-polypoid morphology (91.6 %) and background Mayo score of 0 (93.4 %), 1 (92.9 %) and 2/3 (88.8 %).

A total of 1056 non-targeted biopsies were taken during the procedures of which only 1 showed invisible low grade dysplasia which the endoscopist and CADe-IBD did not detect. 7 of the 8 targeted biopsies which showed neoplasia were detected by CADe-IBD. There was an average of 1.07 false positives per examination, most commonly from inflammation or folds.

Conclusions This is the first ever report of the efficacy of a dedicated CADe for IBD neoplasia. Our data demonstrates that the algorithm is very effective in detecting all lesions in IBD colon irrespective of their morphology, size, histology or background inflammation. The miss rate for true neoplasia is extremely low raising a real possibility of CADe replacing the current practice of chromoendoscopy based surveillance. This calls for a head-to-head comparison of these two techniques.

Conflicts of interest Professor Bhandari has recieved research grants or is on the advisory board for Fujifil, Boston Scientific, Olympus, Pentax, 3D Matrix, NEC (Japan) and Medtronic

MP006 Safety and Efficacy of Stem cell therapy in Ano perineal Crohn disease : Results of a prospective single centered study

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Aims The main objective of this study is to evaluate the feasibility and safety of injecting hematopoietic mesenchymal stem cells isolated in patients with CD with a follow up in the Mohamed VI University Hospital for the treatment of ano-perineal fistulas in Crohn's disease. Secondary objectives were to study treatment efficacy and impact on quality of life at week 12 and 48 post-treatment.

Methods A prospective observational study was conducted at the Mohamed VI University Hospital from April 2022 to November 2023. All patients over 18 years of age with perianal Crohn's disease were included. Hematopoietic stem cells were isolated from the bone marrow of the same patient in the regenerative medicine laboratory of the Mohamed VI University Hospital. A dose of 3X10- stem cells was administered with half the dose administered via the internal orifice and the other half via the external orifice of the fistula. The internal orifice was sutured. Rectoscopy and pelvic MRI prior and after the stem cell injection. Efficacy was defined by the absence of visible external orifice associated with no discharge on digital pressure and no abscess on MRI.

Results Twenty three patients were included. 73,9 of patients were male. Median age was 41,5 years. Median duration of anal disease was 5,7 years. Six patients had more than 2 external orifices at inclusion and only 4 had 1 external orifice. 3 patients had a seton placement with a median of 9 months prior to stem cell treatment. Fifteen patients (65 %) were on anti-TNF, including 3 on optimized therapy and 4 on combination therapy with a purine.

Median CDAI and PDAI at inclusion were 92.5 ± 38.8 and 6 ± 2.3 respectively. Six patients (26 %) reported side effects in the week following treatment. At weeks 12 and 48 respectively, 9/23 (39 %) and 12/23 (52 %) of patients had complete closure of all external fistula orifices. In the subgroup of 6 patients with more than 2 external orifices at inclusion, only one patient had not closed any of the orifices at week 12, while in half of the patients, one out of the orifices was closed. One patient recurred an anal abscess during follow-up and required drainage with seton placement. No other abscesses recurred during follow-up. Luminal disease activity reflected by CDAI remained low during follow-up: median CDAI = 76.2; The median perineal activity score (PDAI) was numerically lower at week 48 than at inclusion (3 vs 6).

Conclusions Treatment of ano-perineal fistulas in Crohn's disease by injection of hematopoietic stem cells produced locally in a specialized laboratory is feasible and safe. Clinical efficacy is similar to that described in reference studies, with 50 % closure at one year. It is associated with an improvement in quality of life and perineal activity scores.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP007 Endoscopic Submucosal Dissection for High-Risk Colorectal Colitis-Associated Neoplasia in Inflammatory Bowel Disease: a Real-World Multicenter Study

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Aims Inflammatory bowel disease (IBD) patients have a 2-3-fold increased risk of developing colorectal cancer. High-risk colorectal colitis-associated neoplasia (HR-CAN), including non-polypoid lesions and large non-pedunculated colon polyps, are often not amenable to conventional resection techniques. Aim of this study was to evaluate effectiveness and safety of endoscopic submucosal dissection (ESD) of HR-CANs.

Methods In this real-world, multicenter, retrospective study, we included consecutive IBD patients referred to nine Tertiary Italian Endoscopy Centers (January 2014 – April 2023) to undergo an ESD or a hybrid-ESD (hESD), for HR-CANs. The primary outcome was rate of en bloc, R0 resection and adverse events (AEs). The secondary outcome was rate of local recurrence, metachronous lesions, and post-dissection surgery.

Results 96 HR-CANs (89.6 % non-polypoid, 79.2 % left-side colon, mean size 34.8 mm ± 16.2 mm, 15.6 % invasive pit-pattern) in 91 patients with colonic IBD (58.2 % male, aged 60.8 ± 12.2 yrs, 83.4 % ulcerative colitis, disease duration of 183 ± 104 months, 14.3 % endoscopic activity) were included. ESD and hESD were performed in 82.3 % and 17.7 % of cases. The final histopathological diagnoses after dissection were serrated sessile lesions in 14.6 %, low-grade dysplasia in 32.3 %, high-grade dysplasia in 38.5 %, adenocarcinoma in 14.6 %. Overall, en bloc and R0 resection were achieved in 95.9 % and 85.4 % of cases. AEs occurred in 12.5 % of cases, all managed endoscopically and conservatively. After a mean follow-up of 23.4 months, local recurrence and metachronous lesions occurred each in 3.1 % (n = 3) of cases. Post-dissection surgery was required in 11.5 % (n = 11) of cases (7 for histopathology, 2 for recurrences, 2 for refractory IBD). At univariate analysis the left site was identified as a predictor of higher rate of en bloc resection (OR 0.07; 0.007-0.77; p = 0.02), while the female sex as a predictor of lower rate of AEs (OR 0.17; 0.03-0.81; p = 0.02). Further, the invasive pit pattern was associated with higher rate of post-dissection surgery (OR 6.25; 1.6-24.3; p = 0.008).

Conclusions Our findings showed that ESD of HR-CANs, when performed in Tertiary Endoscopy Centers, was effective and safe in patients with colonic IBD. However, further prospective studies including a long-term follow-up are still required to highlight the impact of ESD for IBD patients' dysplasia-free survival.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP008 IBD-Disk: A simple tool for correlating disability with mucosal healing and endoscopic activity in inflammatory bowel disease

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Aims The IBD-Disk is a validated 10-question, self-administered visual questionnaire used to assess the inflammatory bowel disease (IBD) related disability. It has been shown that IBD-Disk aligns effectively with the clinical activity reported by either the patient or the practitioner. Nevertheless, only a limited number of studies have investigated its associations with more objective activity scores, such as endoscopic findings.

Methods We conducted a monocentric, cross-sectional study from April to September 2023. All Crohn's Disease (CD) and ulcerative colitis (UC) patients who underwent a colonoscopy during follow-up or hospitalization were invited to complete the IBD-Disk questionnaire. Endoscopic activity in CD was evaluated via the "Simple Endoscopic Score for Crohn's Disease" (SES-CD), and in UC via the "Ulcerative Colitis Endoscopic Index of Severity" (UCEIS). A moderate-to-severe disability was defined by an overall IBD-Disk score ≥ 40.

Results We included 61 patients, 47.5 % were male and 60.7 % had CD. The mean age was 37.8 ± 11.7 years. The mean overall IBD score was 42.2 ± 22.5. "Education and work", "Energy" and "Emotions" scored the highest among all subscores (5.6 ± 3.2, 5.5 ± 3.0, 5.5 ± 2.9 respectively). Mucosal healing was observed in CD and UC at rates of 21.6 % and 16.7 %, respectively. A mild activity was noted in 29.7 % and 29.1 % of cases of CD and UC respectively. Moderate endoscopic activity was noted in 15 patients with CD and 7 patients with UC. Severe activity was observed in 3 and 6 patients with CD and UC, respectively. A significant difference was observed between the overall means of IBD-Disk in patients with mucosal healing compared to those with endoscopic activity (16.7 ± 13.5 vs 48.5 ± 19.8, p < 0.001). Furthermore, IBD-Disk was strongly correlated with the endoscopic activity levels of UCEIS and SES-CD (r = 0.687 and 0.534 respectively, p < 0.001). "Abdominal pain" showed the highest correlation with UCEIS and SES-CD (r = 0.678 and r = 0.561 respectively, p < 0.001). However, "Joint pain" showed the weakest correlation with UCEIS (r = 0.332, p < 0.001) and "Emotions" with SES-CD (r = 0.205, p < 0.001). A moderate-to-severe disability was observed in 52.5 % of our population (48.6 % for CD and 58.3 % for UC). Furthermore, Our study demonstrated that the endoscopic activity of IBD was significantly associated with moderate to severe disability (p = 0.001), independent of the underlying disease type (SES-CD: p = 0.042 and UCEIS: p = 0.020).

Conclusions Our study revealed that moderate-to-severe disability according to the IBD-Disk is significantly associated with endoscopic activity in IBD. Additionally, we demonstrated a strong correlation between the overall IBD-Disk score and the severity of the observed endoscopic lesions. This emphasizes the need to achieve mucosal healing in order to reduce the IBD-related disability.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP009 Utilizing Social Media Sentiment Analysis to Enhance Ulcerative Colitis Management Strategies

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Aims Social media platforms, internet applications that foster user interaction and content sharing, have increasingly been used for managing chronic diseases. Sentiment Analysis, a budding technology, helps understand people's views on medical conditions or their management. Our study seeks to understand physicians' perspectives on the revised AGA Clinical Practice Guidelines for managing moderate to severe Ulcerative Colitis.

Methods We used Twitter API, PHP, and RAI to collect Twitter, YouTube, Reddit, and Facebook responses. Sentiment analysis of tweets was performed using the VADER tool. Descriptive statistics were compiled, and t-tests compared positive and negative sentiments. Correlation analysis studied sentiment shifts over three years. Data analysis was performed using SPSS.

Results Between December 2015 and November 2022, we gathered 3,451,110 responses. From December 2015 to November 2019, we recorded 1,221,663 responses; from January 2020 to November 2022, we collected 2,229,447 responses. A shift in positive sentiment was observed concerning the guideline changes, with a rise from 51 % during 2015-2019 to 65 % between 2020-2022 (P = 0.012, 95 % CI).

Conclusions Our research indicates a rise in positive sentiment frequency towards the AGA's revised guidelines. This positivity is likely due to physicians appreciating the advantages of the new management guidelines. Conversely, negative sentiments may arise from potential side effects and increased complexity compared to the previous guidelines. This study underscores the ne-

cessity for physicians and relevant organizations to engage on social media actively, emphasizing the importance of up-to-date management guidelines.
Conflicts of interest Authors do not have any conflict of interest to disclose.

EUS-guided tissue acquisition and ablation for pancreatic lesions

25/04/2024, 08:30 – 09:30 Science Arena: Stage 1

MP010 EUS-guided radiofrequency and ethanol ablation of pancreatic insulinomas: a single-center experience

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Aims Insulinomas are the most frequent functional pancreatic neuroendocrine tumors (pNETs). While surgical resection remains still the gold standard treatment, endoscopic ultrasound (EUS)-guided ablation using either ethanol (EUS-EA) or radiofrequency (EUS-RFA) is a minimally invasive alternative treatment modality which induces lesion necrosis [1]. This study presents a single-center experience in treating pancreatic insulinomas < 2 cm with EUS-RFA or EUS-EA focusing on safety and efficacy.
Methods 275 patients with pNETs based on EUS-guided fine needle biopsy between 2011 and 2023 were retrospectively identified. 30 of these lesions were treated with EUS-RFA and 4 with EUS-EA. Out of these 34, nine were pancreatic insulinomas, which were included in the analysis.
Results 9 patients (7 female; mean age 49 years) with pancreatic insulinomas (mean lesion size 11mm; range 6-19mm) were treated with EUS-guided ablation. 7 of 9 patients underwent EUS-RFA and 2 patients EUS-EA due to a difficult location of the lesion. All EUS-RFA procedures (mean total ablation time for lesion 31s; range 17-69s) or EUS-EA (total ethanol volume, 1,4ml and 0,5ml) resulted in an immediate hypoglycemia relief after 1 treatment session. All patients remained asymptomatic (median follow-up 31 months; range, 11-47 months); 8 of 9 patients were followed-up radiologically in CT or/and EUS (median follow-up,15 months; range, 3-36 months) and 3 patients due to only partial radiological regression were qualified for subsequent ablation sessions (mean session number 1.5; range 1-3); The complete regression of the lesion was observed among 6 patients by imaging modalities (CT or/and EUS). Two patients had minor adverse events (AEs) (local hematoma treated conservatively and upper gastrointestinal bleeding managed endoscopically). No severe AEs occurred.
Conclusions Management of pancreatic insulinomas with EUS-RFA and EUS-EA seems to be effective and safe. However, further studies focusing on long-term response and recurrence are needed.
Conflicts of interest Authors do not have any conflict of interest to disclose.
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MP011 Strain ratio vs strain histogram for the elastographic evaluation of non-calcific chronic pancreatitis (CP): a prospective, single-centre, comparative study

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DOI 10.1055/s-0044-1783021

Aims Diagnosis of CP at early stages is a challenge due to the limited accuracy of the available diagnostic methods. Endoscopic ultrasound (EUS) guided strain elastography (SE) allows the evaluation of pancreatic fibrosis in this setting. Our study aimed to evaluate the diagnostic yield of the two quantification methods of SE, strain ratio (SR) and strain histogram (SH), for the diagnosis of non-calcific CP.
Methods Prospective, cross-sectional, single-centre, comparative study of diagnostic accuracy. Patients undergoing EUS-guided SE for the evaluation of non-calcific CP were included. Procedures were performed with linear echoendoscopes (Pentax 34J10 and 38J10, and Fujifilm 740UT) attached to the ultrasound system Arietta 850. The number of EUS criteria for CP was evaluated according to the Rosemont classification. An area of the pancreatic body was selected for the evaluation of SH. The same body area (area A) and a soft extrapancreatic area (area B) were selected for SR. Data are shown as percentages and mean (95 % CI), and analyzed using ANOVA and linear regression. The diagnostic accuracy of SR and SH was evaluated using the Rosemont classification as the reference method. STARD criteria for studies of diagnostic accuracy were followed.
Results 269 patients were included (mean age 49.5 years, range 17-85, 137 males). 41 patients (15.2 %) presented a normal pancreas, 106 (39.4 %) indeterminate findings for CP and 122 (45.4 %) suggestive findings for CP. SR was 2.05 (1.94-2.15), 3.02 (2.90-3.13), and 4.39 (4.22-4.56), and SH 144.95 (137.92-151.98), 104.01 (100.56-107.46), and 80.56 (77.89-83.23) in normal pancreas, indeterminate and suggestive of CP, respectively ($p < 0.0001$). SR > 2.42 showed a sensitivity of 92.1 % and a specificity of 87.5 % for the diagnosis of CP (ROC curve 0.968). SH < 116.1 showed a sensitivity of 88.2 % and a specificity of 97.5 % for the diagnosis of CP (ROC curve 0.970). The number of EUS criteria correlated with the degree of pancreatic fibrosis as evaluated by SR ($r = 0.754$, $p < 0.0001$) and SH ($r = 0.782$, $p < 0.0001$).
Conclusions The quantification of the degree of pancreatic fibrosis by SR and SH during pancreatic EUS-guided SE shows a high and similar diagnostic accuracy in patients with suspected CP.
Conflicts of interest Julio Iglesias-Garcia Advisor: Boston, Fujifilm, Pentax, Mediglobe

MP012 Accuracy of transabdominal ultrasound 2D Shear Wave Elastography compared to endoscopic ultrasound in the diagnosis of chronic pancreatitis

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Aims Diagnosis of chronic pancreatitis (CP) is still challenging, especially in early stages, when typical clinical signs and parenchymal changes are lacking. By now, evaluation of the pancreatic gland by endoscopic ultrasound (EUS) using Rosemont criteria (RC) is the gold-standard, although it is limited by invasiveness, cost and suboptimal accuracy.
Therefore, it is of crucial interest to develop non expensive, widely applicable tests for the diagnosis of CP. Recently the Gemelli chronic pancreatitis ultrasound score (USCP) has been developed to fill in this gap. Comparable to liver stiffness measurement, transabdominal ultrasound with 2D shear wave elastography (2D SWE) could represent an additional alternative for the diagnosis of CP.
Methods We conducted a single center, prospective, case control study where EUS with Rosemont criteria defined patient cohorts with chronic pancreatitis or absence of parenchymal changes. Patients with and without CP subsequent-

ly underwent transabdominal ultrasound with evaluation of the pancreas using 2D SWE (in m/s) and characterization by the USCP score. All examinations were performed with the LogiqE10 (GE Healthcare). Primary outcome was the agreement between the different evaluation techniques, most importantly between Rosemont score and 2D SWE. Secondary outcome was the evaluation of a cut off value of SWE differentiating values in CP from normal values.

Results A total of 50 patients with CP and 28 without CP were included between may and October 2023. Median SWE were statistically different between groups (no-CP group 1.45m/s; IQR 1.34-1.60 and CP-group 1.7m/s; IQR 1.58-1.89; p < 0.0001). Patients with RC criteria indeterminate for CP had significantly lower SWE values compared to patients with RC criteria suggestive/consistent with CP (Median 1.65m/s, IQR 1.50-1.71vs. 1.78m/s, IQR 1.63-1.92, p = 0.02). Median USCP Score was significantly different between groups (no CP 0-1 points, with CP 2-6 points, p < 0.0001). SWE values were not correlated with age, BMI, HbA1c or stool elastase levels, but correlated significantly with USCP score (p = 0.002) and RC (p = 0.0001). USCP Score significantly correlated with BMI (p = 0.011), stool elastase levels (p = 0.002), HbA1c (p = 0.002) as well as RC (p < 0.0001). A cut off SWE value of < 1.4m/s was found to rule out chronic pancreatitis with a sensitivity of 97.6 % (specificity 56 %) and a SWE cut off > 1.6ms/s to diagnose chronic pancreatitis with a sensitivity of 85.3 % (specificity 80 %).

Conclusions Transabdominal ultrasound evaluation of the pancreas with 2D SWE is a promising, widely applicable and unexpensive tool for the diagnosis of chronic pancreatitis. More studies with larger cohorts confirming the results are necessary.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP013 When ROSE is not possible: Evaluating the diagnostic yield of > 4mm tissue specimen with macroscopi c onsite evaluation. 22G EUS-FNB Acquire needle experience

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Aims Endoscopic ultrasound-guided fine-needle biopsy (EUS-FNB) is a technique used for tissue acquisition providing the higher diagnostic accuracy for solid pancreatic and gastrointestinal lesions. Rapid onsite evaluation (ROSE) is the us eful firsthand diagnostic technique. Because of its expensive technical requirement, macroscopic onsite evaluation (MOSE) is a desired method used to assess the visual characteristics/features of a sample/specimen for positive hist opathological output. However, adequate size of the tissue is the requirement. What tissue size should we have for histopathological diagnosis, answer is debatable. Literature showed variability in tissue size with the favor towards > 4mm tissue size. Therefore, the **aim** of the study is to evaluate the > 4mm of tissue size for the adequacy of cellbl ock and histopathological diagnostic output.

Methods This is a retrospective study, conducted at the gastroenterology-department of Liaquat National Hospital, Karachi, P akistan. Data collection duration was Jan-2019 to July-2023 after asking institutional permission. It included all cons ecutive data of patient's tissue size, ROSE, and histopathological output of cellblock, obtained from patient's gastroi ntestinal/pancreatic lesions, and recorded in departmental Electronic Medical Record (EMR). Abandoned procedures data were excluded. Data was entered and analyzed using SPSS version 25. ROC curve was plotted to determine th e performance of tissue size in prediction of positive histopathologic/cell block and AUC was calculated. Sensitivity,s pecificity,positive and negative predictive values were computed at threshold of tissue size of > 4mm.

Results Total 122 EUS-FNB data (69.9 %, 84/122 malignant) was collected from EMR. Median age 60 years (IQR = 48-67), m ales (59.8 %) dominance, pancreas common biopsy site (73.8 %). ROSE was 94 % (79/84) malignant, Histopatholo-gi cal/Cellblocks were Malignant in 93 % (78/84) lesion. Tissue size of > 4mm was malignant in 82 % (64/78) cellblocks. ROC curv, for > 4mm tissue size and taking malignant histopathology/cellblock as gold standard, showed an AUC of 0.85 with statistical significance. At threshold of 4mm tissue size and above, sensitivity, specificity were 82 %, 82 %, while positive predictive and negative predictive value were 89 % and 72 % respectively. [1–4]

Conclusions 4mm and above tissue size can be useful for the predictability of higher histopathological (Cellblock) diagnostic outp ut in gastrointestinal and pancreatic solid lesions.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP014 Pancreatic cystic neoplasm prevalence in liver transplantation candidates and post-transplantation outcome

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Aims Intraductal papillary mucinous neoplasm (IPMN) inherently carries a risk of degeneration, and little is known about its progression in patients undergoing immunosuppressive therapy (IS) after liver transplantation (LT). The aim of the study was to assess the prevalence and the risk of IPMN progression in transplanted patients.

Methods We retrospectively enrolled patients with IPMN who underwent LT between January 2018 and December 2022. IPMN diagnosis relied on cross-sectional imaging before LT. Follow-up was scheduled with US semiannually in the first year and then annually or with CT/RMN according to clinical needs. Follow-up ended on October 31st, 2023.

Results During the study period, 760 LTs were performed, and 20 patients presented with IPMN (2.6 %). Median age 56 [IQR, 52-63] years, 50 % males, BMI 23 [21-27] kg/m^2, 50 % with alcoholic cirrhosis, median MELD score 13 [10-20], 50 % with hepatocellular carcinoma (HCC). The median pre-LT Ca19.9 was 35 kUI/L [13-70]. Diagnosis of IPMN was confirmed with CT/RMN 0.9 [0.5-3] years before LT. All patients exhibited branch-duct IPMN (IPMN-BD), with 14/20 (70 %) having more than two cysts and 17/20 (85 %) involving the head of the pancreas, with a median cyst diameter of 12 [7-18] mm. Two patients (10 %) reported worrisome cystic features (> 45 mm and growth > 5 mm in 2 years, respectively) and underwent endoscopic ultrasound. IS was based on Tacrolimus ± Everolimus (30 % of patients) according to explant histology. After a median time of 1.5 [0.9-2.6] years since LT, 14/20 (70 %) patients had CT/RMN for HCC surveillance or suspected biliary injury and the median post-LT IPMN size was 12 [9-18] mm, with no significant differences compared to pre-LT values (*paired p = 0.32*). After a median follow-up of 2.2 [1.1-4.3] years, 19/20 (95 %) patients are alive (1 died due to HCC recurrence). Moreover, none of the patients developed high-risk signs or pancreatic malignancy.

Conclusions Our cohort demonstrated that low risk IPMN-BD do not increase their potential of malignancy during immunosuppressive therapy after LT. Consequently, this type of IPMN seems to require no special management before and after transplantation; however longer follow-up may be helpful to confirm the relative low risk of degeneration of IPMN in LT recipients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP015 A basal-like pancreatic cancer molecular subtype can be identified on EUS-acquired tissue and is associated to current smoking, lower Ca19.9 expression and worse prognosis

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Aims Two pancreatic cancer(PDAC) transcriptome subtypes have been defined (basal-like and classical) that seem related to different prognosis. Nevertheless, RNA-extraction from pancreatic tissue is cumbersome and has been performed mainly on surgical samples, representative of < 20 % of cases. Most PDAC patients undergo Endoscopic-UltraSound(EUS)-guided tissue acquisition(EUS-TA), but RNA-sequencing on such samples has been rarely performed or limited to paraffin-embedded samples with low RNA quality. Furthermore, the association between molecular subtype and patient-related factors such as BMI, smoking, drug use, tumor location and Ca19.9 expression is uninvestigated. Our aim was to correlate PDAC molecular subtypes identified by RNA-sequencing on EUS-TA samples with prognosis and evaluate whether they are associated to patients' factors.

Methods Consecutive patients with non-metastatic PDAC who underwent EUS-TA at diagnosis were enrolled in a prospective biobanking study with snap-frozen samples. Those with adequate quantity and quality of RNA underwent RNA-sequencing with Illumina Nova-Seq. PURIST score was applied to define transcriptional subtype and association with patient-related factors and overall survival (OS) investigated. Categorical and continuous variables were investigated by Fisher's exact test or Mann-Whitney test, correlation analyses with Pearson test.

Results In 44/45 samples, RNA was of quantity and integrity allowing successful RNA-sequencing. According with PURIST score 3 patients were classified as basal-like (6.8 %) and the other 41 as classical. Basal-like patients had a significantly lower median OS compared to classical (3 vs 16 months; p = 0.01) and a basal-like phenotype was associated to increased risk of death (HR 7.79; p = 0.006). PURIST score also significantly correlated inversely with OS (r = -0.6; p = 0.0007). Concerning patients' variables, patients with basal-like tumors were more frequently current smokers (66.6 % vs 12.2 %; p = 0.05) and had a lower baseline Ca19.9 (80 vs 1243 IU/ml; p = 0.001). No differences were found concerning age, gender, BMI, diabetes history, disease stage, tumor location, use of aspirin or statins.

Conclusions Molecular subtype identification on EUS-TA PDAC cases at diagnosis is feasible and a basal-like phenotype is rare but associated to worse prognosis. Furthermore, current smoking seems to be associated to a more aggressive molecular subtype, which in turn does not seem to express a high Ca19.9. Further studies on a larger cohort are needed to confirm such findings.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP016 Diagnosis of pancreatic solid lesions by ultrasound endoscopy fine-needle biopsy with Franseen needles: macroscopic on-site (MOSE) versus rapid on-site (ROSE) evaluation. Is the pathologist necessary in the endoscopy suite?

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Aims The evaluation of biopsy samples obtained with fine-needle biopsy (FNB-EUS) using Franseen needles by ultrasound endoscopy by endoscopist (Macroscopic On-Site Evaluation: MOSE) improves the diagnostic accuracy of pancreatic solid lesions. The achievement of macroscopic visible core (MVC) > 4mm has a high diagnostic accuracy with MOSE.

Aim: To compare diagnostic accuracy of Rapid On-Site Evaluation (ROSE) and MOSE by endoscopist in pancreatic solid lesions.

Methods Prospective bicentric study, consecutive recruitment of patients with pancreatic solid lesions in 2 general hospitals (MOSE was performed in hospital A and ROSE in hospital B). Franseen needles were used (Adquire, Boston Scientific). We evaluated: 1) diagnostic achievement and accuracy (including sensitivity, specificity, positive predictive value and negative predictive value) in solid pancreatic lesions; 2) MVC > 4mm acquisition; and 3) number of needle passes needed with MOSE vs ROSE.

Results A total of 132 patients were included (33 women, 68 men, median age 68,2 ± 1,025). MOSE was performed in 90 (68.2 %) and ROSE in 42 (31.8 %); in 110 (83.3 %) malign and 22 (16.7 %) benign pancreatic solid lesions. Correct diagnosis by EUS-FNB was achieved in 89.4 % patients (with MOSE 88.8 %; and ROSE 92.9 %; p = 0.54). Sensitivity was 100 %, specificity 89 %, PPV 81.3 % and NPV 100 % (with MOSE: sensitivity 100 %, specificity 87.5 %, PPV 88.8 % and NPV 100 %; with ROSE: sensitivity 100 %, specificity 92.1 %, PPV 92.6 % and NPV 100 %). MVC > 4mm was obtained in 72.7 % (71.1 % in MOSE, 76.2 % in ROSE, p = 0.67). There were no statistically significant differences in diagnosis achievement between MVC > 4mm and < 4mm (88.6 % in MOSE and 90.6 % in ROSE, p = 0.74). No differences in number of passes necessary to achieve diagnosis was found between MOSE and ROSE.

Conclusions Evaluation of biopsy simples of pancreatic solid lesions obtained by FNB-EUS with Franseen needles by endoscopist (MOSE) has a diagnostic accuracy similar to ROSE, making unnecessary the presence of a pathologist in the endoscopy suite.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP017 Impact of Multidisciplinary Discussion on Pancreatic Neuroendocrine Tumors (pNEN), experience of a tertiary center

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Aims pNENs are rare neoplasms with rapidly increasing incidence in last years. Their management implies using considerable resources. Multidisciplinary discussion of tumors has become a cornerstone in clinical oncology practice even though there are no studies demonstrating the clinical benefit.

Aim of present study is to evaluate whether the introduction of systematic discussion of patients with pNEN in Multidisciplinary Meeting (MM) has changed the management of this type of patients.

Methods This is a retrospective single-center study reporting the experience of AUSL of Bologna. Patients were dividend in 2 groups (BOARD and NO-BOARD). The following data were evaluated: rate of surgery, post-surgical recurrence, reinterventions, complications, performance of complete preoperative staging. Finally, we evaluated whether the multidisciplinary discussion resulted in an improvement in terms of adherence to major international guidelines.

Results 128 patients were enrolled between 2004 and 2023 (75 men and 53 women, mean age 61.12 years) of whom 116 were well-differentiated lesions. All post-2018 diagnoses were discussed at the MM, therefore 55 patients were allocated in BOARD group vs 73 in NO-BOARD. Populations were comparable for sex (36.4 % females vs 45.2 % in BOARD vs NO-BOARD), mean age (60.3 vs 61.7 years), mean ASA score (2.66 vs 2.71), Charlson-Comorbidity-Index (CCI < 6 80 % vs 79.45 %), rate of functioning tumors (7.3 % vs 16.4 %, p = 0.2) and pre/postoperative grading. EUS with and without FNA/FNB was used more in the BOARD vs NO-BOARD (EUS 90.9 % vs 71.2 %, p = 0.005, EUS with FNA/FNB 89.1 % vs 65.8 %, p = 0.002). Tumor size was significantly larger in BOARD (2.65 vs 2.38 cm, p = 0.03). The rate of surgery was significantly higher in NO-BOARD (78 % vs 62 %, p = 0.045). There was no difference in terms of post-operative complications (49.1 vs 37 %). During follow-up, mortality in the two groups was comparable (9.1 % vs 9.6 %), with only 5 tumor-related deaths. Recurrence occurred in 5.3 % in BOARD vs 8.2 % in NO-BOARD (p = 0.4), and re-intervention occurred in 3.6 % vs 6.8 % (p = 0.35).

Adherence to guidelines was performed by dividing each arm in adhering or not adhering patients and considering guidelines available at the date of diagnosis. No significant different was observed in terms of adherence rate (BOARD vs NO-BOARD adherents 93 % vs 88 %, p = 0.9).

Conclusions Systematic multidisciplinary discussion does not result in significant clinical impact in terms of surgical complications, recurrences, and reinterventions. A more selective approach in multidisciplinary discussion, only for complex or doubtful pictures, would be worth considering.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP018 A novel device for cytological sampling of pancreatic cysts: an animal randomized control trial

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Aims Current endoscopic ultrasound (EUS) is suboptimal in the assessment of pancreatic cystic lesions (PCLs). We developed a new through-the needle loop device, to improve the cellular yield, and thereby sensitivity, of EUS fine needle aspiration (EUS-FNA) of pancreatic cysts.

In this in-vivo animal randomized controlled trial (RCT), we aim to test the cell yield and safety profile of this through the needle loop device using artificial cysts, comparing it with the standard procedure, EUS-FNA.

Methods This was an in-vivo randomized controlled trial in pigs using artificial cysts. In one group, the new device was deployed through a 22G EUS-FNA needle into the cysts. In the control group, cystic punction was performed with standard EUS-FNA. New devices were visually inspected post-procedure. Cytological assessment, cell counting, and hemoglobin analysis were performed in samples from both groups.

Results Artificial cysts (n = 114) were punctured in six pigs, 57 in each group. Neither adverse events nor significant device malfunction occurred during brushing with the new loop device. Samples collected with the loop had non-detectable concentrations of hemoglobin in 72 % (41/57) of cases, and 26 % (16/57) had less than 0.6 g/dL, with no significant difference to the controls (p = 0.32). There was significantly increased cell counts with the new device (11.7 × median difference, p < .0001). Cytological smears were diagnostic in 77 % of cases in the device group, while 54 % in the control group (p = 0.01, Fisher's exact test; p = 0.006, Chi-square test).

Conclusions This novel loop device appears to be safe, causing neither significant bleeding nor device malfunction. Samples obtained with the loop brush were suitable for cytological analysis and showed significantly higher cell yield than controls. Further clinical studies are warranted.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP019 Eyes wide open: MOSE Performance in EUS FNB

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DOI 10.1055/s-0044-1783029

Aims Endoscopic ultrasound fine needle biopsy (EUS-FNB) is the preferred method for sampling solid lesions in the digestive wall or adjacent organs. Strategies to enhance its efficacy have been explored, with recent studies indicating that Macroscopic On-Site Evaluation (MOSE) by an echoendoscopist can be comparable to Rapid On-site Evaluation (ROSE) by an anatomopathologist. This study aims to assess the performance of MOSE in EUS-FNB, specifically using the 22G Franseen needle.

Methods Single-center retrospective cohort study, including all consecutive patients who underwent EUS-FNB with a 22G Franseen needle to characterize solid lesions, with a standardized description of MOSE, between April 2021 and September 2023. The performance of MOSE was evaluated, with diagnostic yield being considered when obtaining of diagnostic cytology, and diagnostic accuracy as the quotient between correctly diagnosed cases and the total number of cases. The final diagnosis was made based on the pathology of the surgical specimen or clinical/imaging evolution. Sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) were calculated considering malignant and benign lesions as positive and negative results, respectively.

Results 57 patients were included, with 53 % men, and 60 punctures were performed (57 % pancreatic, 25 % subepithelial, 3 % hepatic/biliary, 3 % lymph node, 3 % adrenal, 8 % perirectal). Median lesion size was 30 mm (inter-quartile range (IQR) 20-40 mm), with a median of 3 (IQR 2-4) passes. Echoendoscopist detected filamentary material in 100 % of the exams. White fragments were obtained in 91 % of exams, with a maximum median dimension of 5 mm (IQR 3-10 mm). There was a diagnostic yield in 92 % of the exams, with a diagnostic accuracy of 90 %. Sensitivity, specificity, PPV and NPV were, respectively, 97 %, 100 %, 100 % and 94 %. Self-limited hemorrhage was found in 1 of the exams. Fragments ≥ 4 mm were associated with a higher diagnostic yield (p = 0.01), unlike the color of the fragment.

Conclusions This study suggests that MOSE utilization during EUS-FNB is associated with a substantial diagnostic yield. Fragments ≥ 4 mm are associated with a high likelihood of obtaining a diagnostic cytology, and ensuring high diagnostic accuracy, sensitivity, specificity, PPV and NPV.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Thinking Outside the UGI Box – Endoscopic Innovations and Fresh Ideas

25/04/2024, 10:00 – 11:00 Science Arena: Stage 2

MP020V Simple is Better: Endoscopic Treatment of Giant Gastric Bezoar

Authors I. Roa Esparza[1], M. Carhuas Canchán[1], C. Ibarra Ponce De León[1], M. Dura Gil[1], A. Bausela Sainz[1], D. Quiñones Diaz[1], J. A. Viveros Goméz[1], I. Casado Morentín[1]
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DOI 10.1055/s-0044-1783030

Abstract Text Managing large gastric bezoars remains a challenge in endoscopy, despite advanced tools. This case features a 66-year-old male with a resistant 12 cm bezoar. After unsuccessful attempts with various methods, an innovative approach was pursued. Initially, underwater Holmium:YAG lithotripsy was considered, gradually fragmenting the bezoar while preventing thermal damage through continuous water irrigation. Due to the extended procedure duration, a second-stage approach was adopted, incorporating a Jagwire guide loop through a polypectomy snare catheter. This technique successfully eliminated the bezoar over two sessions spaced two months apart. We report our experience, incorporating a catheter to enhance visibility and maneuverability. Due to its accessibility and reduced risk of complications, it may become the preferred choice for giant bezoar treatment [1–3].

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/cdf3e86f-a7d4-4a5e-96aa-19c04a537f63/Uploads/13821_ESGE-bezoar.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP021V Complete endoscopic debridement combined with partial gastric wall resection successfully treated refractory esophagogastric anastomotic fistula: First clinical practice

Authors Y. Li[1], Q. Zheng[1], J. Zhang[1], B. Liu[1]
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DOI 10.1055/s-0044-1783031

Abstract Text A 59-year-old male occurred esophagogastric anastomotic fistula after radical resection of cardia adenocarcinoma. Symptoms didn't improve and he can't eat orally after 6 months treatment in other department. We performed two times endoscopic debridement of necrotic tissue in fistula combined with gastric wall full-thickness resection. On the third day after the treatment, the patient was started on a through oral fluid diet. One month endoscopy follow-up saw the wound cleaning, the healing process was good, and the patient started a normal diet. 18 months later, endoscopy showed fistula had healed completely. His weight increased 9kg during follow up. [1–4]

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/cf196412-863d-4e05-89fa-87bf6a673014/Uploads/13821_Complete_endoscopic%20debridement%20combined%20with%20partial%20gastric%20w....mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP022V EUS-guided rendezvous in gastric bypass: a double-edged transgastric ERCP

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DOI 10.1055/s-0044-1783032

Abstract Text Introduction: EUS-directed trans-Gastric Intervention (EDGI) via LAMS into the excluded stomach has not yet been reported for biliary rendezvous.

Case: Symptomatic CBD stone in Roux-en-Y gastric bypass female. A 20x10 mm LAMS is placed for single-session EDGE. Wire-guided cannulation of a small papilla fails. EUS-rendezvous is chosen instead of pre-cut in a high-risk patient with hostile papillary anatomy. Duodenoscope is exchanged for the echoendoscope. CBD is 19G-punctured and guidewire passed antegrade across the papilla. Sphincterotomy with a home-made mono-rail sphincterotome with the echoendoscope allows wireless scope exchange, for a final balloon sweep with the duodenoscope.

Comment: In hostile duodenal anatomy, pre-cut may be avoided by rendezvous, even in EDGE.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/d03f04fa-bb8f-4179-9fe9-48d163024a65/Uploads/13821_001496.mov

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP023 The T-piece pull technique: A simple and effective method for treating buried bumper syndrome

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DOI 10.1055/s-0044-1783033

Aims Percutaneous endoscopic gastrostomy (PEG) is an established route for enteral nutrition. Although rare, buried bumper syndrome (BBS) remains an important and challenging complication to manage. Gastric mucosal overgrowth over the internal bumper results in obstruction of the internal stoma and impedes delivery of nutritional feeds via the PEG tube. Many different techniques for treating BBS have been described, but these have largely been limited to case reports or small case series. This study aimed to determine the efficacy and safety of the T-piece pull technique

Methods A prospectively collected database for consecutive patient treated for BBS with the T-piece pull technique at a tertiary referral centre from Sep-

tember 2016 to September 2023 was analysed. In each patient, the buried bumper was first assessed endoscopically and the morphology was described using the Paris classification. The PEG tube was cut close to the abdominal wall and a biopsy forceps was passed through the PEG tube into the stomach under endoscopic visualisation. A 10mm snare was inserted through the working channel of the gastroscope, opened and then grabbed by the biopsy forceps before being pulled out of the PEG tube. The snare was closed around a 2cm cut piece of PEG tubing to create a T-piece. The snare was pulled back firmly through the PEG tube until the buried bumper was removed. The primary outcome was the rate of technical success. Secondary outcomes included buried bumper morphology, procedure time and the rate of adverse events

Results A total of 41 cases (25 female) of BBS were treated with the T-piece pull technique, with a mean age of 45 (range 19-78). The buried bumper morphology was Paris Is in 15, IIa in 20, IIa + IIc in 3, and IIb in 3 cases. The median procedure time was 18 minutes (range 13-45). Technical success was achieved in 93 % of cases. In all the three failed procedures, the buried bumper showed a IIb morphology. Of these three, two underwent surgery while the other was left in-situ. Two complications were recorded, one case of non-specific abdominal pain and one episode of sepsis

Conclusions This is the largest study evaluating the T-piece pull technique for BBS to date, in which we demonstrate that this is a simple, effective, minimally invasive, cheap and safe procedure, utilising equipment that is available in an endoscopy unit. The Paris morphology is a simple and useful predictor of procedural success, and alternative techniques may be required for buried bumpers with IIb morphology

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP024 Upper gastrointestinal endoscopy combined with gastric juice analysis by the medical device Endofaster for real-time assessment of H. pylori infection and molecular-based antibiotic resistance

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DOI 10.1055/s-0044-1783034

Aims The high prevalence of antibiotic resistance of *Helicobacter pylori* (*H. pylori*) demands for antibiotic susceptibility testing (AST) to optimize treatment selection. The aim of our study was to evaluate the accuracy of a gastric juice-based molecular AST (GM-AST) concerning clarithromycin and levofloxacin in a cohort of *H. pylori*-positive patients identified during diagnostic gastroscopy by use of the medical device Endofaster.

Methods Patients scheduled for routine upper GI endoscopy (UGE) between February 2021 and August 2023 were prospectively recruited. Gastric juice analysis was performed by Endofaster at the beginning of endoscopic procedure and instant diagnosis of *H. pylori* was made based on real-time ammonium measurement using a cut-off > 62 ppm/ml to indicate the presence of *H. pylori*. In case of intraprocedural *H. pylori*-detection by rapid urease test and/or Endofaster analysis, gastric juice and biopsies were collected for GM-AST and for culture-based AST (C-AST) by conventional E-test, respectively. Gastric biopsies were assessed according to the updated Sydney system. Sanger sequencing of the 23S rRNA and gyrase A genes from *H. pylori* was performed using gastric juice samples to detect polymorphisms associated with resistance to macrolides and fluoroquinolones. Test accuracy of GM-AST was determined using C-AST as the gold standard.

Results 461 consecutive patients were included in the study and diagnosis of *H. pylori* infection was made during the UGE in 178 (40.4 %) individuals. Paired gastric biopsies and fluids for AST were available from 152 *H. pylori*-positive patients (66/86 male/female; mean age, 49.3 ± 14.4 years). According to C-AST the resistance rates were 15.1 % (23/152) for clarithromycin and 18.4 % (28/152) for levofloxacin. C-AST and GM-AST results showed a very high level of concordance for clarithromycin (κ-value = 0.86) and for levofloxacin (κ-value = 0.81) susceptibility, respectively. The sensitivity, specificity and accuracy of GM-AST for resistance detection were 78 %, 100 %, and 97 % for clarithromycin and 75 %, 99 % and 95 % for levofloxacin, respectively.

Conclusions Molecular AST performed in gastric aspirate is highly accurate in the detection of *H. pylori* resistance to clarithromycin and levofloxacin and is comparable to conventional phenotypic AST. GM-AST in conjunction with the intraprocedural diagnosis of *H. pylori* is a valid tool for selecting tailored eradication regimens for the individual patient.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP025 Over-the-scope-clips are safe and effective in the closure of gastrocutaneous fistulas

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DOI 10.1055/s-0044-1783035

Aims A rare complication following the removal of a percutaneous endoscopic gastrostomy (PEG) tube is the formation of a gastocutaneous fistula (GF). Although a number of techniques have been described for managing GF, to date there is very little data on the efficacy of over-the-scope clips in treating GF. In this study we aimed to determine the efficacy and safety of over-the-scope clip in the treatment of persistent GF.

Methods A prospectively collected database for consecutive patients treated at a large teriary centre with over-the-scope clip for persistent GF, from September 2016 up until September 2023, was analysed. In all patients the GF tract was first treated with a wire brush before deployment of the over-the-scope clip. Data collected included patient demographics, PEG dwell time before removal, technical success (defined by succesful clip deployment and fistula closure), procedure-related complications and 30 and 90-day clinical success rate, defined as no clinical evidence of a patent fistula on follow-up.

Results Over a 7 year period, a total of 31 GF cases (18 male) were treated with over-the-scope clip. Mean age was 49. Prior to removal, the median PEG dwell time was 16 months. Median procedure time was 14 minutes (range 9-35). Technical success was recorded in 97 % of cases. In 3 procedures, ancillary techniques were required. One case was complicated by intraprocedural bleeding, but succesful endoscopic haemostasis was achieved. The clinical success rate at both 30 days and 90 days was 94 %, with only two fistulas recurring.

Conclusions This is the largest observational study in the literature to date on the use of over-the-scope clip for the treatment of GF. This study shows that over-the-scope clip is a quick, safe and effective technique to achieve closure of persistent GF.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP026 Analyzing Racial Differences In Gastric Cancer Outcomes Post-Weight Loss Surgery: Breslow Depth Methodology

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DOI 10.1055/s-0044-1783036

Aims Bariatric surgery effectively treats obesity, improving metabolic health. However, the influence of race on gastric cancer incidence post-surgery remains unexplored. Given gastric cancer's prevalence and its link to obesity, studying racial impact is essential. This study aims to determine whether race influences the

risk of gastric cancer in post-bariatric surgery patients. Uncovering this relationship could be pivotal in optimizing patient outcomes and refining post-surgery care.

Methods Our retrospective study analyzed patients undergoing bariatric surgery at our hospital from 2009-2022. We gathered data on comorbidities, insurance status, surgical procedures, colonoscopy and pathology reports, and baseline characteristics using ICD and CPT codes. Patients who developed gastric cancer post-surgery were classified by sex, race, and tumor location. Propensity score matching balanced baseline characteristics. We applied Kaplan Meier methods to ascertain Gastric cancer timing among races and used odds ratios to identify independent factors influencing study outcomes

Results From 2009 to 2022, our institution conducted 960 bariatric surgeries. Of these, 1 % (81) developed gastric cancer post-surgery, usually detected at about 59.98 ± 15.2 months. The average age of the study participants was around 51.98 ± 11.8, with 64.2 % females. Racial distribution included 28.39 % African Americans, 23.4 % whites, 21 % Asians, and 18 % Hispanics. Among these, African Americans developed cancer in a significantly shorter timeframe than other races (Breslow: 10.836, p = 0.013); another critical finding was the elevated risk of cancer incidence among the African Americans belonging to the lower income quartile (OR:2.15, P = 0.033), which underlines the role of socioeconomic factors in health

Conclusions This study fills a gap in understanding the racial impact on gastric cancer incidence post-bariatric surgery. Results from our 2009-2022 retrospective analysis of 960 surgeries revealed a 1 % gastric cancer incidence, typically detected around 60 months post-surgery. Notably, African Americans developed cancer in a significantly shorter timeframe compared to other races, and lower-income African Americans faced a heightened risk. These findings underscore the importance of racial and socioeconomic factors in optimizing post-surgery care. Further research could help devise strategies to mitigate these risks, enhancing health outcomes for diverse patient populations.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP027 Use of Artificial Intelligence to assess the quality of cleanliness of esophagogastroduodenoscopy

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DOI 10.1055/s-0044-1783037

Aims A detailed examination in optimal conditions during upper gastrointestinal endoscopy is essential to identify premalignant lesions and early-stage neoplasms. Currently, there are no validated scales to evaluate the cleanliness during esophagogastroduodenoscopy. The objective of this study was to evaluate the potential of Artificial Intelligence (AI) to automatically determine the quality of cleanliness during esophagogastroduodenoscopy

Methods The dataset used contains 125 HD white-light endoscopy images using OLYMPUS EXERA. Experts selected images and their degree of cleanliness was determined using the Barcelona scale (scores from 0 to 2 in esophagus, fundus, body, antrum, duodenum; maximum total core of 10): 43 images (34.44 %), 36 (28.8 %) and 46 (36.8 %) images were classified as 0, 1 and 2, respectively, by a panel of endoscopists. The AI system was built adapting EfficientNetv2 neural network architecture; 94 images (75 %) were used for the training stage and the rest (31, 25 %) for validation, ensuring adequate distribution of the different classes in the train and validation sets. Due to the small size of the dataset, 4-fold cross-validation was used in the training and validation stages (in each fold an image cannot be in both train and validation sets). Usual image classification metrics were used to represent the performance of the AI system

Results The AI system determined accurately the quality of cleanliness in 92 of 125 images (73.85 %). Regarding performance per class, the results were better for class 0 (PPV: 76.23 %, Sensitivity: 76.22 %, Specificity: 87.40 % and NPV: 87.80 %) and class 2 (PPV: 83.51 %, Sensitivity: 88.22 %, Specificity: 89.90 % and NPV: 92.90 %) than for class 1 (PPV: 56.40 %, Sensitivity: 51.70 %, Specificity: 83.91 % and NPV: 81.12 %). We observed a high level of overlap between classes 0 and 1. Considering classes 0 and 1 together, the system was able to classify correctly 121 of 125 images (Accuracy: 96.97 %). Performance characteristics for the aggregated class (0 + 1) were: PPV 96.06 %, Sensitivity 98.83 %, Specificity 94.38 %, and NPV 98.32 %. In all cases, the AI system provided its output in < 20 milliseconds, achieving real-time performance. [1]

Conclusions AI has the potential to assist clinicians to assess the quality of cleanliness of esophagogastroduodenoscopy during in-vivo explorations, providing an accurate output in real-time. Nevertheless, the size and distribution of the samples in the dataset limits the performance that the system can achieve. Future work should involve the acquisition and annotation of new images to improve the performance of AI systems

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP028 The antrum mucosal patterns on chromoendoscopy associated with Helicobacter pylori infection: a real-life preliminary single-center study

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DOI 10.1055/s-0044-1783038

Aims Defining *Helicobacter pylori*(*Hp*) infection status is the first step for eradication therapy and evaluation of risk for gastric cancer. Virtual chromoendoscopy(CE), namely Narrow Band Imaging and Blue Light Imaging, is a worthwhile tool able to not only detect gastric preneoplastic conditions but also to predict *Hp* infection. Most of the evidence comes from the Eastern experience. The evaluation of antrum mucosal patterns(MPs) on CE has not been assessed so far in Western Countries. This study aimed to investigate the association of antrum MPs on CE with *Hp* infection and to explore the diagnostic performance of CE in defining the antrum MPs related to the infection.

Methods A cross-sectional study was conducted on consecutive adult patients undergoing gastroscopy in a University Hospital. Antrum MPs, were assessed by CE evaluation of the greater curvature and classified into Normal, and Spotty, Cracked, Mottled MPs [1]. Biopsy protocol and histological evaluation were performed according to updated-Sydney-system. The main features of patients with normal antrum MP and with spotty, cracked, and mottled MPs were compared through univariate analysis.

Results A total of 62[(male 40.3 %, median-age 56 years(18-86)] patients were included. The normal, spotty, cracked, and mottled MPs were reported in 51.6 %, 11.3 %, 27.4 %, and 9.7 % of patients,respectively. *Hp*-related gastritis and referred previous *Hp* infection were significantly more frequent in patients with spotty and cracked MP, respectively, compared to normal MP patients [(85.7 % vs 3.1 %, p < 0.0001), and (76.5 % vs 3.1 %, p < 0.0001,respectively)]. Referred previous *Hp* infection and antrum intestinal metaplasia(IM) were significantly more frequent in patients with mottled MP compared to normal MP patients[(50.0 % vs 3.1 %, p = 0.009) and (83.3 % vs 0 %, p = 0.0005),respectively]. The spotty MP showed a sensibility(Se), specificity(Sp), and Accuracy of 85.7 %(95 % CI 42.1-99.6), 98.2 %(95 % CI 90.2-99.9), and 96.8(95CI 88.8-99.6),

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respectively, in the diagnosis of *Hp*-related gastritis. The cracked MP showed a Se, Sp, and accuracy in the case of previous *Hp* infection of 72.2 %(95 % CI 46.5-90.3), 90.9 %(95 % CI 78.3-97.5), and 85.5 %(95 % CI 74.2-93.1), respectively. The mottled MP showed a Se, Sp, and accuracy of 83.3 %(95 % CI 35.9-99.6), 98.2(95 % CI 90.5-99.9), and 96.8 %(95 % CI 88.8-99.6), respectively, in the diagnosis of antrum IM.

Conclusions Antrum MPs could be reliably characterized on CE, possibly identifying current or past *Hp* infection and antrum IM, also in Western Countries. After validation, this CE approach may improve *Hp* detection, possibly avoiding the need for biopsies and reducing the burden of care.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP029 Comparison of diagnostic accuracy of endocytoscopy and probe-based confocal laser endomicroscopy

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DOI 10.1055/s-0044-1783039

Aims Traditionally, biopsies have been regarded as the most accurate method for diagnosing gastrointestinal systems. However, the risks of sampling errors and post-biopsy inflammatory changes can make endoscopic procedures challenging. Therefore, in vivo methods have gained importance, with endocytoscopy and probe-based confocal laser endomicroscopy (pCLE) emerging as prominent techniques. Despite their significance, there has been no study comparing these two methods to date. This retrospective study aims to compare the accuracy and clinical utility of these two diagnostic approaches.

Methods In this study, a total of 110 patients with various gastrointestinal lesions were examined using pCLE and dye-based endocytoscopy. The primary objective was to compare the sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), and overall accuracy of these diagnostic methods. The secondary outcomes included comparing the rate of obtaining diagnostically viable images with each method and evaluating the organ-specific diagnostic rates when both methods were used in conjunction.

Results The study found that pCLE had a sensitivity of 100 % (95 % CI: 94.42 % to 100 %), specificity of 78.57 % (95 % CI: 52.41 % to 92.43 %), positive predictive value (PPV) of 95.59 % (95 % CI: 87.81 % to 98.49 %), negative predictive value (NPV) of 100 % (95 % CI: 74.12 % to 100 %), and an overall accuracy of 96.20 % (95 % CI: 89.42 % to 98.70 %). In comparison, endocytoscopy showed a sensitivity of 47.69 % (95 % CI: 36.02 % to 59.62 %), specificity of 85.71 % (95 % CI: 60.06 % to 95.99 %), PPV of 93.94 % (95 % CI: 80.39 % to 98.32 %), NPV of 26.09 % (95 % CI: 15.60 % to 40.26 %), and accuracy of 54.43 % (95 % CI: 43.50 % to 64.95 %). The differences in sensitivity, NPV, and accuracy between the two groups were statistically significant (P value < 0.001), but no significant differences were observed in specificity and PPV (P = 0.720). [1–6]

Conclusions pCLE demonstrated statistically superior performance over endocytoscopy in terms of sensitivity, NPV, and overall accuracy. However, there were no significant differences in positive predictive value PPV and specificity between the two methods. It was also noted that obtaining diagnostic-quality images was more challenging with endocytoscopy. Remarkably, when both methods were employed together, the diagnostic accuracy approached nearly 100 %.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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EUS-guidedtissue acquisition: beyond the pancreas

25/04/2024, 10:00 – 11:00 **Science Arena: Stage 1**

MP030 Endoscopic ultrasound-guided liver biopsy: a safe and effective procedure. Comparative study with a retrospective cohort of patients who underwent percutaneous liver biopsy

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Aims Percutaneous liver biopsy (PLB) has been considered as the main technique for liver diseases anatomopathological diagnosis. Endoscopic ultrasound-guided liver biopsy (EUS-LB) has been reported as an alternative diagnostic method. The aim of our study is to compare the diagnostic yield and safety of EUS-LB vs. PLB.

Methods Retrospective analysis comparing two unicentric cohorts: a group coming from a prospective database of patients who underwent EUS-LB and a group coming from a retrospective database of patients who underwent PLB. We defined diagnostic yield as a satisfactory sample, which provided a successful histopathological diagnosis. The needles used were: 19-G core biopsy needles (EUS-LB group) *versus* 16 G biopsy needles (PLB group). Statistical analysis: Chi-Square and Fisher exact tests (proportions), Student T test/non-parametric counterparts (quantitative variables).

Results A total of 247 procedures were analyzed (108 EUS-LB/139 PLB). 59.5 % were female with a mean age of 52.17 + /-14, being younger in the PLB group (49.43 ± 13.2 vs 55.69 ± 14.2, respectively (p = 0.01)). The median number of portal tracts (NPT) was 16 (IQR 9-23) for EUS-LB and 9 (IQR 6-11) for the PLB group (p = 0.000). The median specimen length (SL) was 12mm (IQR 10-15) for EUS-LB and 15mm (IQR 12-19) for PLB (p = 0.00). No differences were observed between the two groups regarding diagnostic yield (98.1 % in EUS-LB vs. 97.1 % in PLB (p = 0.702)) and safety (3.4 % complications in EUS-LB vs. 4.3 % in PLB (p = 1)). The median hospitalization days were significantly lower for the EUS-LB group 0 vs. 1 (p = 0.00). No factors associated with diagnostic yield were found, although a non-significant trend related to NPT was observed (10 (7-16) vs. 2 (1.5-7.25) (p = 0.06)).

Conclusions EUS-LB is as effective and safe as PLB, obtaining a higher NPT but with a lower LM. The overall diagnostic yield is related to an almost significant association with a higher NPT obtained.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP031 Combined Single Session EUS and ERCP Procedures; The Challenges of Conscious Sedation

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Aims Completing advanced endoscopic procedures e.g. EUS and ERCP, in a single session, under conscious sedation (benzodiazepines ± opiates) is challenging. International recommendations favour enhanced sedation (e.g. propofol) for EUS and ERCP to optimise outcomes. Non-anaesthesiologist administration of propofol (NAAP) is restricted by regulatory and anaesthetic constraints in Irish endoscopy. Access to anaesthetist delivered propofol sedation (PropERCP) is limited to a minority of procedures. [1]

Methods A retrospective analysis of a prospectively maintained ERCP database of single-session EUS/ERCP procedures over 16 months, focusing on sedation use and technical success.

Results 697 ERCPs were analysed, 83 % (n = 547) direct ERCPs and 17 % (n = 122) combined EUS/ERCP procedures. Diagnostic EUS procedures (e.g. EUS confirmation of CBD stones pre-ERCP) accounted for 75 % (n = 91) of combined cases vs 25 % (n = 31) of interventional EUS cases (e.g. EUS/FNA of malignant pathology pre-ERCP) There was no significant difference in age or gender between cohorts. PropERCP was exclusively used for direct ERCPs, accounting for 5 % (n = 29). Overall ductal cannulation rate was 91 % but was significantly lower for EUS/ERCP vs direct ERCPs (84 % vs 93 %, p = 0.001). PropERCP achieved a cannulation rate of 100 %. Matching by indication, failed cannulation rates for choledocholelithiasis was 13 % for EUS/ERCP vs 3 % of direct ERCPs (p < 0.001). Difficult ERCP cannulation rates (requirement for a pre-cut sphincterotomy or pancreatic duct stenting) were higher in EUS/ERCP vs direct ERCPs; choledocholelithiasis 18 % vs 8 %, p = 0.022, and malignant strictures 29 % vs 14 %, p = 0.045. Complication and successful stenting rates did not differ between the groups. EUS/ERCPs required > 5mg midazolam in 75 % vs 52 % of direct ERCPs (p < 0.001). Similarly, > 100mcg of fentanyl was required in 51 % of EUS/ERCPs vs 21 % of direct ERCPs (p < 0.001). Sedation-related issues complicated 12 % (n = 15) of EUS/ERCP procedures. Sedation-related ERCP failure rates were significantly higher in EUS/ERCPs vs direct ERCPs (5 % vs 2 %, p = 0.045). Subgroup analysis of diagnostic (dEUS) vs interventional (EUS/FNA) cases demonstrated highest rates of difficult cannulation in EUS/FNA (36 % vs 18 %, p = 0.047), reflecting the underlying malignant pathology. EUS/FNA required increased sedation doses vs dEUS; ≥ 5mg midazolam, 100 % vs 66 %, p < 0.001, ≥ 100mcg fentanyl, 77 % vs 42 %, p < 0.001.

Conclusions Successful biliary cannulation is significantly more challenging in EUS/ERCP cases under conscious sedation. PropERCP is beneficial in facilitating completion of complex biliary endoscopy cases at first attempt. Combined procedures, especially EUS/FNA procedures are a priority for PropERCP support.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP032 A systematic review and meta-analysis of diagnostic outcomes of endoscopic ultrasound guided liver biopsy versus percutaneous liver biopsy

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Aims Despite the increasing diffusion of non-invasive tests for the diagnosis of liver diseases, histological assessment through liver biopsy (LB) is still often mandatory especially in unclear cases. Actually, percutaneous approach (PC-LB) is the gold standard. Nowadays, endoscopic ultrasound-guided liver biopsy (EUS-LB) has emerged as an established method to achieve liver tissue sampling. EUS-LB has several advantages such as: sampling of both liver lobes, it allows to obtain liver tissue sampling in case of ascites and toavoid damage to nearby organs and vessels. We performed a syematic review witj meta-analysis (MA) to evaluate the diagnostic outcomes and safety for liver tissue acquisition of PC-LB and EUS-LB in patients with liver diseases and focal liver lesions

Methods Studies that compare diagnostic outcomes of PC-LB and EUS-LB were identified through literature search usign MEDLINE, Embase and Scopus until Septmber 2023**.** MA was performed according to a frequentist approach. For technical success and accuracy, the untransformed proportions were estimated by the DerSimonian and Laird random-effects model.

Results 11 studies recruiting 1.389 patients of which 724 underwent PC-LB and 665 underwent EUS-L were included in MA. Overall, pooled diagnostic adequacy showed an OR 2.062 (95 % CI: 0.360 – 11976 I^2 = 71.4 %, P = 0.002) when comparing PC-LB to EUS-LB. Pooled accuracy between the two procedures was OR 3.071 (95 % CI: 0.166 – 56.644 I^2 = 64.47 %, P = 0.06). Pooled rate of overall adverse events was slightly higher in PC-LB compared to EUS-LB, OR: 1.297 (95 % IC: 0.484 – 3.475 644 I^2 = 35.34 %, P = 0.146. Overall no differences between the two procedures were observed I term of total length specimen and in term of complete portal tract.

Conclusions In conclusion, our meta-analysis do not show significant differences between PC-LB and EUS-LB in terms of adequacy, technical success and accuracy, albeit EUS-LB is slightly safer than PC-LB

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP033 Safety and technical feasibility of right adrenal glands Endoscopic Ultrasound Fine-Needle Aspiration Biopsy in staging and prognosis of oncological patients

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Aims In patients diagnosed with cancer, timely identification of distant metastases is crucial for optimal staging and prognosis. Adrenal gland metastases originated mainly from lung (39 %), breast (35 %) and GI tract, pancreas and kidney. In recent years, role of ultrasound endoscopy biopsy (EUS-FNA/B) for the detection of metastases of the adrenal gland has acquired greater importance. However, EUS biopsy of the right adrenal gland is more challenging due to its position and sub-optimal visualization. The diagnostic yield and technical feasibility of EUS FNA/B of right adrenal gland lesions has not been systemati-

cally defined. In this study we evaluated the accuracy and safety of EUS-FNA/B in the diagnosis of right adrenal gland masses suspected to be metastases.

Methods We retrospectively reviewed 11 patients undergone EUS-FNAB for suspected right adrenal glands metastases between January 2020 and January 2023. After a multidisciplinary evaluation, patients were scheduled for EUS-FNA/B. We defined technical success as adequate visualization and performance of FNA/B with at least 3 passes of the right adrenal gland.

Results We obtained technical and diagnostic success in 9/11 patients underwent EUS-FNA/B. In 8 patients a transduodenal EUS FNA/B was performed while in only one a transgastric approach was chosen. In 2 patients it was not possible to adequately visualize the right adrenal gland. All patients presented a mild to moderate increased uptake on PET scan with a median SUV 5.7. In 7 patients diagnosis of non small cell lung cancer (NSCLC) metastases was confirmed. One patient showed distant metastases of tongue squamous cell carcinoma. In 1 patient a breast cancer metastasis was histologically diagnosed. No complications were observed.

Conclusions EUS-FNA/B is a safe, feasible and highly sensitive technique. EUS biopsy of the right adrenal gland is more challenging than the left one. However, our study showed a technical and diagnostical success rate respectively of 82 % and 100 %; two patients in whom EUS FNA/B could not be performed both had a BMI > 30. Despite more technically demanding, EUS FNA/B of the right adrenal gland is essential for complete preoperative staging and in our experience is characterized by good technical and diagnostical success rate with a high safety profile.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP034 Endoscopic ultrasound guided biopsy of focal liver lesions: a tertiary care single center experience

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Aims To evaluate the efficacy and safety of EUS-FNB of focal liver lesions.

Methods All consecutive patients who underwent EUS-FNB of a focal liver lesion between 2003 and 2023 were retrospectively analyzed. All procedures were performed with patients under deep sedation. Efficacy was evaluated considering technical success, adequacy and accuracy of histological diagnosis. Adequacy was defined as the ability of the technique to confer a histological diagnosis. Accuracy was define as the agreement between definitive histology after surgery (for resectable patients), radiologic findings or clinical course during follow-up. "Malignant" was defined as a case with histologically malignant findings", and "benign" cases were those with "histologically benign findings on EUS-FNB and no tumor growth even after one-year follow-up". Sensitivity and specificity were also evaluated. Adverse events were defined according to American Society of Gastrointestinal Endosocopy (ASGE) lexicon.

Results A total of 58 patients were included in our analysis. Of these, 43 patients had a final diagnosis of malignancy including 7 cases of hepatocellular carcinoma, 16 cases of cholangiocarcinoma, 16 metastasis, 3 cases of malignant neoplasm of unclear origin and 1 Kaposi 's sarcoma. A total of 12 patients received a final diagnosis of benign disease. Only in 3 cases the specimen was suboptimal for histological evaluation. The adequacy and accuracy were 95 % and 96 % respectively. Technical success was 100 %. The sensitivity and specificity were 95 % and 100 % respectively. The localization of lesions were 72.4 % (42 cases) in the left lobe and 27.6 % (16 cases) in the right lobe. No intra/postprocedural adverse events were recorded.A tot

Conclusions Our data suggest that liver lesions are mainly approachable through EUS when located in the left lobe, close to big vessels or in obese patients, with high diagnostic performances and reducing the risk of AEs than other techniques.EUS-guided biopsy of focal liver lesions is effective and safe.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP035 Combined single session EUS + /- ERCP for biliary stone disease. Experience from a large tertiary UK centre

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Aims Single session EUS/ERCP for biliary stone disease has the advantages of obtaining immediate, real-time information from EUS, administering only one sedation for both diagnosing and treating biliary stones, and potentially avoiding an unnecessary ERCP in the event of a spontaneous passage of CBD stones. The objective of this study was to review the combined EUS-ERCP procedures for biliary stone disease and how it alters the proportion of patients undergoing subsequent ERCP. A secondary objective was to assess the imaging modalities that led to the ERCP request and any correlation between the EUS findings, liver function tests (LFTs), abdominal ultrasound (USS)/CT/MRCP findings and scan-to-ERCP time.

Methods Data were retrospectively collected from the endoscopy and patient record system as well as a prospectively maintained database of all ERCP and EUS procedures of a large tertiary centre in the UK during a 12-month period, from 1/10/2022 to 30/9/2023 with a 30-day follow-up period.

Results During the study period, 712 ERCPs were performed, from which 379/712 were for biliary stone disease (53.2 %). 103 patients had EUS + -ERCP for stones. The most recent imaging modality was MRCP for 72/103 patients, CT for 20/103, USS for 10/103 and EUS for 1/103. Median days of most recent imaging to ERCP was 28(8;82). 78/103 patients had a CBD dilatation on their most recent imaging modality and 76/103 patients had a stone identified. 74/103 patients had an abnormal ALP [median 327(204;463) on the ERCP request and 46/103 an abnormal bilirubin [median 61(37;85)].

37/103 patients (35.9 %) did not proceed to an ERCP as it was not indicated from the EUS outcome.

CBD dilatation on most recent imaging was significantly associated with proceeding to ERCP (p = 0.007). Abnormal bilirubin at the time of the request was also associated with proceeding to ERCP (p = 0.009) but not ALP. Pre-procedure repeat LFTs that were normal or improving were significantly associated with not proceeding to ERCP (p = 0.024).

Only 1/37 patient who did not proceed to ERCP had a biliary event in the follow up period. This was a biliary pain episode with jaundice post cholecystectomy, presumed to be from a dropped stone post operatively and he underwent an ERCP. [1–7]

5/64 patients who had an ERCP had a procedure related complication; 2/5 had post ERCP pancreatitis, 2/5 had cholangitis and 1/5 had a small post sphincterotomy bleed.

No patient in the EUS only group had a procedure related complication.

Conclusions Targeted EUS to confirm the presence of CBD stones when there is clinical doubt based on the date and results of imaging and LFTs, is a safe and efficient way to avoid unnecessary ERCPs.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP036 Impact of macroscopic on-site evolution (MOSE) on the accuracy of diagnostic results of echo-endoscopy-guided biopsy of pancreatic and extrapancreatic solid lesions: a prospective study

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Aims Our work aimed to evaluate the accuracy of the MOSE technique in the biopsy of pancreatic and extra-pancreatic lesions.

Methods This was a prospective, monocentric study conducted during the year 2023, including all patients who had undergone EUS-FNB for solid pancreatic and extrapancreatic lesions. The techniques used were Slow Pull, fanning, and/or aspiration with MOSE, and samples were differentiated into score 0: no visible material, score 1: only necrotic or haematic material, score 2: white core tissue ≤ 2 mm, or score 3: white core tissue > 2 mm.

Results Seven two patients underwent EUS-FNB. The median age was 58 years (19-91), predominantly female with a sex ratio of 1.12. The site of puncture was pancreatic in 50 cases (69.5 %) and extra-pancreatic in 22 cases (30.5 %), including lymph node in 07 cases (9.7 %), mediastinal in 05 cases (6.9 %), duodenal ampullary and extra-ampullary in 04 cases (5.5 %), gastric in 03 cases (4.1 %), main biliary tract in 03 cases (4.1 %), rectal and hepatic in only one case (1.9 %). The median size of the masses punctured was 29 mm (7-70) long axis. The puncture route was transduodenal in 36 cases (50 %), transgastric in 30 cases (45.8 %), transoesophageal in 05 cases (6.9 %) and transrectal in one case (1.9 %). The number of needle passes was 2 in 56 cases (77.8 %), 3 passes in 08 cases (11.1 %), and a single pass in 06 cases (8.3 %). Cytopuncture was performed with needle Procore in 30 cases (07 with 22G and 23 with 20 G), 22 G Acquire in 31 cases, 22 G Microtech in 2 cases, and in 09 cases with Echotip (22G in 6 and 19G in 3). The Slow pull with fanning method was used in 53 cases (73.6 %), aspiration in 02 cases (2.7 %), and hybrid method (slow pull with aspiration) in 15 cases (20.8 %). MOSE score 3 was recorded in 52/72 cases (72.2 %), with a conclusive result in 73.1 % (n = 38) of cases and an inconclusive result in 29.9 % (n = 14): the conclusive result was obtained by EUS-FNB in 84.6 % (n = 44) of cases and by EUS-FNA in 15.3 % (n = 8) of cases, with the Slow pull method in 27 cases (51.9 %), the combined method in 10 cases (19.2 %) and by aspiration in only one case. MOSE score 2 was noted in 18/72 cases (25 %), with conclusive results in 44.5 % (n = 8) of cases and inconclusive results in 55.5 % (n = 10): conclusive results were obtained by EUS-FNB in 100 % of cases, with the Slow pull method in 100 % of cases. MOSE score 1 was noted in 2/72 cases (2.8 %), with inconclusive results in both patients. Diagnostic accuracy increased according to the MOSE score: it was 0 %, 44.5 %, and 73.1 % respectively in patients with score 1, score 2, and score 3.

Conclusions MOSE allows endoscopists to make an immediate assessment of specimen quality, MOSE with a score of 3 can be an indicator of specimen adequacy in 73.1 % of our study. Cytopuncture by EUS-FNB with the use of the slow pull and fanning method with MOSE can increase diagnostic reliability.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP037V Vena cava tumor as a differential diagnosis of retroperitoneal lesion

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Abstract Text 67-year-old women presenting low back pain. Abdominal CT is performed showing a 4 x 5 cm retroperitoneal lesion, located in the second to third duodenal portion, close to de inferior vena cava (IVC). Endoscopic ultrasonography (EUS) describes a hypoechoic and heterogeneous mass, with no clear origin. EUS fine-needle biopsy (FNB) is made using a 22 G needle (Sharkcore), and the result of the histology is compatible with a mesenchymal neoplasia with proliferation of spindle cells. En bloc resection is achieved by surgery, following reconstruction with a ringed PTFE graft. Final diagnosis is consistent with a well-differentiated leiomyosarcoma of the IVC. This is a rare neoplasia, most common in women between 40 and 60 years. The clinical and radiological appearance are unspecific. EUS-FNB is a good tool to achieve de diagnosis and the surgical intervention is the treatment of choice [1–2].

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/2dc2baba-509b-42ff-9d3a-7195cd370c2e/Uploads/13821_Leiomiosarcoma_(2-0%20def).mp4

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MP038 Systematic and combined endobronchial and endoscopic ultrasound (EBUS-EUS) for diagnosis and staging in lung cancer: experience from a tertiary center

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Aims Combined endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) and endoscopic ultrasound-guided tissue acquisition (EUS-TA) is an accurate procedure for the diagnosis and staging of mediastinal lymph nodes (MLN) in lung cancer. However, the respective contribution of separate and combined procedures in diagnosis and staging has not been fully studied. The aim of this study was to assess their respective performances.

Methods Patients with suspected malignant MLN in lung cancer or recurrence identified by PET-CT who underwent combined EBUS-TBNA and EUS-TA were retrospectively reviewed.

Results A total of 141 patients underwent both procedures. Correct diagnosis was obtained in 82 % with EBUS-TBNA, 91 % with EUS-TA, and 94 % with the combined procedure. The overall sensitivity, specificity, positive and negative predictive values (PPV and NPV) of EBUS-TBNA, EUS-TA and the combined procedure for diagnosing malignancy were [75 %, 100 %, 100 %, 58 %], [87 %, 100 %, 100 %, 75 %], and [93 %, 100 %, 100 %, 80 %], respectively, with a significantly better sensitivity of the combined procedure ($P < 0.0001$). Staging (82/141 patients) was correctly assessed in 74 % with EBUS-TBNA, 68 % with EUS-TA and 85 % with the combined procedure. The overall sensitivity, specificity, PPV and NPV of EBUS-TBNA, EUS-TA and the combined procedure for lung cancer staging were [62 %, 100 %, 100 %, 55 %], [54 %, 100 %, 100 %, 50 %], and [79 %, 100 %, 100 %, 68 %], respectively, significantly better in terms of sensitivity for the combined procedure ($P < 0.001$).

Conclusions The combined EBUS-EUS approach in lung cancer patients showed better accuracy and sensitivity in diagnosis and staging when compared with EBUS-TBNA and EUS-TA alone. [1–10]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP039 Trans-oesophageal biopsy for lung masses: a prospective analysis of performances of EUS-guided FNB in a tertiary center

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Aims Pulmonary masses are a diagnostic challenge in the field of endoscopic ultrasound (EUS) tissue acquisition (TA), due to both an unclear diagnostic accuracy of other available approaches and the need of enough tissue for molecular profiling. Traditionally, percutaneous CT-scan guided and trans-bronchial tissue acquisition are still the most common techniques. However, centrally or peri-oesophageal lung masses require a different approach, and moreover the development of third generation needles [1] for fine-needle biopsy (EUS-FNB) permitted to acquire through EUS-FNB more tissue from lung masses compared to the transbronchial approach. Our study evaluate the feasibility, diagnostic yield, accuracy and safety of trans-oesophageal EUS-FNB of pulmonary lesions.

Methods Consecutive patients undergoing EUS-FNB of parenchymal lung masses suspected for malignancy were enrolled between December 2020 and August 2023 in a prospective registry at our tertiary research and referral institute. All of the EUS procedures were performed by experienced endosonographers (defined as at least 50 mediastinal EUS-FNB). Outcomes of interest were feasibility, diagnostic accuracy, diagnostic yield, diagnostic sensibility, diagnostic specificity, specimen adequacy and safety.

Results We included 42 patients with lung masses undergoing EUS-FNB (43 total procedures). The mean age was 70.0 ± 10.3, and male were 73.8 %. About ninety percent of patients had a positive history of smoking, with 55.8 % of them being active smoker at diagnosis. Procedures were performed mainly under deep sedation (95.2 %) and some of them (50 %) using double channel laryngeal mask. The mean lesion size was 51.1 ± 21.6 mm, and patients had mostly a single lesion (n = 35, 83.3 %). Most of the patients had an advanced stage at diagnosis (stage IIIA, 32.4 %; stage IIIB, 16.2 %, stage IV, 40.5 %), and the most common lung cancer was not-small cell lung carcinoma (NSCLC, 45.2 %). The histological diagnosis was adenocarcinoma in 10 patients (23.8 %), squamous carcinoma in 1 patient (2.4 %), mesothelioma in 2 patients (4.8 %), neuroendocrine tumours in 2 patients (4.8 %) and metastasis in 1 patients (2.4 %). Median follow up of the whole cohort was 49 days. Diagnostic yield was 90.7 % (CI 95 %, 78.4 % to 96.3 %), and the diagnostic adequacy rate was 93.02 % (CI 95 %, 81.4 % to 97.6 %). Moreover, diagnostic accuracy was 97.4 % (CI 95 %, 86.8 % to 99.55 %). Furthermore, diagnostic sensitivity was 97.3 % (CI 95 %, 86.2 % to 99.5 %), while diagnostic specificity was 100 % (CI 95 %, 34.24 % to 100 %). AEs were reported in two procedure (4.7 %).

Conclusions Trans-oesophageal EUS – FNB is a feasible and safe diagnostic method of tissue sampling for lung masses. Our findings on EUS-TA confirm the high sensitivity, specificity, diagnostic yield, accuracy and specimen adequacy of EUS-FNB for lung masses.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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Endoscopy & UGI Bleeding: Spotlight on Solutions

25/04/2024, 11:30 – 12:30 Science Arena: Stage 2

MP040 Can we predict the occurrence of post-ligature esophageal varices (LVO) eschar fall? a single-center Moroccan experience

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Aims Endoscopic variceal ligation (EVL) is the treatment of choice for variceal hemorrhage in cirrhotic patients. Falling esophageal ulcers (LVOs) are a rare but serious complication. Our aim was to determine the predictive factors for the occurrence of this incident, as well as its mortality.

Methods This is a Retrospective study,including 480 cirrhotic portal hypertension patients who underwent ligation between January 2015 and June 2023.A univariate and multivariate analysis were performed to determine the predictive factors of hemorrhage by post-LVO eschar fall.

Results Post-LVO hemorrhage occurred in 24 patients (5 %) with a mean age of 39.9 years [18;75], and an M/F sex ratio of 1.13. Twelve patients were admitted via the emergency department for digestive hemorrhage. Cirrhosis was non-B non-C in 7 patients, of viral B or C origin in 12, and of alcoholic origin in 1 patient. Six patients (15 %) had child C. Hemorrhage due to pressure ulcer fall occurred within an average of 7.4 days [1;16], inducing hemodynamic instability in 10 patients (25 %) and requiring transfusion in 78 % of patients. According to univariate analysis,the risk factors for this event were:emergency ligation($p = 0.004$),presence of ascites($p = 0.001$),EH ($p = 0.001$),platelet count < 70,000($p = 0.04$),presence of PH gastropathy($p = 0.001$),advanced child Pugh score($p = 0.0034$) and performance of FOGD by a junior($p = 0.004$).Multivariate analysis concluded that only a low platelet count was statistically associated with the occurrence of pressure ulcer fall. Mortality was 31.2 % following this complication.

Conclusions Post-LVO eschar hemorrhage in cirrhotic patients is a severe complication, especially in cases of emergency department recruitment. The occurrence of this complication was statistically linked to a low platelet count and was associated with a high mortality rate in 1/3 of patients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP041 A new capsule for long term monitoring in suspected upper GI-bleeding – first in human use of the HemoPill monitor

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DOI 10.1055/s-0044-1783051

Aims Since 2020, a photometric capsule endoscopy (HemoPill acute) has been available for non-invasive diagnosis of acute bleeding in the upper gastrointestinal tract. For long-term monitoring of a potential source of bleeding, a new version with a fixation option is available.

We report on the first application of the new HemoPill monitor capsule (28d monitoring) in a patient with fundus variceal haemorrhage and subsequent fundus variceal occlusion with cyano acrylate.

Methods The capsule system consists of a photometric capsule, which is attached to an over-the-scope clip by a thread. The system is inserted using a standard gastroscope with a dedicated cap on the tip of the endoscope. The data transmitted by radio is displayed on an accompanying receiver as a HemoPill index (HI). An HI value ≥ 1.0 is considered as active bleeding in the lumen.

In our patient, the capsule was fixed in the distal corpus as part of an esophagogastroduodenoscopy (EGD). After discharge the patient was contacted daily by telephone, had daily blood pressure measurements and weekly Hb checks. After 15 days, the position of the capsule and the fundic varices were checked by EGD. After 28 days, the capsule including over-the-scope clip was removed.

Results The fixation of the capsule (EGD duration 8 minutes), the measurement itself and the patient's handling of the system were free of complications. There were no clinically relevant bleeding events during the 28-day monitoring period (no melena, Hb increase of 1.4 g/dl).

There were 10 relevant events (HI value ≥ 1.0) during the measurement period of 28d. Of these, four events lasted less than 10 minutes, and three events less than 60 minutes. Two events lasted more than 90 minutes but did not lead to an emergency endoscopy due to the lack of clinical bleeding signs. At the control endoscopies (d15 and d28), mucosal haemorrhage due to penetrating cyanoacrylate was postulated as a possible cause of the self-limiting haemorrhage.

Capsule removal using the over-the-scope clip Remove-System was without complications (procedure time 12 minutes).

Conclusions The first application of the HemoPill monitor capsule was technically successful and clinically straightforward. The highly sensitive measuring system detects even the smallest haemorrhages, which are not always clinically relevant. For effective monitoring of potential sources of bleeding, threshold values (duration, etc.) must be established in order to avoid unnecessary endoscopies. This requires more comprehensive data from additional patients.

Conflicts of interest A. Meining is consultant for Ovesco Endoscopy AG

MP042 Clinical Significance of Blood Urea Nitrogen as a Predictor of Delayed Bleeding After Endoscopic Submucosal Dissection for Gastric Neoplasm

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Aims Endoscopic submucosal dissection (ESD) is a widely accepted treatment modality for early gastric cancer and gastric adenoma. However, ESD is often accompanied by post-ESD bleeding. Our study aimed to evaluate the predictive value of an elevated blood urea nitrogen (BUN) at 24 hours on delayed bleeding and to assess whether an increase in BUN level is predictive of an artificial gastric ulcer of high-risk Forrest classification during second-look endoscopy after endoscopic submucosal dissection.

Methods We analyzed the data patients who underwent ESD for either early gastric cancer or gastric adenoma. Baseline characteristics, endoscopic findings, and blood test results were assessed for each enrolled patient.

Results A total of 424 patients were assessed in this study. Second-look endoscopy (SLE) performed one day after ESD demonstrated 44 post-ESD lesions with a high risk of bleeding and 385 lesions with a low risk of bleeding according to the Forrest classification. An artificial gastric ulcer of high-risk Forrest classification was associated with a significantly higher rate of post-ESD bleeding. An elevated BUN level at 24 hours after endoscopic submucosal dissection was significantly associated with an artificial gastric ulcer of high-risk Forrest classification during second-look endoscopy. ($p = 0.003$) [1]

Conclusions Our study suggests that changes of BUN may play a role in predicting post-ESD bleeding.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP043 The effects of ulcerogenic drugs on the adverse events associated with nonvariceal upper gastrointestinal bleeding

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Aims Although the incidence of nonvariceal upper gastrointestinal bleeding (NVUGIB) has been decreasing, the mortality rate is still significant and accounts up to 10 % of cases. The increasing importance in the pathogenesis of the GI bleeding is the use of ulcerogenic medications. The study was aimed to asses the frequency of adverse events (AE) and their association with individual groups of ulcerogenic drugs (nonsteroidal anti-inflammatory drugs – NSAIDs, acetylsalicylic acid – ASA, oral anticoagulants – OAC, new oral anticoagulants – NOAC, antiplatelet drugs – APD, corticosteroids – CS, and selective serotonin reuptake inhibitors SSRI) in patients with NVUGIB.

Methods This retrospective cross-sectional study included 301 patients who were admitted to our Center due to an episode of NVUGIB. The subjects were divided into the first group that consisted of those who used one or more ulcerogenic drugs (n = 222, 73.8 %), or the second group which included subjects who did not use any of the ulcerogenic drugs (n = 79, 26.2 %). We classified the AE into following: the need for transfusions of deplasmatized erythrocytes (DPE) and the need for endoscopic hemostasis (EH), while serious adverse events (SAE) were rebleeding (RB), surgical treatment, i.e. the need for surgical intervention (SI) and death within the first 30 days of discharge for further home treatment (D).

Results In our cohort, a total of 370 AE were recorded, while the percentage of lethal outcome was 7.3 %. The most represented ulcerogenic drugs were NSAIDs (49.2 %), accompanied by ASA preparations (42.5 %). Patients with NVUGIB that used ASA were significantly associated with rebleeding (p = 0.024) and with fatal outcome in the first 30 days of treatment (p = 0.003), as well as with the whole group of SAE (p = 0.000). The use of NSAIDs was not significantly related with any individual SAE (rebleeding p = 0.487, surgery p = 0.669, mortality p = 0.717), nor with the whole group of SAE (p = 0.777). Patients who used CS also had no statistically significant association with individual serious adverse events (rebleeding p = 0.095, surgery p = 0.221, death p = 0.282), nor with the entire SAE group (p = 0.171). The lethal outcome in the first 30 days of treatment was significantly associated with the use of OAC and NOAC (p = 0.024), as well as the use of antiplatelet drugs (p = 0.003). The entire group of SAE, was also significantly related to the use of OAC/NOAC (p = 0.001), as well as the use of APD (p = 0.020).

Conclusions Based on our results, the use of ASA significantly increases the possibility of rebleeding and death in the cohort. The use of APD was associated with fatal outcome and the whole group of SAE in patients with NVUGIB. We also concluded that the use of OAC/NOAC was significantly associated with death and the entire SAE group in patients with NVUGIB, while the use of NSAIDs or CS was not associated with a higher incidence of SAE in patients with NVUGIB.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP044 Treatment of Postsphincterotomy Bleeding With a Novel Self-assembling Peptide Hemostatic Gel

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Aims Bleeding following endoscopic sphincterotomy (ES) is among the most common complications of endoscopic retrograde cholangiopancreatography (ERCP). Significant bleeding manifested by melena or hematochezia occurs in 2-5 % of procedures. Common endoscopic hemostatic methods include injection of diluted adrenaline, application of hemoclips, and coagulation techniques. Our objective was to assess the safety and efficacy of the a novel self-assembling peptide hemostatic gel in the treatment of acute and delayed bleeding after endoscopic sphincterotomy or precut.

Methods From August 2022 to August 2023, a novel self-assembling peptide hemostatic gel was applied to all consecutive patients in our center who underwent endoscopic sphincterotomy or precut (intervention group). We compared the occurrence of significant bleeding defined by presence of melena, hematemesis, or hematochezia with a historic cohort from the period June 2021 to June 2022 when a novel hemostatic peptide gel was not available (control group). Other outcomes measured included post-ERCP pancreatitis and cholangitis, the number of urgent gastroscopies, and recurrence of bleeding. Data were processed using logistic regression models.

Results In the intervention group, 102 ES and 21 precuts were performed (83 % and 17 %) in a total of 117 patients, while in the control group, 125 ES and 19 precuts were performed (87 % and 13 %) in a total of 140 patients. The groups did not differ in average age (66.6 + - 16.2; 70.6 + - 15.2), gender distribution (M/F 55/85; 50/76), or etiology. Post-ERCP bleeding in the intervention group was significantly less frequent compared to the control group, (3 patients (2.4 %) vs. 9 patients (6.4 %); OR 0.15; p = 0.031). Urgent gastroscopy for overt bleeding after ERCP was performed in 2 patients in the intervention group and 7 in the control group. No recurrences of bleeding were observed. The incidence of post-ERCP pancreatitis and cholangitis did not significantly differ in both groups (p = 0.473 and p = 0.411).

Conclusions The use of the a novel self-assembling peptide hemostatic gel appears to be an easy, safe, and effective method for treating bleeding after ES. Additional advantages include the transparency of the gel, which does not impede the continuation of the procedure, and the possibility of combination with other hemostatic methods. Considering cost-benefit effectiveness, it is advisable to consider the application in patients with risk factors for bleeding after ES. [1–3]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP045 An observational cohort study of patients with chronic liver disease undergoing variceal screening and surveillance using capsule endoscopy

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Aims Meta-analysis identified a pooled sensitivity and specificity of 85 % and 84 %, respectively, for the detection of varices by the Pillcam ESO3 (Medtronic Ltd., Minneapolis, USA) compared to gastroscopy. [1] The most recent iteration, the Pillcam UGI, also a double ended capsule camera, had twice the image acquisition rate of 35 per second for the first 10 minutes. We aimed to evaluate

this device in an observational cohort study as it was not previously studied in patients with liver disease.

Methods All patients referred for screening and surveillance of varices during the COVID-19 pandemic, as well as patients refusing gastroscopy prior to this, were offered UGI capsule endoscopy (CE). Success rate, completeness of examination, prevalence and grade (G) of varices and time taken to read the video were recorded. Impact on management and subsequent bleeding episodes were identified by case note review.

Results CE was performed in 207 patients (median (IQR) age 62 (± 18), 53 % male), transit time was 7 seconds (± 10 seconds; equating to 245 oesophageal images) and reading time was 4 minutes (± 2 minutes). Complete views of oesophagus, cardia and fundus were obtained in 99 %, 86.5 % and 52.2 % respectively. Varices were detected in 58 (28 %) patients: 55 (94.2 %)) oesophageal (38 (66 %) G1, 14 (24 %) G2 and 3 (5 %) G3)) and 3 (5 %) gastric varices (all G1). A retained capsule was retrieved from a post-banding oesophageal stricture in one patient (0.5 %) and there was one technical failure. Overall, CE changed management in 23 (11.1 %) and gastroscopy was avoided in 194 (94 %) of patients. Of the 58 patients with varices, management was changed in 16 (28 %): 6 (10 %) had gastroscopy, 9 (15 %) patients were prescribed (or had a dose increase of) β blockers and one patient with G1 varices and *H. pylori* erosive gastritis was given acid suppressants. The remaining 7 patients had non-variceal pathologies identified. 2 patients had G2 variceal bleeding during a median follow up period of 24 months (± 19), 1 and 4 four years after CE had shown G1 and G0 varices respectively.

Conclusions CE is a non-invasive, safe and effective method for the detection, monitoring and management of oesophagogastric varices.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP046 Difficult arterial bleeding during gastric ESD: self-assembling peptide gel saves the day!

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Abstract Text We performed ESD for a 4-cm early gastric cancer Paris type IIa + c lesion located on the lesser curvature in a 77 year-old man. He was cardiostimulated for atrial fibrillation and received the last dose of low molecular weight heparin 12 hours prior. Halfway through dissection with the IT2-knife an important arterial bleeding occurred while injection and coagulation by coagrasper failed. In order to finish the procedure, we opted for application of self-assembling peptide gel with which the hemostasis was achieved. We continued dissection in another region and finished the resection by cutting through the transparent gel with no intraprocedural recurrence of the bleeding. Pathology confirmed R0 resection of a G1 intestinal-type adenocarcinoma eCura A and no recurrence was seen at follow-up. The case illustrates a procedure-rescuing use of hemostatic gel, allowing optimal patient outcome.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP047 Timing and findings of emergency endoscopy in prehospital acute gastrointestinal bleedings

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Aims Gastrointestinal bleeding (GIB) is a common emergency in prehospital and intrahospital settings and optimal timing of endoscopy is a constant matter of debate. Recent studies suggest, that after successful initial stabilization, there is no difference in clinical outcome when acute bleedings were endoscopically treated within or after 6 hours. Our aim was to evaluate the real-life clinical practice in the treatment of prehospital GIB.

Methods Preclinical data, risk scores of GIB like the Glasgow-Blatchford-Score (GBS), clinical treatment, endoscopic findings and outcome data were retrospectively analyzed in patients with endoscopically GIB admitted to eight different emergency departments in southwest Germany, by emergency medical service between 2016 and 2022. The time interval from first patient contact to endoscopy was determined as well as means of endoscopic interventions.

Results A total of 293 patients with suspected prehospital GIB underwent endoscopy after hospital admission, where GIB could be confirmed in 256 patients (61 % male, mean age 72 years, median age 75 years, range 36-97 years). Most frequent sources of bleeding were gastric or duodenal ulcers (34 %), esophageal or gastric varices (13 %), colorectal diverticula (11 %), reflux esophagitis (10 %), erosive gastritis/duodenitis (6 %), Mallory-Weiss-lesions (6 %), and colitis (including chronic inflammatory disease and ischemia) (5 %). Median GBS for upper GIB was 10 points. Overall mortality of GIB during primary care was 9.3 %. Endoscopic interventions were performed in 46 % of all patients, most frequently in variceal bleedings (88 %) and bleeding ulcers (59 %). Interventions were performed in 67 %, 48 %, and 16 % of all endoscopies at 0-2, 3-6, and 7-12 hours after first patient contact, respectively. The median time interval between first prehospital contact and endoscopic intervention was 2 hours for both variceal and non-variceal bleeding. Most frequent means of hemostasis were through-the-scope-clips (60 %), injection (47 %) and rubber-band ligation (24 %). Rescue techniques were operation (6 %) and radiological embolization (2 %).

Conclusions ESGE guidelines on non-variceal bleeding discourage from urgent endoscopy within 12 hours of patient presentation. However, in clinical trials randomization of GIB patients to urgent (< 6 hours) and early (> 6 hours) endoscopy took place on average 8 hours after admission. In our cohort, the majority of patients underwent endoscopy and endoscopic intervention already within the first 6 hours after the first contact, questioning the applicabilty of some randomized trials on daily clinical practice.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP048 A HAEMOGLOBIN LEVEL OF 61-70 g/L SEEMS AN OPTIMAL THRESHOLD FOR RED BLOOD CELL TRANSFUSION AFTER ACUTE GASTROINTESTINAL BLEEDING: a cohort analysis from the Hungarian Gastrointestinal Bleeding Registry

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Aims Gastrointestinal bleeding is among the most common indications for red blood cell (RBC) transfusion. According to current guidelines, restrictive RBC transfusion initiated at a lower haemoglobin (Hgb) level (<70-80 g/L) is non-inferior to liberal strategy (<90-100 g/L) regarding mortality and rebleeding. Moreover, it results in a lower rate of adverse events and decreases hospital expenses. However, the published randomised controlled trials are not using a unified definition for the restrictive modality. Our analysis aims to assess the efficacy of restrictive transfusion by comparing different Hgb thresholds.

Methods Patients enrolled in the Hungarian Gastrointestinal Bleeding Registry who received RBC transfusion during hospitalisation were found eligible. The transfused group was divided into subgroups based on their lowest Hgb level during hospitalisation: ≤ 60 g/L (group 1), 61-70 g/L (group 2), 71-80 g/L (group 3), ≥ 80 g/L (group 4). Patients with recurrent bleeding were excluded. The outcomes examined included in-hospital mortality, the need for surgical intervention, intensive care therapy, and length of hospital stay. When comparing the groups, group 2 was used as the reference. Adjusted odds ratios (aOR) were calculated using binominal logistic regression, while the ANOVA test was used to determine adjusted mean differences (MD) and the related 95 % confidence intervals (CI). The multivariate model included age > 65 years, sex, ischemic heart disease, vascular disease, heart failure, chronic obstructive pulmonary disease, active malignancy, antithrombotic and anticoagulant treatment.

Results Of 1019 patients with gastrointestinal bleeding, 575 (56.42 %) were eligible for analysis. The lowest mortality rate was observed in group 3 (8.98 %). However, there was no statistically significant difference in mortality odds when comparing transfusion at different Hgb levels to group 2 (1 vs 2: aOR: 0.64, CI: 0.24-1.70; 3 vs 2: aOR: 0.79, CI: 0.27-2.27; 2 vs 4: aOR: 0.50, CI: 0.10-2.48). Group 2 had the slightest need for surgical intervention (2.30 %) compared to other groups. There was a tendency towards increased odds of surgical intervention in group 1 compared to group 2 (aOR: 4.13, CI: 0.64-26.65). Furthermore, the odds of intensive care therapy were significantly increased in groups 1 and 4 compared to group 2 (1 vs 2: aOR: 6.37, CI: 1.37-29.53; 4 vs 2: aOR: 10.97, CI: 1.91-62.98). Compared to group 2, group 3 showed an increased tendency in the odds for intensive care unit admission (aOR: 4.83, CI: 0.97-24.07). There was no significant difference in the length of hospital stay among the groups.

Conclusions Our findings support that haemoglobin levels between 61-70 g/L may be considered safe compared to lower (≤ 60 g/L) or higher (≥ 80 g/L) transfusion thresholds. Randomised controlled trials with extended follow-up periods are needed to validate our results.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP049 Acute upper gastrointestinal bleeding in the UK: patient characteristics, diagnoses, and outcomes in the 2022 prospective audit of 5000 patients

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Aims With the evolving landscape of acute upper GI bleeding (AUGIB) management, a comprehensive understanding of changing clinical outcomes becomes imperative. This report presents findings from the 2022 UK-wide multi-centre AUGIB audit, drawing comparisons to the previous 2007 study. [1]

Methods A prospective multi-centre audit, conducted between May 3 and July 2, 2022, included adults (≥ 16 years) presenting with AUGIB in UK hospitals.

Results Data on 5101 patients (median age 69yr) from 152 participating hospitals are reported. New admissions with AUGIB (n = 3905) were younger than inpatients developing AUGIB (median age 67.5 vs 74 yrs, respectively) with fewer comorbidities (63 % vs 80 %, respectively). At presentation, 17 % (877/5101) had chronic liver disease (CLD), 30 % (n = 1528) a history of regular alcohol use, 7 % (n = 371) were taking non-steroidal anti-inflammatory drugs and 46 %(n = 2339) antiplatelets and/or anticoagulants (18 % direct oral anticoagulants, 10 % heparin and 3 % warfarin). 83 %(n = 4228) patients had an inpatient endoscopy; 30 %(1277/4228) had peptic ulcer disease (PUD), 9 %(417/4228) had varices, and 27 %(1135/4228) received endoscopic therapy. Reasons for no endoscopy (n = 873) were: 56 %(n = 491) not clinically indicated/27 %(n = 234) outpatient procedure /18 %(n = 156) not for active treatment /7 %(n = 64) self-discharged /1 %(n = 7) transferred to other hospital /6 %(n = 51) death. 10 % (416/4228) had evidence of further in-patient bleeding after index endoscopy. 9 %(440) underwent > 1 endoscopy during inpatient stay; 0.8 %(n = 42) underwent surgery, 2.6 %(n = 134) had interventional radiology (IR) and 49 %(n = 2511) were transfused ≥ 1 packed red blood cells; 4 %(n = 212) platelets; and 5 %(n = 282) fresh frozen plasma for AUGIB. Median length of stay was 5 days (IQR 3-9). In-hospital mortality was 9 %(n = 461); 5.7 % in new admissions and 18.4 % in inpatients. Comparisons with the 2007 audit revealed significant differences in patient profiles in 2022, including an increase in co-morbid patients (67 % vs 50 %), higher prevalence of anticoagulant use (31 % vs 13 %), and a greater proportion with underlying CLD (17 % vs 9 %). A higher percentage of patients underwent inpatient endoscopy (83 % vs 74 %) in 2022, with reductions in PUD (30 % vs 36 %) and varices (9 % vs 11 %). There was a significant increase in those receiving endotherapies (27 % vs 24 %) and undergoing IR procedures (2.6 % vs 1.2 %), along with a lower likelihood of further in-patient bleeding after an index endoscopy (10 % vs 13 %), surgery (0.8 % vs 1.9 %), and in-hospital mortality (9 % vs 10 %). All differences were found to be statistically significant ($p < 0.05$).

Conclusions Despite a more co-morbid population, there was reduced recurrent bleeding, need for surgery and in-hospital mortality for AUGIB since 2007. These improvements may be associated with improved management and better endoscopic therapy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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Role of ESD and Other Novel Resection Techniques in Gastric and Duodenal Lesions

25/04/2024, 11:30 – 12:30 **Science Arena: Stage 1**

MP050 Freehand suturing during ESD for applying traction

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Aims Recently the technique of freehand suturing in GI endoscopy evolved by developments such as knotless barbed wire sutures and needle manipulators.

Beside closing of mucosal or complete wall defects of the GI tract one of our first thoughts was the use of the suture string to apply tension to the mucosa while doing ESD or other submucosal preparation. In the following we present the technique of freehand suture traction during ESD in an ex vivo porcine model.

Methods First, some electrocautery marks were applied to the mucosal surface to indicate the lesion. Afterwards using a hybrid knife (ERBE Elektomedizin Tübingen Germany) we gained access to the submucosal space and injected dyed saline solution. After preparing two entry points to the submucosal space at the proximal and distal part of the lesion we performed a suturing of the approximal part of the lesion using a barbed wire (V-Loc 180, ½ circle taper end needle 3-0, Covidien). Steering of the needle was performed using a distal attachment cap (MTW Endoskopie, Wesel, Germany) and a needle holder (Sutuart, Olympus, Hamburg, Germany). This barbed wire was then again sutured to the opposing site of the gastric lumen and carefully tensed until the mucosa at the lesion side performed a tenting thus opening the submucosal space for further preparation. Preparation was performed using the hybrid knife using precise sect and spray coagulation mode while each mucosal plane was cut after preparation of adjacent submucosa leading to a peel away of the growing resection flap using endo cut mode. In case the suture string lost the tension the barbed wire was carefully tensed again by just pulling the filament a little bit more through the suture tract thus, guaranteeing tenting and traction of the mucosal flap.

Results This is the first report of using a barbed wire freehand suturing to apply traction during ESD. This technique is easy to perform and has low costs.

Conclusions Advantages towards other techniques for applying traction is that the amount of tension can be adapted by just pulling the filament more through the mucosal surface. Another advantage is that the specimen is easy to restore from the body after finishing the resection and that it is clearly marked by the filament. This may help for better histopathologic orientation, too.

Conflicts of interest Olympus: medical devicesFujifilm contracting

MP051V Endoscopic resection of an extraluminal subepithelial tumor located on the anastomosis of a previous laparoscopic fundectomy

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DOI 10.1055/s-0044-1783061

Abstract Text A 58 years old patient presented with a 3 cm subepithelial lesion located at the antastomotic line in the fundus. The patient has undegone a laparoscopic fundus resection of a 5 cm gastrointestinal tumor (GIST) four years ago. The tumor was located extraluminally and wasn't visible in endoscopy. We marked the location of the tumor and formed a submucosal tunnel proximal in the esophagus till we reached the anatostomosis. We removed through the tunnel dozens of surgical staplers before we could localize the tumor. The tumor was then detached and succesfully removed. It proved out, it was a recurrence of the previous GIST. To our knowledge this is the first case of a complete endoscopic removal of a GIST recurrence on the surgical site at the gastric fundus [1].

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/250ef9af-0b84-4ea0-afd1-c739ae0398d2/Uploads/13821_SEL_fundus%20anastomosis.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

References

[1] Thomaidis T, Xiang A-Y, Lyros O et al. Endoscopic removal of an extraluminal gastrointestinal stromal tumor recurrence located on the surgical stapler line at gastroesophageal junction. Endoscopy 2023; 55: E896–E897

MP052V Submucosal tunneling endoscopic resection in retroflexion for gastric GIST of the fundus

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DOI 10.1055/s-0044-1783062

Abstract Text Endoscopic resection of gastrointestinal gastric tumors of the fundus is challenging due to the need for full-thickness resection and the difficulties for defect closure. Submucosal tunneling in direct view through the esophagus can be applied for esophageal tumors and gastric tumors of the cardia near the gastroesophageal junction. However for tumors located at the fundus it is not feasible. In this case report we present the resection of a gastric GIST located at the fundus with the application of STER in retroflexion combined with clip and band traction and clip and loop closure of the mucosal entrance. We believe that this modified approach has the all the advantages of STER and can be applied for locations where straight tunneling is not feasible.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/01bad468-d6bd-4b19-b91b-b84453031145/Uploads/13821_STER_in%20retroflexion%20ESGE%20Days.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP053V Large gastric superficial lesion in the fundic dome resected by endoscopic submucosal disection combining 'pocket creation method' and traction techniques

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DOI 10.1055/s-0044-1783063

Abstract Text An 80-year-old female presented with a large superficial lesion located in the fundic dome. First biopsies showed high-grade dysplasia (HGD). Endoscopic submucosal dissection was proposed to achieve en bloc resection. It was performed under general anaesthesia and various endoscopes with distal caps and endo-knives were used. The lesion was firstly approached in an antegrade fashion creating a 'pocket' from the cardia to the fundus, followed by retroflexion working assisted by 3 clip-line tractions. Coagulation was made with bipolar forceps. There were 5 milimetrical perforations, all succesfully clipped. *En bloc* resection was achieved and the pathological report confirmed a 90x60 mm HGD-lesion with free margins. Patient resumed oral intake 3 days after. Endoscopic follow-up 11 months later revealed no residual lesion.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/93ba7d8b-cccb-4c8a-8348-4bc7dce089f1/Uploads/13821_DSE_fund%20ESGE%20Days%20ok.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP054 Cost-Effectiveness Analysis of Full-Thickness Resection Device for Small Gastric Subepithelial Tumors

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DOI 10.1055/s-0044-1783064

Aims As prevalence of subepithelial tumor (SET) has steadily increased and new minimally-invasive resection techniques have emerged, the choice of surveillance versus removal poses dilemma for both patients and gastroenterologists. Full-Thickness Resection Device (FTRD) is a novel method that allows safe and effective removal of small SET in upper gastrointestinal tract. As international guidelines remain ambiguous on the management of small gastric SET,

this study aims to evaluate the cost-effectiveness of FTRD for managing small gastric SET ≤ 2 cm compared with the standard endoscopic surveillance.

Methods A provider's perspective cost-utility analysis was performed using a decision tree combined with the Markov model. The study population is patients with gastric SET ≤ 2 cm. Quality-adjusted life year (QALY) and event probabilities used in the model were gathered, prioritizing the Asian population from the literature. The cost was estimated by The Comptroller General's Department. Assuming the most prevalent diagnosis of gastric SET is GIST, three therapeutic approaches were analyzed, including (i) FTRD; (ii) Endoscopic biopsy at the time of diagnosis, and (iii) Conventional endoscopic surveillance for tumor progression. The incremental cost-effectiveness ratio (ICER) of 160,000 Baht (4,500 USD) and 100,000 USD per QALY based on Thailand's and US willingness-to-pay threshold were used to determine the cost-effective scenario. One-way sensitivity analyses were performed to explore the uncertainties and identify scenarios where FTRD is cost-effective.

Results Based on Thailand's willingness-to-pay threshold, FTRD was cost-effective for patients aged 55 and below. In individuals between the ages of 60 and 65, EUS-guided biopsy at the time of diagnosis to determine the necessity of surveillance was a cost-effective approach. However, for patients aged 70 years and older, neither intervention was cost-effective and surveillance is recommended. From a US perspective where cost of endoscopic procedure is much higher, FTRD was cost-effective in all scenarios, and the intervention was strongly dominant.

Conclusions Endoscopic resection using FTRD is a cost-effective strategy for managing small gastric SET and could be practically applied to both Thai and US population younger than 55 years old with a small gastric SET of unknown histology due to the need for longer duration for surveillance in this age group. The burden of not knowing definite diagnosis may outweigh the additional cost of FTRD thus the option of resection and biopsy should be individualized. [1–5]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP055V Endoscopic subserosal dissection of a large gastric GIST with risk factors

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DOI 10.1055/s-0044-1783065

Abstract Text An 87-year-old patient with an intraluminal-predominant gastric GIST displaying risk factors on endoscopic ultrasound (growth from 19mm to 31mm in 2 years and a necrotic focus). Endoscopic dissection around the GIST was performed using Splash M Knife. Due to involvement of the muscularis propria, subserosal dissection was performed. Endoscopic suturing with Apollo Overstitch was carried out. Due to the large lesion size (5cm), sample fragmentation was necessary for oral extraction. Pathology report revealed a low-risk GIST (< 5 mitoses/50 HPF, no necrotic foci).Endoscopic treatment of gastric GISTs > 3cm could be considered as an alternative in individualized cases.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/f4ef38e3-8f02-47d4-b5d6-c1837692e15d/Uploads/13821_GIST_dissection.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP056V Topflight Endoscopic Submucosal Dissection: a novel technique for the resection of gastric fundus tumors

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DOI 10.1055/s-0044-1783066

Abstract Text Recently, we described a new ESD technique, the "topflight ESD", that enables the resection of large lesions in the fundus, without the need for special instruments or devices. With this technique a tunnel is created from the distal esophagus and all the fundus submucosa is dissected through the tunnel. Herein, we describe 2 cases of fundus tumors resected with this technique. A patient had a 6 cm lesion in the fundus(Paris 0-IIa + b). The specimen was 75x50mm in size. The pathology revealed a mixed type, moderately differentiated adenocarcinoma SM2L0V0R0, pT1b. The other case had a 4 cm lesion in the gastric fundus(Paris 0-IIa + b). The specimen was 70x58mm in size. The pathology revealed a tubular type, poorly differentiated adenocarcinoma SM3L0V0R0, pT1b. Both patients were discharged asymptomatic on the following day. This technique might be considered as a option in such cases in the future. [1]

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/c103afe0-ec96-4cb6-8b2a-539deca9fba3/Uploads/13821_TF_LLR.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP057 A New Pre-Sealing Technique Reduces the Use of Coagulation Forceps in Third-Space Endoscopy: One-Stop Shopping

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Aims Third-space endoscopy (TSE) procedures are hampered by a significant rate of intra-procedural bleeding, affecting their duration and feasibility. The narrow field of endoscopic view and the imperfect hemostatic power of TSE devices limit effective intra-procedural hemostasis. Thus, large vessels (i.e., larger than the tip of the knife) usually required coagulation with dedicated coagulation forceps, before the subsequent dissection with the TSE knife. However, this requires device exchanges, slowing the TSE procedure and consequently increasing the risk of adverse events and the overall costs. To overcome these limits, we introduced a new technique of saline immersion (SI) vessel pre-sealing with the same knife and the same electrosurgical setting. In this study, we present the early results.

Methods This single-center historically prospective observational study was conducted by recruiting consecutive patients treated with Peroral Endoscopic Myotomy (POEM) for esophageal achalasia. They were compared with a historical cohort treated with the standard hemostatic methods. The SI vessel pre-sealing method consists of the application of electrocautery coagulation

with the tip of the knife under saline solution, which prevents the dissection effect, until the vessel is completely sealed, using a Hybrid-knife (HK) with Swift Coag E3 (89W) coagulation setting (Erbe Elektromedizin GmbH, Tübingen, Germany). The primary outcome was the rate of bleeding needing a re-intervention after a first coagulation attempt, with secondary outcomes focused on the rate of complete vessel coagulation, procedural length, use of dedicated hemostatic devices and adverse events (AEs).

Results A total of 21 patients were treated with the pre-sealing technique and compared with 22 standard technique additional patients. During the submucosal dissection phase of POEM were coagulated with the HK 195 blood vessels with a diameter greater than 1.2 mm (86 standard technique and 109 SI technique). Overall, no patients in the pre-sealing group required the need of coagulation forceps, while 6 patients required the use of this hemostatic device in the standard arm due to the size of the vessels or to treat a bleeding vessel (0/21 vs. 6/22; P-value = 0.02). In addition, the SI pre-sealing coagulation significantly decreased intra-procedural bleeding events needing re-treatment, demonstrating a 21 % relative risk (RR) reduction: effective coagulation was indeed significantly higher in this group compared to the conventional arm (91.74 % vs 73.26 %) (P = 0.0006). No significant differences were observed in total procedural time or safety profiles between the two techniques.

Conclusions The SI pre-sealing technique reduced the need for vessel coagulation retreatment compared to current practice. This technique also resulted in a significant reduction in the use of dedicated hemostatic devices, showcasing potential better cost-effectiveness. Procedural length and safety profile were not changed by the use of this novel mean of coagulation, and it can be therefore suggested a potentially beneficial adoption even by less experienced endoscopists.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP058 Resection of subepithelial gastrointestinal tumors by means of endoscopic surgery (ESD, STER, NOTES, LECS). A single center experience

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Aims Retrospective study of endosurgical resection of subepithelial tumors of the GI tract by means of endoscopic submucosal dissection (ESD), submucosal tunneling endoscopic resection (STER), laparoscopic endoscopic cooperative surgery (LECS), natural orifice transluminal endoscopic surgery (NOTES) in a non-academic private hospital in Greece by a single operator between 2016-2023, with extensive experience in ESD and third space endoscopy.

Methods 30 lesions were resected from 27 patients from the esophagus, stomach, duodenum and colon and rectum by ESD (24), STER (4), LECS (1), NOTES (1). The median age was 56.5 (36-81). Indications for resection were: 1) diagnosis of GIST or NET, 2) origin from the muscle layer without biopsy, 3) increasing size in follow-up, 4) obstruction, 5) patient's desire to avoid chronic follow-up. CT scan and/or EUS were performed for lesions > 1 cm. Poorly submucosal lesion were resected by means of ESD. Lesions originating from the muscle layer were resected by means of STER if tunneling was feasible. LECS was applied in one gastric case of the anterior gastric wall where the muscular defect could not be closed with clips. NOTES was applied for a gastric GIST of the posterior wall of the body and the defect was closed with loop and clips.

Results The median operation duration was 1.2 hours (0,5-4) and the median duration of hospitalization was 1 day (1-3). No complication was encountered. 2 patients presented with mild epigastric pain after LECS and NOTES. The median tumor size was 2.2 cms (0.6-7). Histology showed: GIST (4), leiomyoma (1), schwannoma (1), abrikossof (4), neuroendocrine tumor (7), fibroid inflammatory polyps (2), ectopic pancreas (2), lipoma (9).

Conclusions Endoscopic resection of gastrointestinal subepithelial tumors is feasible and safe by means of different endosurgical procedures based on the location and operator's experience

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP059 Cold snare polypectomy in the management of duodenal adenoma in familial adenomatous polyposis

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DOI 10.1055/s-0044-1783069

Aims Duodenal adenomas are frequent manifestations in individuals affected by familial adenomatous polyposis (FAP), being present in 30–90 % of FAP patients. Due to the specific risk of neoplastic transformation associated with duodenal adenomas, careful surveillance and management are essential. The Spigelman index (SI) score system, introduced in 1989, is utilized to predict the risk of duodenal cancer in FAP patients. Patients with a Spigelman score of IV face a higher risk of duodenal cancer and are advised to undergo pancreaticoduodenectomy. Endoscopic resection of duodenal adenoma can prevent the occurrence of duodenal cancer and recently the use of cold snare polypectomy has been proposed for the prevention of advanced duodenal lesions.
The aim of this study is to conduct a prospective evaluation of the safety and feasibility of cold snare polypectomy for the treatment of duodenal adenomas in patients with FAP.

Methods From September 2022 to October 2023, we prospectively enrolled all patients with FAP who underwent upper gastrointestinal endoscopy for the surveillance of gastric and duodenal lesions. The diagnosis of FAP was established based on genotyping information and/or clinical observations of colorectal polyposis. We aimed at identifying and removing all significant adenomatous duodenal lesions, defined as lesions exceeding 5 mm in diameter. For lesions ranging from 5 to 10 mm, we performed cold snare en-bloc polypectomy, while lesions exceeding 10 mm underwent cold snare piece-meal polypectomy. Upper GI endoscopies were conducted with conscious sedation or deep sedation as necessary. Follow-up endoscopy appointments were scheduled at 6-12 months based on the pathology report. Data on patient characteristics, lesion characteristics, details of endoscopic treatment, adverse events, pathologic findings, and Spigelman index (SI) were collected and evaluated

Results Overall, 230 upper gastrointestinal endoscopies were conducted in patients with FAP. Among these, 14 individuals (7 females, median age 53 years) had relevant duodenal involvement. All patients had previously undergone total colectomy. A total of 48 lesions were removed over 16 sessions of endoscopic resections. No significative adverse events were reported. Histology reports indicated low-grade tubular adenoma in 3 cases, low-grade tubular-villous adenoma in 7 cases, and high-grade tubular-villous adenoma in 5 cases. One patient, having a SI of IV at the index upper endoscopy had evidence of adenocarcinoma at histology and was referred for surgery. Follow-up endoscopy data were available for 33 % of patients. Follow-up examination showed stable SI in all cases without evidence of advanced lesions or significant fibrosis.

Conclusions Cold snare resection proves to be a safe and feasible technique for the endoscopic management of duodenal adenomas in patients with FAP. Even if more extensive studies are necessary to delineate the role of cold snare polypectomy in FAP, it appears that repeated endoscopic treatments may play a role in enhancing disease control.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Cholangio-pancreatoscopy: From diagnosis to treatment

25/04/2024, 15:30 – 16:30 Science Arena: Stage 2

MP060V Cholangioscopy as a rescue technique of a major basket failure during ERCP

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DOI 10.1055/s-0044-1783070

Abstract Text This is a unique case of cholangioscopy in the role of rescuer, as it managed to free the basket from the wedged stone of the common bile duct (CBD). A 47-year-old man underwent an ERCP due to difficult CBD stone. During ERCP we attempted to extract the stone using a basket through the cholangioscope. While pulling the basket, its wire was damaged. As a result, the basket with the wedged stone remained in the CBD, making it impossible for the endoscopist to manipulate it. Then, we cut the wire leaving the basket with the wedged stone in the CBD and we promoted the lithotripsy probe through the cholangioscope. We reached the stone, applied successfully Electrohydraulic Lithotripsy and set free the basket from the stone (Video). Finally, using a simple forceps we pulled the basket out and cleaned the duct from the rubbish.
Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/3164a787-db8d-4d06-82a7-c3604ba5ea26/Uploads/13821_FINAL_VIDEO%20Cholangioscopy%20as%20a%20rescue%20technique%20of%20a%20major%20bas....mp4
Conflicts of interest Authors do not have any conflict of interest to disclose.

MP061 Digital Single-Operator Pancreatoscopy Guided Laser Lithotripsy of Symptomatic Pancreatic Ductal Stones: A Single Centre Care Experience

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DOI 10.1055/s-0044-1783071

Aims Chronic calcific pancreatitis (CCP) is common cause of chronic abdominal pain. Pancreatic endotherapy is effective modality for symptomatic main pancreatic duct (MPD) calculi. Large MPD calculi (≥ 5 mm) may require additional therapy including extra-corporeal shock wave lithotripsy (ESWL), mechanical, laser or electrohydraulic lithotripsy (EHL). Few studies have reported effectivity of digital single operator pancreatoscopy (DSOP) guided EHL for MPD calculi. In this study, we aimed to evaluate the efficacy and safety of DSOP guided laser lithotripsy for symptomatic MPD calculi.
Methods Data of patients who underwent DSOC guided laser lithotripsy for symptomatic MPD calculi were included from February 2020 – December 2022. Endoscopic reterograde pancreatography was performed, and DSOP (Spy glass DS, Boston Scientific Corp., Massachusetts, USA) was passed through duodenoscope and laser lithotripsy was performed (Figure 1 A-F). The primary end point was complete stone clearance (CSC). Secondary end points were MPD decompression, improvement in pain measured with the visual analogue score (VAS), technical failure and adverse events (AEs).
Results A total 15 [Median age 32 (12-75), male; 10] CCP patients underwent DSOC guided laser lithotripsy (Table 1). A CSC was achieved in 11 (73.3 %) patients and MPD decompression was achieved in 13 (86.7 %) patients. Overall pain relief was achieved in 12 (80 %) at 6 months of follow- up, with complete pain relief in 9 (60 %) and partial pain relief in 3(20 %) Patients. Technical failure was seen in 2 (13.3 %) patients. In 1 patient because of head stricture, pancreatoscope could not be passed and he underwent surgery and another patient had persistent pain after partial PD clearance, so he underwent ESWL. AEs are seen in 4 (33.3 %) patients and there were no severe AE's seen.
Conclusions DSOP-guided endotherapy is safe and effective in selected patients with symptomatic MPD calculi. It significantly reduces pain and could be considered as an alternative to other ERP techniques and lithotripsy.
Conflicts of interest Authors do not have any conflict of interest to disclose.

MP062V Direct colangioscopy with extraction of biliary stones using a double-balloon enteroscope in patient with surgical altered anatomy: yes, we can!

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DOI 10.1055/s-0044-1783072

Abstract Text A 83 years-old-woman with previous partial gastrectomy with Roux-en-Y gastro-jejunostomy was hospitalized for abdominal pain and jaundice. MRCP showed common bile duct dilatation (CBD) with gallstones inside. Considering the surgically altered anatomy (SAA), we perform ERCP using a double-balloon enteroscope (BE-ERCP). After the visualization of the major papilla and selective cannulation of CBD, cholangiography showed a filling defect inside compatible as a stone of 12 mm. Biliary sphincterotomy was executed by rotating a regular sphincterotome and, after endoscopic papillary balloon dilation, a direct access of the enteroscope into the CBD was thecnically executed. The stone was extracted under direct endoscopic view using a balloon catheter without any complications. BE-ERCP is a feasible and safe therapeutic procedure in SAA [1], however it requires more procedural time and higher technical skills.
Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/db418da9-8a91-43e9-9696-d237e83e2a26/Uploads/13821_Direct_cholangioscopy%20OBSCURED.mp4
Conflicts of interest Authors do not have any conflict of interest to disclose.
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MP063 Diagnostic acuity of cholangioscopy in the evalution of indeterminate biliary strictures

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DOI 10.1055/s-0044-1783073

Aims We sought to determine the diagnostic value of cholangioscopy in the distinction between begnin and malignant etiologies of biliary strictures. As a primay outcome we established the sensitivity and specificity of the optic diagnostic and biopsies directed through cholangioscopy in diagnosing malignant etiologies. As the secondary outcome we defined the ocurrence of complications related to the procedure.
Methods Retrospective analysis of the patients with indetermined biliary stricture, defined as a biliary stricture diagnosed by imaging without an histolopatologic diagnosis, submitted to cholangioscopy between 2016 and 2023. A benign stricture was assumed when there was exclusion of neoplastic tissue in the surgical ressection specimen or the imaging evalution after one year demonstrated stability of the lesion. A malignant stricture was assumed when there was confirmation of neoplastic tissue in the surgical ressection specimen or the imaging evalution after one year demonstrated progression of the lesion. The population was caractherized by age and gender. The strictures were classified by location as proximal if they were located to the hepatic hilum or less than two centimeters distal to the hilum and as distal if they were located more than two centimeters below the hilum. The cholangioscopic findings included the presence of neovascularization, villous projections, friability and evidence of hiperproliferation. The optic diagnosis was classificated as benign or malig-

nant according to the report elaborated by the gastroenterologist. We calculated the values of sensitivity (S), specificity (E), negative predictive value (NPV) and positive predictive value (PPV) in percentage of the optic diagnosis and the biopsies directed through cholangioscopy. Finally, we calculated the diagnostic acuity of distal strictures and proximal strictures.

Results There were included a total of 40 patients (57,5 % male gender, age 66,55 ± 17,02 years). 30 % of the strictures were malignant (n = 12), confirmed in the surgical ressection specimens by the pathologist. The optic diagnosis obtained: S = 91,7 %; E = 89,3 %; NPV = 96,2 %; PPV = 78,6 %. The biopsies directed through cholangioscopy obtained: S = 66,7 %; E = 100 %; NPV = 83,3 %; PPV = 100 %. There is importante to note a missed diagnosis' rate of 8,3 % (n = 1). The diagnostic acuity of proximal strictures obtained was 100 %, against a diagnostic acuity of 84,6 % of distal strictures (p-value = 0,17). We had three procedures with associated complications, which were: mild acute pancreatitis (n = 1), hemobilia (n = 1) e colangitis (n = 1), treated conservatively. [1]

Conclusions Cholangioscopy allows the exclusion of neoplasia, avoiding complications associated with unnecessary surgical procedures and the timely diagnosis of malignant etiology, preventing delays in treatment. We found a decrease in the diagnostic acuity of distal strictures, altough it was not statistically significant in our sample.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP064 Cholangioscopy-guided lithotripsy vs. conventional therapy for difficult bile duct stones: An observational cohort study

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DOI 10.1055/s-0044-1783074

Aims Although endoscopic retrograde cholangiopancreatography (ERCP) is the main treatment of common bile duct (CBD) stones, succeeding clearance of the CBD in the majority of cases, the presence of difficult stones can limit its results. Cholangioscopy-guided lithotripsy has recently offered encouraging results in difficult CBD stone removal. Aim of our study was to compare cholangioscopy-guided lithotripsy vs. conventional therapy for difficult bile duct stones treatment.

Methods This is an observational study, from January 2020 to October 2023, including all patients with difficult CBD stones, defined as a stone diameter ≥ 10mm and/or multiple stones of distal CBD.

Results Totally 333 patients were included (M/F: 162/171, mean age 62 ± 14.5 [22-90] years). Out of 333 ERCPs, 141 patients (42.3 %) were admitted with difficult CBD stones. The mean age of the patients was 63 ± 13.5 years. We performed a large sphincterotomy (LS) alone in 53 patients (37.5 %) and an endoscopic papillary balloon dilation at 13mm (EPBD) after an endoscopic sphincterotomy (EST) was performed in 22 patients (15.6 %). The first session successful endoscopic clearance rate of LS and the combination of EST and EPBD were 75.5 % (40/53) and 72.7 % (16/22) respectively. In 66 separate cases, in addition with those 19 cases that both previous techniques failed, we performed cholangioscopy and electrohydraulic lithotripsy with a success rate (SR) > 96 % (82/85). The remaining 3 cases underwent a second cholangioscopy after plastic stenting in order to be fully treated. No complication of EPBD, LS or EHL was reported during the 24-hour hospitalization.

Conclusions Cholangioscopy-guided lithotripsy was superior (p = 0.00006) compared to conventional therapy for the treatment of difficult bile duct stones. Cholangioscopy-guided lithotripsy not only constituted an effective assist for difficult CBD stones after EPBD or LS, but also achieved a high first session successful endoscopic clearance rate (> 96 %). Cholangioscopy is a technique that should be widely performed due to its high SR and low complication rate.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP065V Diagnosis of intrabiliary metastasis of colorectal cancer by cholangioscopy

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Abstract Text Two cases of intrabiliary metastasis of colorectal cancer (CRC) diagnosed with endoscopic retrograde cholangiopancreatography (ERCP) and cholangioscopy using the SpyGlass DSII system. In case 1, ERCP showed a long asymmetric stricture of the common bile duct and dilatation of intrahepatic ducts. Cholangioscopy visualized a mass arising from the choledochal wall, with villous pattern and irregular vessels. In case 2, the cholangiography showed stenosis of the common hepatic duct and retrograde dilatation. Cholangioscopy visualized a non transversable stenosis, with erythematous mucosa and neovessels. Biopsies confirmed metastases of colorectal adenocarcinoma in both cases. Intraductal biliary growthis an exceptional localization of CRC metastases and differentiating it from cholangiocarcinoma is a diagnostic challenge in which cholangioscopy is a very valuable tool. [1–3]

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/36e7d114-6f64-4f91-85c9-609a3b903a0a/Uploads/13821_video_completo%20(1).mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP066 Cholecystoscopy and LAMS removal is associated with higher stone-related complications as compared to long term LAMS in surgically unfit patients with EUS-GBD performed for acute calculous cholecystitis

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DOI 10.1055/s-0044-1783076

Aims EUS-GBD with lumen apposing stent (LAMS) has been included in ESGE and ASGE guidelines for acute calculous cholecystitis for patients who are unfit for surgery. Whether to perform cholecystoscopy for stone removal and LAMS removal, or the LAMS should be kept for long term is still a controversy. The aim of this study is to compare the outcomes of each group.

Methods This was a retrospective study including all surgically unfit patients who suffered from acute calculous cholecystitis with EUS-GBD performed from Dec 2013 to Jun 2023 in Prince of Wales Hospital (PWH) and Hospital Universitario Rio Hortega (HURH). The protocol of PWH is to repeat cholecystoscopy until stones cleared and LAMS removal (Group A). The protocol of HURH is for long term LAMS (Group B). The primary outcome was recurrent biliary events (including cholecystitis, cholangitis, biliary pancreatitis). Secondary outcomes

include demographics, previous ERCP and sphincterotomy, early and late complications, hospital stay, emergency room visits, readmissions and follow-up time.

Results 65 patients from PWH (Group A) and 96 patients from HURH (Group B) were recruited. 19 patients from PWH crossovered to Group B while 8 patients from HURH crossovered to Group A. As a result, there were 54 patients in Group A and 107 patients in Group B. *20/54 (37.0 %) in Group A and 14/107 (13.1 %) in Group B suffered from recurrent biliary event during follow-up (adjusted for previous ERCP and sphincterotomy with logistics regression; p < 0.001).* Figure 1 shows the Kaplan Meir curve. There was no difference between early complications (< 30d) and stent-related complications. However, there were *more late complications from Group A (22/54 (40.7 %) vs 8/107 (7.5 %); p < 0.001).* The no. of emergency visits (5.2 (6.8) vs 2.2 (2.4); p = 0.001) and stone-related readmissions (0.7 (1.1) vs 0.2 (0.47); p < 0.001) were significantly more in Group A. In Group A, 1.17 (0.6) cholecystoscopies were required to clear all the stones. 22/54 (40.7 %) patients in Group A had recurrent gallstones on imaging. The mean follow-up time was 42.2 (30.0) days and 26.2 (23.3) days for Group A and B respectively (p < 0.001). Table 1 showed the details of the outcomes.

Conclusions Cholecystoscopy for stone removal and subsequent LAMS removal was associated with significantly more recurrent biliary events after EUS-GBD when compared to long term LAMS. There was no increase in stent-related complications in the long term LAMS group. Long term LAMS can be considered after EUS-GBD for surgically unfit patients suffering from acute calculous cholecystitis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP067V Pancreatoscopy for the diagnosis of main duct IPMN: a case series (with video)

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DOI 10.1055/s-0044-1783077

Abstract Text We present three cases of main pancreatic duct (MPD) IPMN successfully diagnosed with single-operator pancreatoscopy (SOP). Patients (two male, one female; mean age 66 years) were referred for dilated MPDs (mean diameter 12 mm) at cross sectional imaging; SOP demonstrated typical features of IPMN (thick mucus in the duct, villous projections and mural nodules) and permitted tissue acquisition with microforceps biopsies (Spybite, Boston Scientific, US), confirming the presumed diagnosis allowing an appropriate treatment. Procedures were uneventful and patients were all discharged the day after the procedure [1].

In expert hands, SOP can be a useful and safe tool for the differential diagnosis of a dilated MPD.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/17b4d8cf-24f9-40eb-9959-17d774c2c181/Uploads/13821_Pancreatoscopy_ESGE.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP068 Interest of pancreatoscopy in the endoscopic management of chronic pancreatitis: results of a prospective study

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DOI 10.1055/s-0044-1783078

Aims In chronic pancreatitis (CP), stones and strictures of the main pancreatic duct (MPD) can cause chronic abdominal pain and recurrent acute pancreatitis. In some cases, endoscopic treatment may be indicated with uncertain efficacy due to the high risk of recurrence. This risk is correlated with residual calculi and stenosis in the CP. The aim of this study was to compare the performance of pancreatoscopy versus pancreatography in diagnosing residual calculi and strictures in the MPD at the end of endoscopic treatment.

Methods In this prospective, single-centre study, 27 patients requiring endoscopic treatment of their symptomatic chronic pancreatitis were included from July 2021 to February 2023 . The primary endpoint was the absence or presence of calculi and/or MPD stenosis. On definitive removal of the pancreatic prosthesis, pancreatography and pancreatoscopy were performed at the same endoscopy. Patients were followed up for 2 years to assess the clinical efficacy of the endoscopic treatment.

Results 23 patients had CP of alcoholic origin and 4 of undetermined origin. All patients had stones and stenosis of the MPD, responsible for chronic abdominal pain. 2 patients were lost to follow-up. The mean age was 60.07 (28-82) years. Symptomatic stones or strictures were located in the head (65 %), body (35 %) and tail (10 %). The lenght of endoscopic treatment was 16.8 (10-24) months and the number of ERCPs per patient was 3.4 (1-8). Endoscopic treatment was effective in 80 % of patients. Complete pancreatoscopy was not possible in 3 patients because of stenosis of the MPD that could not be crossed after dilatation. Pancreatoscopy revealed residual calculi, not visualised by pancreatography, in 13 patients (48 %). All the stones were removed using spybasket (3 patients after a 2nd pancreatoscopy). Pancreatoscopy was used to modify the therapeutic management of 15 patients (55 %): 2 for the treatment of residual MPD stenosis by dilatation and insertion of new pancreatic stents and 13 for the treatment of residual pancreatic calculi. Pancreatoscopy did not appear to add any morbidity.

Conclusions Pancreatoscopy may be of interest at the end of endoscopic treatment of chronic pancreatitis, as it is more effective than pancreatography in diagnosing residual pancreatic calculi in the MPD.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP069 Accuracy of digital single-operator cholangioscopy for the diagnostic strategy for indeterminate biliary stricture

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DOI 10.1055/s-0044-1783079

Aims Indeterminate biliary strictures diagnosis is challenging despite the availability of high-resolution imaging techniques. A delay in the diagnosis of malignant strictures may lead to a change in prognosis and unnecessary surgery in benign cases (up to 15-24 %). The aim of our study was to determine the usefulness of cholangioscopy to evaluate indeterminate biliary stricture and/or repletion defects suggestive of malignancy. We evaluated weather visual information, with or without pathological anatomy, leads to a change in patient management.

Methods Prospective, observational, single-centre study between 2016 and 2023. All patients with indeterminate biliary stricture who underwent ERCP-digital single operator cholangioscopy were included, Statistical analysis: the Fisher exact test was used for proportions and a P < 0.05 was considered significant. The diagnostic performance of the visual impression to characterize stenosis (Mendoza visual classification), and to exclude intracholedocal lesions was evaluated.

Results Thirty-four cholangioscopies were performed in 34 patients. Technical success was 100 %. Clinical management of patients: 9 cases underwent surgery for suspected malignancy (confirmed); 10 cases showed no intraductal lesions; 15 cases were benign strictures treated endoscopically with fully covered met-

al biliary stents. All patients had a minimum follow-up of 1 year. Visual findings were: stenosis suggestive of benignity 42 %, absence of intraductal lesions 29.4 %, irregular surface with/without ulceration 38.2 %, dilated and tortuous vessels 35.3 %, intraductal papillary projections 26.5 %, surface disruption 23.5 % and fibrosis 14.7 %. The sensitivity of visual diagnosis was 90.9 %, specificity 82.9 %, positive predictive value (PPV) 71 %, negative predictive value (NPV) 95 %. Biopsies were performed in 73.5 % of the cases and sufficient material was obtained for diagnosis in 96 % of cases. The sensitivity of histology was 81 %, the specificity of 100 % and the positive predictive value of 100 %. The strongest predictive criteria for malignancy were irregular surface ($P < 0.001$) with PPV 100 % and NPV 88.5 %, followed by tortuous/anomalous vessels ($P < 0.001$) with PPV 75 % and NPV 91 %.

Conclusions Cholangioscopy is very useful in the multidisciplinary diagnosis of indeterminate biliary strictures, with a high negative predictive value (95 %). The presence of an irregular surface has a high positive predictive value (100 %) to suspecting malignancy. The absence of anomalous vessels has a high negative predictive value (91 %). Cholangioscopy may avoid unnecessary surgery and might fasten the diagnosis when malignancy is suspected by visual diagnosis alone.

Conflicts of interest Authors do not have any conflict of interest to disclose.

From AI diagnosis to advanced therapy

25/04/2024, 15:30 – 16:30 **Science Arena: Stage 1**

MP070 Comparative Evaluation of Artificial Intelligence and Endoscopists' Accuracy in Endoscopic Ultrasound for Identifying Normal Anatomical Structures: A Multi-Institutional Cross-Sectional Study

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DOI 10.1055/s-0044-1783080

Aims Endoscopic ultrasound (EUS) has emerged as a powerful diagnostic and therapeutic tool in gastroenterology, providing detailed images of the structure's layers, as well as nearby structures. However, EUS is operator-dependent and variability in operator proficiency results in discrepancies in diagnostic accuracy. Artificial intelligence (AI) can be trained to process and interpret EUS images in real-time, potentially mitigating the operator-dependent variability and improving diagnostic accuracy. Moreover, AI can analyze vast datasets offering a level of consistency and efficiency that is challenging for human operators to match. The aim of this study is to compare the diagnostic accuracy of an AI-based model (AIWorks-EUS, mdconsgroup, Guayaquil, Ecuador) against that of expert and nonexpert gastrointestinal endoscopists visual impression in the identification of normal anatomical structures during EUS procedures.

Methods A multi-institutional, cross-sectional, comparative study designed to assess the diagnostic accuracy of the AIWorks-EUS (mdconsgroup, Guayaquil, Ecuador), in identifying normal anatomical structures during EUS procedures compared to that of endoscopists of different expertise. Consecutive patient videos of linear-array EUS were included for analysis. Then, the video dataset was reviewed by 9 endoscopists (5 expert endoscopists and 4 nonexpert endoscopists (<250 EUS procedures), who were blinded to the AI model interpretations. Finally, their visual impression was compared to the observation outputs provided by the AI models.

Results A total of 29 normal anatomic structures were evaluated by the endoscopists and the AIWorks-EUS software in 39 videos of linear-array EUS. The software reported an observed agreement (OA) of 100 % in 15/29 structures (4/9 mediastinal window, 6/12 in gastric window, 5/8 in duodenal window). Subcarinal space and portal vein (gastric window) obtained the lowest OA (92.35 %). The AIWorks-EUS software obtained a pooled sensitivity, specificity, positive (PPV) and negative predictive value (NPV), and OA for anatomical structure recognition of 95.2 %, 99.3 %, 97.9 %, 98.4 %, and 98.2 %, respectively. Additionally, the software obtained higher diagnostic accuracy than expert and nonexpert endoscopist ($P < 0.05$). Agreement between endoscopists and the AI per organ evaluated was obtained, with a difference of 18 % between the organ with higher agreement (Aorta) and the lower agreement (Ampulla). [1–3]

Conclusions The EUS-based AI model achieved higher diagnostic accuracy than both expert and nonexpert endoscopists in the identification of normal anatomical structures. This model can provide assistance to both groups during live procedures, and studies evaluating its use for training should be conducted to evaluate its application in EUS training programs.

Conflicts of interest Carlos Robles-Medranda is a key opinion leader and consultant for Pentax Medical, Steris, Medtronic, Motus, Micro-tech, G-Tech Medical Supply, CREO Medical, and mdconsgroup. Issac Raijman is a speaker for Boston Scientific, ConMed, Medtronic, and GI Supplies; advisory board member for Micro-Tech; co-owner of EndoRx. Tyler M. Berzin is a consultant for Medtronic, Boston Scientific, Wision, A.I., Magentiq Eye, and RSIP Vision. The other authors declare no conflicts of interest.

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MP071 Development of a capsule endoscopy automated scoring system for small bowel and colon inflammation in Crohn's disease patients using AI

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Aims Capsule endoscopy (CE) is a valuable tool for assessing inflammation in patients with Crohn's disease (CD). The current standard for evaluating inflammation are validated scores like Lewis score (LS), Capsule Endoscopy Crohn's Disease Activity Index (CECDAI) and ELIAKIM. Recent advances in artificial in-

telligence (AI) have made it possible to automatically select the most relevant frames in capsule endoscopy. In this study, our objective was to develop an automated scoring system using CE images to objectively grade inflammation.

Methods Pan-enteric CE videos (PillCam Crohn's) performed in CD patients between 09/2020 and 01/2023 were retrospectively reviewed and LS, CECDAI and ELIAKIM scores calculated. We developed a convolutional neural network based automated score consisting in the percentage of positive frames selected by the algorithm (for small bowel and colon separately). We correlated clinical data and the validated scores with the artificial intelligence generated score (AIS).

Results A total of 61 patients were included. The median SL was 225 [0-6,06],CECDAI was 6 [0-33], ELIAKIM was 4 [0-38] and SB_AIS was 0.5659 [0-29.45]. We found a strong correlation between SB_AIS and LS, CECDAI and ELIAKIM scores (Pearson's r = 0.751, r = 0.707, r = 0.655, p = 0.001). We found a strong correlation between SL and ELIAKIM (r = 0,768, p = 0.001) and very strong correlation between CECDAI and SL scores (r = 0,854, p = 0.001) and CECDAI and ELIAKIM (r = 0,827, p = 0.001).

Conclusions Our study showed that the AI-generated score had a strong correlation with validated scores, indicating that it could serve as an objective and efficient method for evaluating inflammation in CD patients. As a pre-proof study, our findings provide a promising basis for future reffining a CE score that can accurately correlate with prognostic factors and aid in the management and treatment of CD patients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP072 The impact of artificial intelligence-assisted blind spot monitoring on neoplastic lesions detection in gastroscopy without time constraints: a prospective, randomized controlled, non-inferiority study

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Aims The main reasons for missed early gastric cancer and precancerous lesions are insufficient inspection time and lack of knowledge of the anatomical landmarks of the upper gastrointestinal tract by endoscopists, which lead to blind spots during the gastroscopy. In our previous study, we developed an artificial intelligence(AI) system based on deep learning to monitor the blind spots in real time during gastroscopy.The European Society of Gastrointestinal Endoscopy Quality Improvement Initiative for gastroscopy recommend that gastroscopy should be no less than 7 minutes. However, in countries or regions with large populations and shortages of health care and medical service, high-level hospitals carry heavy workloads, and are therefore unable to have sufficient time for inspections, resulting in uneven quality of gastroscopy. The aim of this study was to explore whether AI-assisted blind spot monitoring can shorten the inspection time while not compromising lesion detection rate.

Methods Prospectively recruited patients undergoning gastroscopy for diagnostic, screening, and surveillance. Patients were randomly assigned with or without the assistance of AI. The control group had no AI assistance and the negative inspection time without biopsy was no less than 7 minutes. The primary hypothesis was to ascertain that the detection rate of neoplastic lesions in the AI group was not inferior to that of the control group. The secondary outcome was the inspection time. Endoscopists were categorized as the novices(< 400 cases of gastroscopy experience) and the skilled(> 700 cases of gastroscopy experience) in this trail. [1–2]

Results A total of 1162 patients were prospectively recruited and d randomized at Renmin Hospital of Wuhan University from July 3, 2023 to November 17, 2023. 560 and 528 patients in the AI and control groups were analyzed, respectively. The detection rate of neoplastic lesions in the AI group was not statistically different from that of the control group (3.04 % vs 2.65 %, $p > 0.05$), but the median inspection time was shortened by about 1 min 30 sec for both novice and skilled endoscopists in the AI group (the novices: 6 min 45 sec vs 8 min 14sec; the skilled: 5min 52 sec vs 7min 35sec)

Conclusions AI can assist in improving the efficiency of gastroscopy without compromising the quality, which provides crucial evidence for the application of AI in high-level hospitals with heavy workload.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP073 Understanding Patients' Current Acceptability of Artificial Intelligence During Colonoscopy for Polyp Detection: A Single Center Study

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Aims Detection and accurate classification of neoplastic and non-neoplastic polyps are critical for appropriate management for patients undergoing colonoscopy. [1] Endoscopist expertise is variable and may be augmented by artificial intelligence (AI), including computer-aided detection (CADe) and diagnosis (CADx). [2] However, there are reservations about AI implementation into medical care due to concerns about performance (particularly for polyp subtypes), liability, trust, and bias. [3, 4] Data is lacking regarding patients' perspectives. Our aim was to understand patients' familiarity and acceptability of AI during colonoscopies.

Methods In this cross-sectional survey study, we developed and administered a REDCap survey to outpatients undergoing colon cancer screening/surveillance colonoscopies at Mayo Clinic-Rochester from September to November 2023. After defining AI terminology and a brief background on the topic, patients completed the survey prior to colonoscopy. The survey included binary and 5-point Likert-scale questions related to perspectives regarding AI. Patient demographics, obtained with the survey, were summarized and responses assessed univariately using chi-square or Kruskal-Wallis rank sum test. We used multivariable logistic regression with backwards elimination to predict patients' sentiment towards AI.

Results 291 participants (44 % male, mean age 59.7(range 28-83), 85.9 % white) participated in the survey. Most participants were at least somewhat familiar with AI (50.9 %), felt AI was at least somewhat important for physicians to utilize (59.1 %), and would lead to better health outcomes (51.4 %). Most participants were at least somewhat comfortable with a physician's (96.2 %) or CADe's (86.9 %) polyp detection, but less were at least somewhat comfortable with physicians (54.0 %) or CADx (48.9 %) leaving a likely benign polyp. Fewer patients (36.6 % & 32.9 %) were at least somewhat comfortable with physicians or CADx, respectively, in the resect & discard (R&D) strategy. Those with advanced degrees were more familiar with AI and thought it would improve health ($p < 0.05$), and males were more comfortable with R&D ($p < 0.05$). Interestingly, employment, white race, and a history of cancer did not substantially impact responses. Using multivariate regression, predictors of believing AI will improve health included those with comfort with CADe ($p < .001$) and CADx R&D ($p < .009$). Predictors of comfort with R&D included older age, male sex, and believing AI would improve health (all $p < 0.05$). Similarly, those comfortable with CADx R&D had 3.58 times the odds of being comfortable with a leave in

situ approach as well (p < 0.001). Those undergoing their first colonoscopy were less likely to believe AI is important for healthcare (p = 0.028). Those that had a personal/family history of cancer were significantly less likely to believe AI would lead to better health outcomes (OR = 0.40, 95 % CI: 0.17-0.90, p = 0.026).

Conclusions Patients are generally familiar and comfortable with AI though demographic differences exist. While many are comfortable with CADe, fewer accept CADx tools in clinical practice.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP074 Hybrid Argon Plasma Coagulation in the Treatment of Barrett's Esophagus: a Meta-analysis and Systematic Review

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Aims Radiofrequency ablation is a widely used technique for ablating flat dysplastic Barrett esophagus. Hybrid-APC (H-APC) is an emerging technique, which combines argon plasma coagulation with saline injection prior to ablation therapy to minimize damage to the muscular layers. Our goal was to conduct a systematic review of existing literature to assess the safety and efficacy of H-APC.

Methods Electronic databases (Medline, Scopus, EMBASE) were searched up to July 2023. Efficacy outcomes included initial and long-term (ranging from 12 to 24 months) complete eradication of intestinal metaplasia (CEIM). Safety outcomes included the rate of adverse events, such as stricture, bleeding and perforation, and the tolerability profile. Outcomes were assessed by pooling data using a random or fixed-effect model, according to the degree of heterogeneity, to obtain a proportion with a 95 % confidence interval.

Results Six studies, enrolling 331 patients, were eligible. The overall pooled rate of initial complete eradication of intestinal metaplasia (CEIM) was 86.3 % (95 % C.I. 0.78940, 0.93729, I^2 = 74.54 %), with long-term CEIM being 75.5 % (95 % C.I.: 0.67639, 0.83340, I^2 = 29.24 %). The overall pooled rate of adverse events was 3.6 % (95 % C.I. 0.01602, 0.05591, I^2 = 0 %), with the risk of stricture, bleeding, and perforation of 3.2 % (95 % C.I. 0.01343, 0.05143), 0.87 % (95 % C.I. 0.00124, 0.01857), and 0.87 % (95 % C.I. 0.00124, 0.01857) respectively. The overall pooled rate of patients reporting pain and discomfort after the entire ablation cycle was 30.5 % (95 % C.I. 0.15289, 0.45647, I^2 = 84.9 %).

Conclusions Hybrid-APC demonstrates promising efficacy and safety, with a favorable patient tolerability profile. This analysis highlights its potential role as a new ablative technique for patients with Barrett esophagus.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP075 Hot vs cold EMR: a well-known dualism in a north-eastern Italian experience

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Aims Cold-EMR is nowadays thought to be associated with similar technical success rate and lower incidence of adverse events when compared with Hot-EMR. In our study, we aimed at comparing hot and cold-EMR, performed for colonic laterally spreading tumors (LST) and duodenal adenomas.

Methods We conducted a monocentric retrospective study, enrolling all patients treated with hot-EMR or cold-EMR for LST or duodenal lesion larger than 10 mm in diameter, between January 2020 and November 2023 at Sant'Antonio Hospital in Padua. Chi-square test, Fisher Test and T-test were performed for categorical variables.

Results During the study period, 268 EMR were performed (n = 224 hot-EMR, n = 44 cold-EMR). Two groups were homogenous according to mean lesion diameter (mm) (25.60 ± 12.48 vs 24.36 ± 15.19, p = 0.2).

The overall incidence of post procedural adverse events was significantly higher in hot-EMR group rather than cold-EMR group (26 % vs. 7 %; RR 3.76, p = 0.018). Total bleeding events (early and delayed) were significantly more frequent after hot-EMR (21.9 % vs. 6.8 %; RR 3.22, p = 0.04). Perforation occurred only in the group of patients in which was performed hot-EMR (n = 8; 3.6 %) with a significant statistical difference (p = 0.001). Mean white blood cell count 24 hours after the procedure was significantly lower in cold-EMR group compared to hot-EMR (7.7 ± 3.16 days vs 8.7 ± 2.7 days; p = 0.04). Our study also highlighted that cold-EMR significantly reduced procedure to discharge mean time compared to lesions removed with hot-EMR (2 ± 1.12 days vs. 2.79 ± 2.5 days; p = 0.02). Besides, analysis of lesion recurrence rate did not show any significant statistical difference between the two techniques (4.5 % in hot-EMR vs. 2.3 % in cold-EMR; RR 1.95, p = 0.50).

Conclusions Our cohort analysis confirmed that cold-EMR is a safer resective technique, resulting in lower complication rate compared to hot-EMR, without a significant increase in recurrence rate.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP076 Clinical Course of Intraprocedural Perforation Caused by Gastric and Colorectal Endoscopic Submucosal Dissection

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Aims Although endoscopic submucosal dissection (ESD)is a minimally invasive treatment for gastrointestinal digestion, perforation is generally considered to be associated with a higher risk of complications. While some cases can be treated conservatively, others require drainage or surgical treatment. The aim of this study was to investigate the factors that influence the clinical course after perforation during gastric and colorectal ESD.

Methods During the period from 2021 to 2023, we performed ESD procedures on a total of 3251 cases, including gastric 1971 cases and colorectal 1280 cases. Among these cases, perforation occurred in 43 instances (1.3 %). We conducted a retrospective comparative study, categorizing the cases into two groups based on the manifestation of symptoms: the symptomatic group (with symptoms such as body temperature ≥ 37.5 degrees or Numerical Rating Scale ≥ 5 abdominal pain) and the asymptomatic group.

Results In all cases, the perforation was closed with a clip and ESD was completed. 42/43(98 %) could be treated conservatively. In the symptomatic group (n = 16) compared to the asymptomatic group (n = 27), there were no significant differences in age (72.8 vs. 70.7 years, p = 0.39), male-to-female ratio (6 (38 %) vs. 12 (44 %), p = 0.659), resection specimen size (52.9 (15-115) mm vs. 41.1 (16-80) mm, p = 0.29), lesion size (40.7 (12-110) mm vs. 31.0 (12-70) mm, p = 0.29), ESD procedure time (100.6 (10-200) min vs. 81.2 (7-170) min, p = 0.30), perforation size (2.3 (1-10) mm vs. 1.3 (1-2) mm, p = 0.86), and macroscopic type (nodular type lesion: flat lesion) (2:14 vs. 5:22, p = 0.49). In all cases of perforation during ESD, successful closure using clips was achieved, allowing completion of the ESD procedure. The time required for perforation closure was significantly longer in the symptomatic group compared to the asymptomatic group (46.6 (6-129) min vs. 12.3 (2-36) min, p < 0.01). The white blood cell count was higher in the symptomatic group (10956 (5900-21300)/µl vs. 8562 (4500-15200)/µl, p = 0.03). Furthermore, the symptomatic group had a longer duration until the initiation of postoperative diet (2.8 (1-6) days vs. 1.9 (1-6) days, p = 0.03) and a prolonged hospital stay until discharge (6.2 (4-16) days vs. 4.0 (2-7) days, p < 0.01). Only one case in the symptomatic group required surgical treatment for perforation. One case in the symptomatic group that required surgery was due to worsening peritonitis. [1–2]

Conclusions The time required for closure of the perforation affected the appearance of postoperative symptoms. In intraoperative perforation, it is important to close the perforation site in the shortest possible time for a good clinical course.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP077 Technical performance of double-balloon enteroscopy (DBE) in patients with surgically altered anatomy– a 5-year tertiary referral centre experience

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Aims Double-balloon enteroscopy (DBE) is the gold standard for minimally invasive investigation and management of a vast array of small bowel (SB) pathology [1]. However, surgically altered gastro-intestinal anatomy may hinder deep enteroscopy, due to adhesions forming sharp angulations which are often difficult to navigate, possibly affecting the technical success rate and patient outcomes. We therefore aimed to comparatively assess the technical performance of DBE in patients with and without a history of abdominal surgical interventions, in an expert referral centre.

Methods This was a retrospective, single centre analysis of consecutive DBEs performed for diagnostic and/or therapeutic indications between 2017-2022, by two expert operators with equivalent experience. Data were collected on patient demographics, procedure indication, previous surgical interventions, route and depth of insertion, procedure findings, technical success, and adverse events. Continuous data were expressed as median and interquartile range (IQR) and categorical data were expressed as counts and percentages. Chi-square, Fischer's, or Mann-Whitney U tests were used as appropriate. SPSS version 29.0.0.0 (241) was used to analyse the data.

Results 346 patients (median age 63, 46.1 % men) were included, of whom 63 had surgically altered anatomy, and underwent 83 DBE procedures. The most common type of surgical intervention was small bowel resection (39.7 %) A total of 458 DBE procedures were performed, 322 (70.3 %) via the anterograde and 136 (29.6 %) via the retrograde approach. Most commonly encountered clinical indication was SB bleeding/ iron-deficiency anaemia (47.6 %), followed by SB tumor/polyp (25,3 %).

The median depth of insertion was 200 cm (IQR, 100-300) and 120 cm (IQR, 60-200) for the anterograde and retrograde procedures respectively, vs. 220 cm (IQR, 180-340) and 200 (IQR, 160-280) for antero- and retrograde procedures respectively, in patients with and without previous surgical interventions. The technical success rate was 89.2 % vs. 98.4 % in patients with and without surgically altered anatomy, respectively, with a diagnostic and therapeutic yield of 68.7 % and 45.8 % vs. 69.1 % and 56.3 %, respectively. In patients with previous operations, the most encountered lesions were anastomotic ulcers (16.9 %), strictures (15.7 %) and polyps (12 %). Considering overall procedures, the most frequently encountered lesions were angioectasia (22.9 %). There were 2 adverse events (0.4 %) in each group (small bowel perforations), during an anterograde and retrograde procedure, respectively.

Conclusions Our data confirms that DBE has comparable rates of technical success in patients with and without surgically altered gastro-intestinal anatomy. Furthermore, a history of abdominal surgical interventions did not impact the occurrence of adverse events in our cohort.

Conflicts of interest All other authors have no conflicts to declare.Alberto Murino has acted as a consultant for Boston Scientific and GI supply He has also received academic grants from Fujifilm, Aquilant Endoscopy, Norgine and Olympus. Edward J. Despott has acted as a consultant for Boston Scientific and Ambu. He has also received academic grants and speaker honoraria from Fujifilm, Aquilant Endoscopy, Norgine and Olympus.

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MP078 Outcomes Of Lumen Apposing Metal Stent Placement In Patients With Surgically Altered Anatomy: A Multicenter International Experience

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Aims Lumen apposing metal stents (LAMS) have been increasingly used to manage patients with surgically altered anatomy (SAA), who would have otherwise required percutaneous or surgical interventions. Via the creation of de-novo anastomoses, LAMS provides a conduit to access distal parts of the gastrointestinal tract to perform various interventions.

We aim to assess technical, clinical, and safety outcomes of LAMS placement in patients with surgically altered anatomy for different indications.

Methods This was a retrospective study at 19 tertiary-care centers (Italy 9, USA 3, Belgium 2, Norway 1, Switzerland 1, Ecuador 1, Columbia 1, and India 1) through November 2023. Patients who underwent upper GI surgical procedures which resulted in altered anatomy as well as the placement of LAMS (AXIOS or SPAXUS stents) were included. The primary outcome was the technical success rate of stent placement. Secondary outcomes included rates of clinical success and safety including early or late bleeding, perforation, and stent migration.

Results 217 patients (106 males; median age 62 ± 16 years) underwent LAMS placement with SAA. 34 patients underwent EUS bile duct or gallbladder drainage (see table 1). 44 patients underwent cystic fluid collection drainage. The average cyst size was significantly smaller at day 7 (79 ± 28 mm before stent versus 14 ± 10 mm after stent; $p<0.001$). 74 patients underwent EUS gastroenterostomy, jejunojejunostomy, jejunoduodenostomy, or gastroduodenostomy. 40 patients underwent the EDGE (Endoscopic Ultrasound-Directed Transgastric ERCP) procedure while 3 patients had EDEE (Endoscopic Ultrasound-Directed Transenteric ERCP). Other patients underwent EUS-guided hepaticogastrostomy, hepaticoduodenostomy, pancreatogastrostomy, and others. Technical success was achieved in 97.2 % (211/217) of patients, and clinical success was 100 % (217/217). Overall adverse event rate was 13 %. Adverse events included bleeding (7), perforation/ misdeployment (8), stent migration (6), pulmonary embolism (1), jaundice (1), subhepatic fluid collection (1), fever (1), nausea & abdominal distention (1), gastrocolonic fistula (1), stent partial occlusion from GB stone (1).

Conclusions This study shows that placement of LAMS is associated with high technical and clinical success rates in patients with SAA. However, the rate of adverse events is noteworthy and thus these procedures should be placed by endoscopists with expertise.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP079 Traction-assisted versus conventional endoscopic submucosal dissection for superficial gastrointestinal neoplasms: a systematic review and meta-analysis of randomized controlled trials

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Aims A promising option called traction-assisted endoscopic submucosal dissection (T-ESD) has emerged to overcome the limitations of the conventional approach (C-ESD); thus, this systematic review and meta-analysis aimed to compare the procedure time, efficacy, and safety between T-ESD and C-ESD approach to superficial gastrointestinal (GI) neoplasms.

Methods MEDLINE, EMBASE, and Cochrane databases were searched for randomized controlled trials (RCTs) comparing C-ESD with T-ESD in adults with superficial GI neoplasms, reporting at least one of the outcomes of interest. The primary outcome was procedure time. Secondary outcomes were complete and en bloc resection rates, as well as bleeding and perforation rates. The risk ratio (RR) and mean difference (MD) were applied with their 95 % confidence intervals (95 % CIs) for dichotomous and continuous outcomes, respectively, using a random-effects model. Sensitivity analyses were performed if $I^2 \geq 50$ %. We performed subgroup analysis considering the lesion site (colorectum vs. esophagus vs. stomach). We deemed $p<0.05$ statistically significant. R statistical software was used for all statistical analyses.

Results We included 14 RCTs (2,166 patients). 69.7 % of the included patients were male. The mean age in each study ranged from 53.4-74.9 years. In terms of lesion site, 26.1 % patients had colorectal lesions, 16.3 % esophageal lesions, and 57.6 % stomach lesions. T-ESD was associated with a significantly shorter procedure time (MD -15.39 minutes; 95 % CI -21.93, -8.86; $p<0.01$; $I^2=76$ %). Regarding complete resection, T-ESD showed statistically better rates (RR 1.02; 95 % CI 1.00, 1.03; $p=0.04$; $I^2=0$ %); however, there was no significant difference in the risk of en bloc resection (RR 1.00; 95 % CI 0.99, 1.02; $p=0.52$; $I^2=50$ %). There was no significant difference in the risk of bleeding (RR 1.00; 95 % CI 0.63, 1.59; $p=1.00$; $I^2=0$ %); however, the risk of perforation was statistically lower with T-ESD (RR 0.31; 95 % CI 0.15, 0.67; $p<0.01$; $I^2=0$ %), compared to C-ESD. The leave-one-out sensitivity analyses showed that results were not dependent on individual studies. The subgroup analysis by lesion site showed that there were significant differences between the subgroups only in terms of procedure time – where the duration of T-ESD was shorter than C-ESD only for colorectal (MD -24.74 minutes; 95 % CI -36.22, -13.27; $p<0.01$; $I^2=72$ %) and esophageal (MD -17.77 minutes; 95 % CI -22.81, -12.73; $p<0.01$; $I^2=0$ %) lesions; while the duration of stomach lesions dissection was similar between both techniques. [1–14]

Conclusions Compared to C-ESD, the use of T-ESD in the approach to superficial GI neoplasms showed a shorter duration, greater efficacy in terms of complete resection, and higher safety regarding perforation. Additionally, it is important to highlight that only the dissection of stomach lesions did not demonstrate advantages in terms of procedure time with T-ESD.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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When, how and where to cut to get it moving

26/04/2024, 08:30 – 09:30 **Science Arena: Stage 2**

MP080V Endoscopic anterior fundoplication after POEM Myotomy in the same session. POEM-F

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DOI 10.1055/s-0044-1783090

Abstract Text Peroral endoscopic myotomy (POEM) is a well-established treatment for achalasia, however, gastroesophageal reflux after POEM remains a problem. Endoscopic fundoplication after POEM (POEM + F) has recently been described to reduce post-POEM GERD.The procedure consists of two steps: anterior POEM and fundoplication. Once the myotomy is finished, the peritoneum is dissected using a coagrasper, the pneumo is created using CO2 insufflation. An endoloop is placed and fixed with the help of four clips to the distal anchorage site, and to the final edges of the esophageal muscle myotomy. Finally, the loop is closed creating the anterior fundoplication, The entire procedure added 45 minutes to the standard POEM technique.
Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/e4645a98-6c97-46c7-8d12-bce9fc2fb764/Uploads/13821_F-POEM_esge%202024.mov
Conflicts of interest Authors do not have any conflict of interest to disclose.

MP081 Tunnel-free peroral endoscopic myotomy for Zenker's diverticulum (Z-POEM) shortens significantly the duration of the procedure

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Aims This study aims to report the technical feasibility and outcomes of modified peroral endoscopic myotomy for Zenker's diverticulum (Z-POEM), with the single tunnel and tunnel-free approach.
Methods This is a single center retrospective study comparing 3 variations for Z-POEM applied between 2019-2023 by a single operator with vast experience in endoscopic submucosal dissection and third space endoscopy. The tunnel-free technique was performed without tunneling, the single tunnel technique with a single diverticular tunnel, and the standard technique with 2 tunnels, as previously described [1–3].
Results Nineteen patients (8 women) with a mean age of 67.3 [SD 12.5] were included and underwent either standard Z-POEM (n = 5), single tunnel Z-POEM (n = 5) or tunnel-free Z-POEM (n = 9). All patients presented dysphagia and 14/19 respiratory symptoms (choking, inhalation or recurrent respiratory infections). The mean size of ZD was 3 cm [SD 1.1]. The median procedure duration per group was as follows: 45 min [range 30-50] for standard Z-POEM, 33 min [range 29-40] for single-tunnel Z-POEM, 30 min [18-43] for tunnel-free Z-POEM. Differences in duration were statistically different between the first and last group ($P < 0.05$). The overall technical success was 100 % in all groups with a mean length of hospital stay of 1.3 days [SD 1.3]. Adverse events occurred in one patient of the standard Z-POEM group due to accidental clipping of entrance of the esophagus, which was resolved after repositioning of the clips. The mean length of follow up was 15.5 months [SD 8.5]. Clinical success was achieved in all patients with decrease of the mean dysphagia score from 3.1 [SD 1,3] to 0.05 [SD 0.2] ($p < 0.05$). No patient presented recurrence. In addition, respiratory symptoms were relieved in all patients.
Conclusions All variations of Z-POEM were efficient for the relief of symptoms. However, the tunnel free technique shortened significantly the duration of the procedure by approximately 15 minutes and has been established as the procedure of choice in our hospital.
Conflicts of interest Authors do not have any conflict of interest to disclose.
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MP082 Preliminary Observations on Peroral Endoscopic Myotomy Using a Super Pulsed Thulium Fiber Laser

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Aims Per Oral Endoscopic Myotomy (POEM) is typically performed with diathermy and an ESD knife. Laser is an energy source used in urology for stone management, has also been reported for POEM [1]. This study aims to evaluate the feasibility and effectiveness of a novel 1920 nm super pulsed thulium fiber laser (POEM-L) in Peroral Endoscopic Myotomy (POEM), comparing it with historical data of POEM performed using diathermy (POEM-D) at our center [2].
Methods We retrospectively analyzed data from the first ten achalasia patients undergoing POEM-L at Haukeland University Hospital between February 2022 and March 2023. The study focused on acute and delayed complications, treatment efficiency using the Eckardt score (ES), and procedural details. This was compared to historical POEM-D data from 84 patients treated between January 2014 and 2019. POEM-L procedures were performed under general anesthesia

using a 365 or 550 micron 1920 nm super pulsed thulium fiber laser and a 4.5-7 Fr triple-lumen cannula for fiber stability, with energy settings of 10-30W.

Results Ten patients, 4 males and 6 females, with symptomatic achalasia and Eckardt score ≥ 6 were included. The mean age was 38.5. Based on HRM, two patients had achalasia type I, 6 type II, and two with type III. Four patients (40 %) were treatment naïve, 3 (30 %) had undergone pneumatic balloon dilatation, 1 (10 %) had previous Heller´s myotomy combined with Dor fundoplication, and 3 (30 %) had undergone previous POEM. The patients who had redo-POEM had POEM-D as the first treatment. The median resting pressure over lower esophageal sphincter (LES) was 24.4 mmHg (Range (14.1-45.0 mmHg) before POEM. All ten patients (100 %) patients had posterior myotomy. The median myotomy length was 7 cm (range 5-14 cm). The procedure time was mean 107 min for POEM-L, compared to 130 min for POEM-D, p = 0.01. Dysphagia improved in all patients on follow-up, but clinical success (ES ≤ 3) in nine patients. The ES was significantly reduced from median 7 (range 5-10) before POEM to 0.5 (range 0-8) at 6-12 months (p < 0.001). None of the patients reported post-operative symptoms of daily reflux, while one patient had used PPI regularly before POEM. Patients who underwent POEM-L were hospitalized for mean 1.0 days compared to a mean of 3.2 days after POEM-D (p < 0.001). In nine cases, we used the same instrument to complete all steps of the POEM procedure, including mucosal injection and incision, submucosal tunneling, vessel dissection, and myotomy.

Conclusions POEM utilizing a thulium fiber laser appears feasible and potentially non-inferior to POEM-D. Notable advantages include shorter procedure times and hospital stays. While promising, POEM-L requires a learning curve and dedicated instruments. Further studies are necessary to validate these preliminary findings.

Conflicts of interest Pham KDC is a consultant, speaker and trainer for Olympus

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MP083 The Impact of EndoFLIP-guided POEM on Endoscopic Myotomy Length and Patient Outcomes

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Aims The aims of this study were to determine whether intraprocedural endoluminal functional lumen imaging probe (EndoFLIP) can guide the endoscopist in adjusting the length of the myotomy according to the distensibility index (DI) and minimum diameter (Dmin) values and to examine this impact on clinical outcomes of peroral endoscopic myotomy (POEM).

Methods We performed a retrospective review (prospectively collected data) of 12 consecutive patients undergoing EndoFLIP-guided POEM. EndoFLIP measurements including DI and Dmin were recorded pre-procedure, intra-procedure, and 6 months post-POEM. The endoscopic myotomy length was lengthened when the DI was < 3.5 mm2/mmHg and Dmin was < 12 mm until desired values were achieved. Eckardt Score (ES) was determined pre-POEM and at first follow-up. EndoFLIP parameters and ES were compared pre- and post-myotomy using Wilcoxon signed rank and paired t-tests.

Results Median pre-procedure DI and Dmin were 1.42 (0.65 – 1.9) and 7.15 (range 5.4 – 9.5), respectively. Median esophageal myotomy length was 8cm (8-9). Median pre-POEM and post-POEM ES were 9 (6-12) and 1.5 (0-6), respectively. At 6 months, the median DI and Dmin were 4.9 (3.2-8) and 16 (12-21.5), respectively. Post-POEM ES < 3 was achieved in 91.6 % of patients. The paired t-tests demonstrated significant differences in both DI and Dmin when comparing before and after endoscopic myotomy (p < 0.001) indicating EndoFLIP was effective in improving these outcome measures. When comparing total myotomy length to EndoFLIP measurements (Dmin and DI) and the ES, 6 months post POEM, there was a statistically significant difference observed (p < 0.001), indicating that the EndoFLIP-guided myotomy had a significant effect on outcomes. Post POEM reflux was observed in 2 patients, with no observed correlation to gastric myotomy length.

Conclusions Intra-procedural EndoFLIP during POEM appears feasible and safe. EndoFLIP-guided POEM demonstrated promising results for myotomy adequacy. EndoFLIP provided real-time monitoring of lower esophageal sphincter (LES) distensibility and diameter during POEM to personalize myotomy length. At 6 months, significant improvements were seen in ES and EndoFLIP measurements, showing the LES had been successfully treated. When comparing final myotomy length to outcomes, a significant association was seen, supporting the utility of EndoFLIP-guided POEM. Moreover, intraprocedural EndoFLIP during POEM enabled standardization and optimization of endoscopic myotomy length. These findings warrant larger validation studies.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP084 Is Hospital Admission Essential? Evaluation of Immediate Postoperative Care and Adverse Events Following Endoscopic Peroral Myotomy (POEM) for achalasia

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DOI 10.1055/s-0044-1783094

Aims Our aim is to calculate the rate of patients from our cohort who could be discharged early after POEM (without hospital admission) and determine the rate of readmission by identifying the occurrence of early and delayed adverse events (AE) that require in-hospital management.

Methods Patients with achalasia treated with POEM between June-2019 and July-2023 were identified. Demographic, clinical and endoscopic data were collected including clinical outcomes and AE during admission and at 30 days. Any event during the POEM procedure that does not require suspension of the procedure or a major medical intervention was considered an incident, and not an AE. The AEs were classified according to the AGREE Classification. Patients experiencing AE grade II or higher were considered to require hospital admission for management, while those without any AE or with AE grade I might not require it.

Results 76 patients (44.7 % women; median age 59) underwent POEM for achalasia (Type 3 achalasia: n = 15, 19.7 %). 45 % had a previous treatment (21 with previous Heller myotomy); 82.8 % were ASA I or II. All mucosal incisions were closed with endoscopic clips.

Incidents included the need for hemostatic forceps for vessel coagulation or bleeding (15.8 %), pneumoperitoneum (5.3 %, related to accidental air insufflation), and bronchoaspiration during orotracheal intubation (6.5 %).

Fifty (65.8 %) patients had grade I AE (pain or nausea controlled during the first 8 hours with medication except in 2 patients) and 10 (13.2 %) AEs ≥ grade II (Atrial Flutter during POEM n = 1; Aspiration pneumonia n = 4; small mucosal defect at cardia n = 1; unknown fever after 24 hours n = 1; big esophageal mucosal defect n = 1; delayed bleeding n = 1; intensive care for severe COPD n = 1). The univariate analysis showed a correlation between the presence of AE grade II or higher and bronchoaspiration during intubation (p = 0.001) and the presence of intratunnel fibrosis (p = 0.015). In the multivariate analysis, bronchoaspiration (p = 0.007) was the only risk factor associated with AE grade II or higher after POEM.

Two patients would have required re-admission (1 for delayed bleeding and 1 for unknown fever after 24 hours) out of 67 who did not experience immediate AE II or higher (a re-admission rate of 2.9 %).

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Conclusions Adverse events of grade II or higher (according to the AGREE classification) after POEM are infrequent (13 %), indicating that safe discharge could be considered in approximately 87 % of cases, accompanied by a low re-admission rate. [1–3]

Bronchoaspiration during intubation is associated with the occurrence of adverse events of grade II or higher. Grade I adverse events, such as pain and nausea, are common, particularly in the initial hours post-POEM. However, these can often be effectively managed with oral medication and may not necessitate in-hospital management.

Conflicts of interest H. Uchima is consultant for Lumendi, collaborates with ERBE Spain, Olympus Iberia,and Izasa, and has received congress inscription from Casen-Recordati

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MP085 Automatic Three-Dimensional Reconstruction of the Esophagus in Achalasia Patients undergoing POEM: a Comprehensive Assessment of Treatment Outcomes and pathophysiological Changes

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Aims Achalasia is a chronic esophageal motility disorder. Peroral endoscopic myotomy (POEM) is a standard treatment option for patients with achalasia. However, treatment response varies due to factors such as achalasia type, degree of dilatation, pressure, and distensibility indices. This study presents an innovative approach for risk stratification, treatment response prediction and pathophysiological understanding based on an automatic three-dimensional (3-D) reconstruction of the tubular esophagus (TE) and the lower esophageal sphincter (LES) in patients undergoing POEM for achalasia.

Methods A software was developed, integrating data from high-resolution manometry (HRM), timed barium esophagogram (TBE), and endoscopic images, to automatically generate 3-D reconstructions of the TE and LES. Novel normative value indices for TE and LES were automatically integrated and calculated as "TE" = Volume × Pressure and "LES" = Volume/Pressure, facilitating pre- and post-POEM comparisons. Prospective data from achalasia patients undergoing POEM were used to derive volumetric and pressure indices from the 3-D reconstruction. Treatment response was evaluated by changes in volumetric and pressure indices for the TE and the LES before POEM as well as 3 and 12 months after POEM. In addition, these values were compared with normal value indices of non-achalasia patients. Geometric alterations and remodelling post-POEM were visually assessed using the 3-D reconstruction of the esophagus.

Results The study prospectively enrolled 50 treatment-naive achalasia patients. Mean TE(0) index was 3438.43 ± 3805.64cm³ * mmHg and decreased significantly 3 months after POEM to mean TE(3) index of 952.27 ± 1077.7cm³ * mmHg (P < .0001). Mean LES(0) index was 0.1950 ± 0.3605cm³/mmHg and increased significantly 3 months post-POEM to mean LES(3) index of 0.9955 ± 0.9966cm³/mmHg (P < .0001). In the 12-months follow-up with 16 patients, mean TE(3) and mean TE(12) indices (P = .535), as well as mean LES(3) and mean LES(12) indices (P = .438) did not exhibit significant differences. 3 months post-POEM mean LES(3) index approached mean LES(N) of the healthy control group (P = .077).

Conclusions 3-D reconstruction provides an interactive, dynamic visualization of the esophagus, offering valuable insights into post-treatment remodelling and pathophysiological changes. These insights can inform our approach to achalasia treatment and optimize treatment outcomes.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP086 Evaluation of Esophageal Motility in Patients with Achalasia Treated by PerOral Endoscopic Myotomy (POEM)

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Aims Achalasia is characterized by impaired relaxation of the lower esophageal sphincter (LES) and absent esophageal peristalsis. Following treatment, some recovery of esophageal motility has been observed (5-48 %) without identifying factors related to this recovery.

Our aim is to evaluate the recovery of esophageal motility after Peroral Endoscopic Myotomy (POEM), its potential clinical relevance, and the factors associated with this recovery.

Methods Patients with achalasia who underwent POEM from January 2019 to May 2023 with both baseline and post-POEM high-resolution esophageal manometry (HRM), were included. Those with treatment failure were excluded. Recovery of motility was defined as the presence of normal, hypotensive, or hypertensive waves. Clinical response after POEM was assessed through the Eckardt score and esophageal clearance (esophagogram and/or impedance) < 5cm at 5 minutes. We compared the characteristics and outcomes between the group with esophageal motility recovery and the group without esophageal motility recovery.

Results Forty-three patients were analyzed (Type I = 9; Type II = 25; Type III = 9; females 55.5 %; previous Heller 23.3 %). Sigmoid esophagus was present in 51.8 % of cases. Fifteen (34.9 %) showed motility recovery: 3 (33 %) Type I, 11 (44 %) Type II, and one (11.1 %) Type III. The difference between groups was not statistically significant (I vs II p = 0.577; I vs III p = 0.257; II vs III p = 0.077).

In univariate analysis, except for a higher post-POEM basal pressure of the LES (p = 0.042), none of the other factors (age, duration of achalasia symptoms, previous treatments, esophagogram characteristics, pre-POEM Eckardt, pre-POEM IRP, length of esophageal myotomy, and time to follow-up HRM) were related to motility recovery. Having a non-sigmoid esophagus showed borderline statistical significance (p = 0.087), and a higher post-POEM IRP in the supine position approached statistical significance (p = 0.054). In the multivariate analysis, none of the factors showed statistical significance. Analyzing only the subgroup of Type II achalasia, no factors associated with motility recovery were identified. There were no differences observed in Eckardt score (p = 0.226) or esophageal clearance (esophagogram (p = 0.397), impedance (p = 0.941)) between the two groups. Erosive esophagitis was observed in 26.7 % of the motility recovery group compared to 31.1 % in the group without motility recovery, without reaching statistical significance (p = 0.7)

Conclusions In our cohort, approximately 35 % of the patients experience the recovery of esophageal motility following POEM. This recovery is observed more frequently in Type II achalasia and, conversely, less commonly in Type III achalasia. It appears that predicting this recovery based on manometric findings or clinical evolution is challenging, and furthermore, it does not impact clinical response or esophageal clearance. Further studies are needed to clarify whether esophageal motility recovery could improve or prevent post-POEM gastroesophageal reflux. [1–2]

Conflicts of interest H. Uchima is consultant for Lumendi, collaborates with ERBE Spain, Olympus Iberia,and Izasa, and has received congress inscription from Casen-Recordati

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MP087 Selective inner muscle layer myotomy is associated with lower pain and same clinical efficacy that full-thickness myotomy in patients treated by POEM for achalasia: a multicenter retrospective comparative analysis of 158 patients

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DOI 10.1055/s-0044-1783097

Aims The aim of this study was to compare the impact of the depth of myotomy (selective inner layer myotomy (SIM) vs. full-thickness myotomy (FTM)) on the outcome of patients treated with POEM for achalasia.

Methods This was a retrospective, observational, conducted in two tertiary centers between October 2018 and September 2022. Patients were divided into two groups: SIM and FTM. The primary endpoint was clinical efficacy at 6 months, while secondary endpoints were postoperative criteria (such as pain, length of hospital stay, complications) and occurrence of gastroesophageal reflux disease (GERD) (esophagitis at 6 months, heartburn, and pH-metry).

Results 158 patients were included in the study (33 in the FTM group and 125 in the SIM group). The success rates at 6 and 12 months were similar in both groups, with 84 % and 70 % in the SIM group versus 90 % and 80 % in the FTM group, respectively ($p = 0.57$ and $p = 0.74$). However, more opioid analgesics were consumed in the FTM group compared to the SIM group (41 % vs 21 %, $p < 0.01$). The length of hospitalization was longer in the FTM group than in the SIM group (2.17 ± 2.62 vs 2.94 ± 2.33, $p < 0.001$). The rate of esophagitis at 6 months was comparable (16 % in the SIM group vs 12 % in the FTM group, $p = 0.73$). There was no significant difference in terms of heartburn at 6 or 12 months between the SIM and FTM groups (18.5 % vs 3.8 %, $p = 0.07$ and 27 % vs 12.5 %, $p = 0.35$, respectively).

Conclusions There was no significant difference in terms of clinical efficacy and GERD occurrence between FTM and SIM. However, full-thickness myotomy was associated with more postoperative pain

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP088 Safety and efficacy of Muscular-Tunneling Peroral Endoscopic Septotomy (MT-POES) for the treatment of Zenker's diverticulum

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DOI 10.1055/s-0044-1783098

Aims This observational study aims to evaluate the technical success, clinical efficacy, and safety of a Peroral Endoscopic Septotomy (POES) variant, named Muscular Tunnelling Peroral Endoscopic Septotomy (MT-POES), for the treatment of Zenker's diverticulum (ZD).

Methods This study included 32 patients with symptomatic ZD, naïve to previous treatments, treated with MT-POES in our Centre between March 2021 and September 2023. Mean diverticular size was 30 mm (IQR = 20 – 36.3). Endpoints of the study included technical success, clinical efficacy (objectified by a reduction in mean Dakkak-Bennet dysphagia score) and safety of the procedure.
The first stage of MT-POES is performing a longitudinal mucosotomy on the top of the septum in order to expose the cricopharyngeal muscle. Then, unlike in the standard POES where the muscle is isolated by creating two lateral submucosal tunnels, a direct muscular dissection is carried out, creating an intra-septal muscular tunnel, which extends approximately 5-10 mm in the oesophageal wall, in order to ensure a complete septal myotomy. Finally, the mucosotomy is sealed using through-the-scope clips.

Results MT-POES demonstrated a 100 % technical success rate, with a median procedural time of 40 minutes (range 15-90 min), recording a shortening of time from the first to the second half of the casuistry. Median pre-treatment Dakkak-Bennet score was 2 (IQR = 1 – 2). After the treatment 94 % (30/32) of patients achieved complete resolution of the symptom. One patient was not fully satisfied and requires an additional treatment with Flexible Endoscopic Septum Division (FESD), with no residual dysphagia. One patient experienced a relapse of dysphagia after three symptoms-free months and was successfully treated with FESD. Mean follow up time was 11.5 months (IQR 5 – 14). No major adverse events were reported. Four patients (12.9 %) developed subclinical self-limiting pneumomediastinum. Median hospital stay was two days. [1]

Conclusions MT-POES is a safe and effective therapeutic option for symptomatic ZD, exhibiting promising outcomes in terms of technical success, dysphagia relief and safety, comparable to those reported in other studies of Peroral Endoscopic Myotomy (Z-POEM) and POES. Further studies and longer follow-up are needed to confirm the validity of this technique.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP089 Treatment procedures for intractable gastroesophageal reflux disease after peroral myotomy for achalasia: anti-reflux ablation, mucosectomy, Stretta radiofrequency

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Aims Treating intractable gastroesophageal reflux disease (GERD) after peroral endoscopic myotomy (POEM) is challenging owing to paradoxical treatment scenarios. No study has compared the safety and efficacy of anti-reflux ablation therapy (ARAT), anti-reflux mucosectomy (ARMS), and Stretta radiofrequency (SRF) for intractable GERD after POEM. We compared these therapeutic methods for iatrogenic intractable GERD after POEM.

Methods Between March 2011 and April 2023, the data of 22 patients with intractable GERD after POEM were retrospectively analyzed. Twelve, six, and four of the patients received ARAT, ARMS, and SRF, respectively. GERD questionnaire score, endoscopic Los Angeles classification, flap valve grade based on Hill's type EndoFLIP distensibility index (DI), and rate of proton pump inhibitor withdrawal were analyzed and compared. Factors associated with the occurrence of post-POEM intractable GERD were also evaluated. [1–11]

Results The ARMS group showed significant improvement in GERD questionnaire scores after 6 months of follow-up, compared to the ARAT and SRF groups ($P = 0.041$). No significant differences were observed in the endoscopic Los Angeles grade ($P = 0.675$), flap valve grade ($P = 0.375$), and EndoFLIP DI ($P = 0.149$). Post-POEM GERD was related to achalasia type ($P < 0.001$), whereas post-procedural adverse events (bleeding and stricture) occurred in the ARAT and ARMS groups.

Conclusions Between ARAT, SRF, and ARMS, ARMS seems to have provided the best improvement in subjective symptoms. This was not the trend regarding endoscopic esophagitis and EndoFLIP DI improvement.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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How to save environment and yourself

26/04/2024, 08:30 – 09:30 **Science Arena: Stage 1**

MP090 Comparison of single use versus reusable gastroscope environmental impacts for an upper GI endoscopy procedure

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Aims The environmental impact of endoscopy, including upper Gi endoscopy (UGE), has gained attention due to its contribution to the global carbon footprint. This study aimed to perform a life cycle assessment of the process of making an endoscope available for upper GI endoscopy, comparing disposable and reusable endoscopes.

Methods Single use (Ambu Ascope Gastro) and reusable gastroscope (Olympus, H190) were evaluated using life cycle assessment methodology (ISO 14040), including analysis of scopes (components, assembly, distribution, use, end of life), disinfection and storage processes. An evaluation of the endoscopy column and washer impact based on monetary ratio was conducted to simulate scenarios of impacts in different settings.

Results In single use and reusable strategies, climate change accounted respectively for 10.9 kgCO_2 eq and 4.7 kgCO_2 eq, fossil eq depletion for 130 MJ and 61MJ, water depletion for 6.4 and 9.5 m^3 per endoscope use. In the single use strategy. Based on monetary ratio, the endoscopy column accounted respectively for 4725 and 10080 kg CO_2eq in the single use and reusable strategies, while the washer (reusable strategy) accounted for 7875 kg CO_2 eq. In a unit performing 1000 endoscopies/year, the column (and washer) account respectively for 0.47 kg CO_2 eq in single use strategy versus 1 (and 0.79) kg CO_2 eq reusable strategy.

Conclusions For one upper GI endoscopy, single use endoscope is 2.5 more impacting than a reusable scope. Nevertheless, this difference is equivalent to a 17.5 km drive to reach the endoscopy unit compared to a local endoscopy with single use strategy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP091 Clarifying approach to carbon footprint analysis in GI endoscopy – Comparison of an open access approach to professional analysis software

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DOI 10.1055/s-0044-1783101

Aims Carbon footprint analysis using life cycle assessment (LCA) has become more frequent in GI endoscopy. Various methods are available. To compare carbon emissions obtained through open access databases with an approach using professional software.

Methods We analyzed the carbon emissions of three commonly used endoscopic instruments (snares, forceps and clips) from different manufacturers using a widely used professional LCA software (SimaPro) following ISO 14040 standards and compared it to recently published results that were obtained using open access databases. The LCA software allows for a detailed assessment of stages during the lifecycle of an instrument from manufacturing to disposal, in particular related to process of manufacturing. While type and weight of material, mode and distance of transportation and type of disposal were identical, additional details related to manufacturing were added to the analysis. Our main outcome of interest was the relative difference in carbon emissions estimates between the two LCA approaches.

Results The professional LCA approach resulted in similar carbon emissions for three different types of snares as the open access approach (mean of 0.396 vs 0.410 kgCO2e, RD 0.97). Carbon emissions for three different types of biopsy forceps and two different types of hemoclips were greater when using the professional LCA approach with an average of 0.498 vs 0.413 kgCO2e (RD 1.21) for snares and an average of 0.570 vs 0.490 kgCO2e for hemoclips (RD 1.16). Relative differences between the two LCA approaches for the same instruments ranged from 1.01 (Snare) to 1.44 (Forceps).

Conclusions This first comparison of two different approaches to assessing carbon footprint of commonly used endoscopic instruments showed overall only small differences. The results suggest that open access analysis may be appropriate for calculating carbon emission related to GI endoscopy practice.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP092 An investigation into the materials and life-cycle assessment of supplies commonly used in colonoscopy

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DOI 10.1055/s-0044-1783102

Aims GI endoscopy is highly resource-intensive with a significant environmental impact and extensive utilization of non-reusable plastic instruments. Colonoscopy is the most commonly performed gastrointestinal procedure. The type of material has a direct effect on the environmental impact and on carbon emission. We aimed to scrutinize the materials commonly employed in colonoscopy procedures, assessing their life cycle (LCA) by determining their carbon footprint.

Methods We examined supplies commonly used for colonoscopy procedures, not taking in account diagnostic or therapeutic supplies (e.g. forceps or snares), and reprocessing, were categorized according to procedure stage: i) Pre-procedure (iv needle, iv dressing, EKG leads, BP cuff, nasal cannula and underpad) and ii) Procedure room (gloves, syringe, three-way trap, infusion extension tube, suction container, aspiration tube and tubing). These materials were categorized based on their primary components, which were subjected to Fourier Transform Infrared Spectroscopy (FTIR) and Thermogravimetric Analysis (TGA), ultimately disclosing their composition. Carbon footprint ($kgCO_2e$) from production, transportation and end-of-life will be calculated with an OpenLCA software (in progress).

Results The total waste of examined colonoscopy supplies was 249.5 g (pre-procedure/procedure room): landfill waste 27 g (10.82 %), regulated medical waste 185.5 g (74.35 %), recycled paper 10 g (4.01 %) and recycled plastic 27 g (10.82 %) kg. Primary components of different supplies were identified as polymeric, being polyethylene (PE, 88 g), acrylonitrile butadiene (AB, 37 g) and polytetrafluoroethylene (PTFE, 34 g) those with high weight content. Metallic materials were almost negligible being brass the only one detected.

Conclusions Understanding the nature of the materials used in colonoscopy and their environmental impact should be a contemporary priority to select the most sustainable alternative among various commercial brands.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP093 Risk factors for post-ERCP infection and indications for single-use duodenoscopes in a large cohort of patients in academic and non-academic centers

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DOI 10.1055/s-0044-1783103

Aims The aim of our study was to determine the risk factors for post-ERCP infection and indications for Single-Use Duodenoscopes, in a large cohort of patients undergoing ERCP with reusable duodenoscope in an academic and a non-academic center.

Methods We conducted a longitudinal, retrospective study including all ERCPs with reusable duodenoscopes performed between July 1, 2021 and June 30, 2022, based on a prospective registry. Age, gender, indications for ERCP, potential risk factors for post-ERCP infections and indications for SUD use, previous procedure, presence of active pre-ERCP infection and/or MDRO carriage, use of antibiotic therapy prior to ERCP, and technical procedures performed during ERCP were recorded at inclusion. The primary outcome was the incidence of infection occurring within 30 days of ERCP. Post-ERCP infection was defined as any evidence of a new infection after the ERCP procedure, in the absence of a more likely infectious etiology other than ERCP, and in the absence of a pre-ERCP infection. Post-ERCP cholangitis and cholecystitis were defined in accordance with the Tokyo 2018 guidelines. Type of infection (either cholangitis, cholecystitis, liver abcess, peritonitis, pneumonia, urinary tract infection, septicemia, pseudocyst or WON infection, and other), AGREE classification for the AE that occurred, length of stay pre- and post-ERCP, intensive care unit (ICU) admission, germ type, duration of antibiotic therapy and type of antibiotic therapy were also recorded.

Results In the 654 ERCPs with reusable duodenoscopes (including 539 and 115 procedures performed in an academic and non academic center, respectively), the mean age was 61 y (60 ± 18). Infection was the more prevalent AE accounting for 54 patients (8.2 %). Of these patients, 42 (77,8 %) had one or more risk factors. In univariate analysis, ERCP outcome (complete or incomplete drainage) ($p < 0{,}0005$), the presence of hilar/Klatskin tumor ($p = 0.001$ and $p = 0.004$, respectively), cholangioscope use ($p = 0{,}010$), presence of liver metastasis ($p = 0{,}014$), post-surgical stenosis ($p = 0{,}035$), plastic biliary stenting ($p = 0{,}046$), and ongoing chemotherapy and hematologic disease ($p = 0{,}047$) were associated with post-ERCP infection. In multivariate analysis, the presence of a Klatskin tumor ($p < 0.0005$), hematological disease ($p = 0{,}021$), ongoing chemotherapy ($p = 0{,}001$), benign biliary stricture ($p = 0{,}027$), were significantly associated with post-ERCP infection, for a total of 236 patients. Moreover, including HIV + (1pt), Covid + (4pts) and MDROinfected or -carriers patients (14pts), 247 pts were potential indications for SUD use.

Conclusions Multivariate analysis showed that the presence of a Klatskin tumor, hematological disease, ongoing chemotherapy, and benign biliary strictures were significantly associated with post-ERCP infection. Taking into account HIV-, Covid- and MDRO infected or carriers- patients, the total theoretical indications for SUD includes 37,8 % of all ERCPs. Further research is needed to determine the cost-benefit of SUD use and whether or not these infections may be scope related.

Conflicts of interest Research Grant Boston Scientific

MP094 A Search Strategy for Detecting Duodenoscope-Associated Infections: A Retrospective Observational Study

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DOI 10.1055/s-0044-1783104

Aims Duodenoscope-associated infections (DAI) are exogenous infections resulting from the use of contaminated duodenoscopes [1]. While numerous outbreaks of DAI involved multidrug-resistant microorganisms (MDRO), outbreaks involving non-MDRO are also likely to occur [2]. Detection is hindered because infections are resolved before being cultured or causative strains are not stored for later comparison with strains from contaminated duodenoscopes. This retrospective observational study aims to identify and analyze DAIs that occurred over a seven-year period.

Methods Duodenoscope cultures positive for gastrointestinal flora between March 2015 and September 2022, were paired with duodenoscope usage data to identify patients exposed to contaminated duodenoscopes. Our analysis encompassed patients treated after a positive duodenoscope culture and those treated within the interval from a negative to a positive culture. Patient identification numbers were cross-referenced with a clinical culture database to identify patients developing infections with matching microorganisms within

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one year after their procedure. A "pair" was established upon a species-level match between duodenoscope and patient cultures. Pairs were further analyzed via antibiogram comparison, and whole-genome sequencing (WGS) to determine genetic relatedness.

Results Out of 68 identified pairs, 31 were incomparable due to microorganism unavailability, and 16 exhibited mismatched antibiograms. Twenty-one pairs underwent WGS, revealing three genetically closely related pairs, classified as DAIs. Infection onset occurred up to two months post-procedure. Causative agents included *Enterobacter ludwigii*, *Enterococcus faecium*, and *Klebsiella pneumoniae*, all were non-MDRO.

Conclusions This study highlights challenges in routine clinical DAI detection. Clinically relevant DAIs with non-MDRO not only exist, but may manifest after a prolonged time following exposure, contributing to the underestimation of DAI risk.

Conflicts of interest MCV has received research support from Boston Scientific, 3M and Pentax Medical. MJB has received research support from Boston Scientific, Cook Medical, Pentax Medical, Mylan, ChiRoStim and acted as a consultant/lecturer for Boston Scientific, Cook Medical, Pentax Medical and AMBU.

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MP095 Establishing Preconditions for Effective Duodenoscope Reprocessing: An Observational Cohort Study

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DOI 10.1055/s-0044-1783105

Aims The use of contaminated duodenoscopes in endoscopic retrograde cholangiopancreatography (ERCP) has caused numerous healthcare-associated infection outbreaks [1]. Despite adherence to reprocessing protocols, duodenoscopes often remain contaminated [2]. Moreover, there's a lack of evidence outlining the prerequisites for adequate duodenoscope cleaning, disinfection, and storage to prevent contamination. This study aims to investigate the effect of manual cleaning and drying factors on duodenoscope contamination.

Methods Duodenoscope cultures from Pentax ED34-i210T2 models were collected between February 2022 and June 2023. Contamination was determined by the presence of microorganisms of gut or oral origin (MGO). Data on duodenoscope usage, reprocessing start time, cleaning duration, personnel involved, and drying time were retrieved from electronic medical records. Risk factors, including delays in manual cleaning initiation and insufficient drying time, were determined based on reprocessing guidelines and literature. A generalized linear mixed-effects model was used to investigate the effect of these risk factors on duodenoscope contamination.

Results A total of 242 duodenoscope cultures were collected from eight different duodenoscopes. Contamination with MGO was identified in 48 (19.8 %) cultures. Over the study duration, the duodenoscopes underwent reprocessing 909 times. Manual cleaning durations of 7 minutes or less were associated with higher odds of contamination (aOR = 1.63, 95 % CI: 1.06-2.49, $p = 0.02$). Interestingly, duodenoscope usage appeared to provide protection against contamination (aOR = 0.78, 95 % CI: 0.59-1.03, $p = 0.08$). However, factors such as a 30-minute delay in initiating manual cleaning, drying times below 90 minutes or exceeding 7 days, and reprocessing personnel experience didn't demonstrate a clear association with contamination rates.

Conclusions There are substantial knowledge gaps regarding the risk factors for duodenoscope contamination. Meticulous monitoring of the reprocessing timeline and steps may prove beneficial. Manual cleaning durations of 7 minutes or shorter are linked to increased odds of contamination with MGO. Future research is needed to determine whether heightened surveillance of manual cleaning duration could lead to reduced contamination.

Conflicts of interest MCV has received research support from Boston Scientific, 3M and Pentax Medical. MJB has received research support from Boston Scientific, Cook Medical, Pentax Medical, Mylan, ChiRoStim and acted as a consultant/lecturer for Boston Scientific, Cook Medical, Pentax Medical and AMBU.

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MP096 Impact of reduction of energy consumption in endoscopy units – a multicenter study

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DOI 10.1055/s-0044-1783106

Aims Endoscopy is among the top three sources of CO2 emissions in hospitals. While it is difficult for users to influence the CO2 emissions of consumer goods, power consumption is a significant in-house factor, which can be directly addressed. The goal of the study was to measure power consumption during endoscopic procedures and to present easily implementable approaches for energy conservation.

Methods In a multicenter prospective study, power consumption in three endoscopic centers was measured for 30 days and compared to power consumption during another 30 days with special energy-saving measures. Additionally, endoscopy staff were interviewed regarding the extra effort required to achieve energy savings.

Results Under standard conditions, the mean (± SD) power consumption per examination for the three centers was 159.56 (± 23.19), 367.01 (± 40.65), and 353.84 (± 93.66) Wh, respectively, and it decreased through the energy-saving measures to 132.36 (± 20.51) ($p < 0.0001$), 332.44 (± 62.20) ($p = 0.0135$), and 327.46 (± 74.51) ($p = 0.2323$) Wh. This would result in an annual reduction of CO2 emissions by 58.11, 73.79, and 71.17 kg, respectively. The energy-saving measures were well-received by the endoscopy staff.

Conclusions Reducing power consumption is a low-threshold yet effective method for urgent reducing the carbon footprint in endoscopy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP097 Grip strength measurement in high-volume endoscopists and non-endoscopic working gastroenterologists – an opportunity to prevent musculoskeletal health injury in endoscopists?

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Aims Up to 80 % of practicing GI endoscopist are affected by musculoskeletal health disorder with significant influence on personal health, absence from

work and reduction of endoscopic workload. It is estimated that overuse injury is a main mechanism of health impairment, but methods to prevent musculoskeletal disorder in GI endoscopists are elusive. Since hand grip strength measurement has been identified as an important indicator of musculoskeletal health and physical fitness, the further evaluation of hand grip strength in working endoscopists in comparison to non-endoscopists might bring further evidence to prevent musculoskeletal health disorder in GI endoscopists.

Methods In this prospective single-center study, measurement of hand grip strength was conducted on 20 workdays by a high-volume GI endoscopist and a gastroenterologist who did not perform endoscopic procedures before and after work at University Hospital Ulm. For hand grip strength measurement, JAMAR© Plus Hand Dynamometer was used according to the Southampton protocol. Three serial measurements were performed with each hand to obtain an average grip strength at each measurement point. Statistical analysis was performed using SPSS Statistics 29 (IBM, USA). Mann-Whitney U test, students t-test, univariate analysis of variation (ANOVA) and Kruskal-Wallis test were performed whenever applicable.

Results Average hand grip strength of the high-volume endoscopist was not significant higher than the hand grip strength of the non-endoscopic working gastroenterologist (left hand: 102.2 lbs vs. 93.3 lbs, $p = 0.26$; right hand: 114.0 lbs vs. 108.2 lbs, $p = 0.44$). In comparison, hand grip strength was significant higher after work in non-endoscopist subject for both hands (left: 89.2 lbs vs. 95.4 lbs, $p = 0.025$; right: 95.9 lbs vs. 101.4 lbs, $p = 0.035$) while the participating endoscopist had a significant lower grip strength after work (left: 107.4 lbs vs. 95.2 lbs, $p < 0.001$; right: 106.8 lbs vs. 95.6 lbs, $p < 0.001$). In both subjects, the day of the week (beginning vs. end of the week) had no effect on hand grip strength.

Conclusions As hand grip strength is associated with health performance status, significant difference can be observed between endoscopists and non-endoscopists in the impairment of hand grip strength within a workday. To prevent musculoskeletal health issues in endoscopists, timing and effect of health interventions could be implemented by evidence from hand grip strength measurement. Therefore, further observation studies are mandatory to develop methods to prevent musculoskeletal health disorder especially for high-volume endoscopists.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP098 Ergonomic analysis of functional colonoscopy simulations using inertial sensors

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DOI 10.1055/s-0044-1783108

Aims Suboptimal ergonomics during colonoscopy procedures can lead to significant physical discomfort and fatigue for the endoscopist. The purpose of this study is to objectively analyze the ergonomic positions of endoscopists when performing colonoscopy procedures using a simulator and to assess the risk of potential injuries.

Methods Eight endoscopists (4 experts and 4 novices) performed two colonoscopies on a model (Colonoscope Training Simulator M40 by Kyoto Kagaku INC), one being a simple procedure and the other complex, while wearing an inertial magnetic motion tracking suit (Xsens). Each participant used a total of 17 trackers. The simulations took place in a room with conditions similar to the real-world settings. The collected data were transmitted to a network application (Xsens MotionCloud) for automatic analysis of REBA and RULA. Finally, the professionals responded to a questionnaire to assess the extent to which operational postures subjectively affect their comfort (NASA Task Load Index).

Results For the RULA, "low risk" is the more common result, with some "medium risk" periods representing in all cases less than 12 % oh the whole duration. For the REBA the results are very similar, with "negligible" and "low risk" occurring more than 90 % of the time, and "medium risk" periods representing in all cases less than 8 %. High-risk values were very sporadic and occurred only in novice participants. Regardig the complexity of the intervention, results show a slightly higher risk in the complex procedure than in the simple procedure. Novice subjects and complex interventions took more time. The stage "from the beginning to the splenic flexure" involves a higher risk for novices than the other stages. [1–6]

Conclusions The results indicate a higher ergonomic risk for novices, aligning with findings from other studies and demonstrating the feasibility of data captured by sensors and automatic analysis software for generating evaluation reports compared to conventional human observers.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP099 Comparison of the sequence between endoscopic examinations (gastroscopy and colonoscopy) both performed in a single procedure

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Aims Gastroscopy and colonoscopy are digestive explorations that may be indicated to be performed in the same session.

Currently, there is not enough evidence to prescribe an optimal sequence in terms of examination time and dose of propofol required, with gastroscopy-colonoscopy (G-C) or colonoscopy-gastroscopy (C-G) being performed first, leaving it up to the preference of the endoscopist to perform them in either order.

Purpose of this study is to compare the most effective sequence of endoscopic procedures (G-C versus C-G) in terms of timing as well as medication dose and complications rate.

Methods A retrospective descriptive analysis was performed between 2015 and 2019 at the Hospital Universitario del Sureste (HUS), Madrid (Spain). Anonymised data from different databases were included, including information of the patients and their endoscopic procedures. We included those explorations in that sedation was performed exclusively with propofol and those programmed (non-urgent) procedures.

The assignment of patients to one sequence or the other was based on the preference of the endoscopist (not randomised).

Results A total of 2049 procedures were analysed, including 1238 patients in sequence 2 (C-G) and 811 in sequence 1 (G-C), 55 % female and 45 % male, with an average weight of 72 kg and an average age of 62 years.

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The standard exploration time (32,24 minutes vs 33,18 minutes, p < 0,05) and the dose of propofol given (270,92 mg vs 282,35 mg, p < 0,05) was lower in the G-C sequence. In the C-G sequence, the number of complications was subtly lower (0,0202 vs 0,0259), although without statistical significance.
These results remained similar in the analysis by subgroups (sex, age and weight), finding that the amount of propofol given was significantly lower in the G-C sequence, without finding statistically significant differences in exploration time and number of complications in the analysis by subgroups.
Conclusions Considering procedure timing and propofol dose, the most efficient sequence in patients undergoing gastroscopy and colonoscopy in the same session is performing gastroscopy first followed by colonoscopy, as this reduces the total dose of medication as well as the total exploration time.
We found no significant differences in the number of complications reported between both sequences.
The main limitations of this study were the retrospective analysis of the data and the lack of randomisation of patients towards one sequence or another.
Conflicts of interest Authors do not have any conflict of interest to disclose.

Good sleep after good prep

26/04/2024, 10:00 – 11:00 **Science Arena: Stage 1**

MP100 Characteristics of bowl images predict the quality of colon cleansing before colonoscopy

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DOI 10.1055/s-0044-1783110
Aims The aim of the study was to detect predictors of bowel preparation from the characteristics of toilet bowl images to evaluate bowel preparation before the procedure. This will help in finding innovative solutions to improve the colonic preparation during colonoscopy.
Methods We collected 565 bowl images from 100 patients after the second dose of a split-dose preparation (using a high volume while adhering to a low-fiber diet for three days) between April 2023 and October 2023. The Boston Bowel Preparation Scale (BBPS) is divided into two categories: Good (≥ 8) and Inadequate (< 8). We classified the visual appearance (CVA) of the toilet bowl as 1) clear or cloudy with slight debris or 2) semi-clear watery stools with cloudy or thick particles. For each image, we improved accuracy by using image cropping, allowing us to extract numerous scores expressing different image characteristics using MATLAB. We then specified the corresponding mean scores of the image in RGB (Red, Green, Blue) and HSV (Hue, Saturation, Value).
Results A threshold was defined for each image feature using the area under the ROC curve (AUC). Each feature was categorized into four quartiles. The binary logistic regression showed a significant correlation between blue (threshold = 68, p = 0.013), saturation (threshold = 0.64, p = 0.007), the first quartile of hue (threshold ≤ 0.073; p < 001), and the last quartile of brightness (threshold ≥ 0.527, p = 0.002). Then, a binary logistic regression formula was established using the following formula: 1.676 x first quartile hue + 1.296 x last quartile brightness + 1.082 x saturation (threshold = 0.64) + 1.142 x blue (threshold = 97.5) – 0.774. The AUROC of the new distribution was equal to 0.716 [0.636-0.796] and revealed a threshold = 3. The classification based on regression with a cut-off of 3 (CRC3) (BBPS as dependant factor) showed that the last image before colonoscopy had a sensitivity = 80 %, specificity = 76 %, and accuracy = 85 %, whereas the previous images had a sensitivity, specificity, and accuracy of respectively, 80 %, 57 %, and 78 %. All images had a sensitivity = 80 %, specificity = 72 %, and accuracy = 76 %. Similarly, CRC3 with de CVA as dependant factor revealed the last image before colonoscopy had a sensitivity = 80 %, specificity = 44 %, and accuracy = 76 %, whereas the previous images had a sensitivity, specificity, and accuracy of respectively, 83 %, 30 %, and 57 %. All images had a sensitivity = 82 %, specificity = 31 %, and accuracy = 60 %.
Conclusions Blue, hue, saturation, and brightness of the toilet bowl image are the primary predictors of preparation quality. By using specific thresholds, we have established a two-step model to predict the quality of colon cleansing before performing the procedure. This method will allow the adjustment of the preparation strategy before undergoing colonoscopy to improve the final outcome of the procedure.
Conflicts of interest Authors do not have any conflict of interest to disclose.

MP101 Predictors of inadequate bowel preparation for colonoscopy: Study of the Last Bowel Movement Appearance, Body Mass Index and Diabetes

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DOI 10.1055/s-0044-1783111
Aims This study aims to investigate the interplay between body mass index (BMI), diabetes mellitus, characteristics of the last bowel movement before colonoscopy, and the quality of colonic preparation assessed using the Boston Bowel Preparation Scale (BBPS).
Methods We prospectively collected data from 158 patients over a period of three months, from August to September 2023. The quality of bowel preparation was assessed using a pre-endoscopy visual aid which is based on the color of the patient's last bowel movement an hour before the procedure.
Results Out of the 158 patients, 84(53.2 %) had yellow and clear stools like urine (YCSU), 42(26.6 %) had light orange and almost clear stools (LOAC), 16(10.1 %) had dark orange and semi-clear stools, 10(6.3 %) had brown and murky stools and 6(3.8 %) had dark and murky stools. With regards to the BBPS, 8(5.1 %) had a score of 9, 42(26.6 %) had a score of 8, 40(25.3 %) had a score of 7, 36(22.8 %) had a score of 6, 8(5.1 %) had a score of 5, 8(5.1 %) had a score of 4, 4(2.5 %) had a score of 3, 6(3.8 %) had a score of 2, 6(3.8 %) had a score of 1 and 0(0 %) had a score of 0. Putting those patients who had YCSU-like urine and those LOAC to one category, we have 126 patients (79.7 %). Out of these, the number of patients who had a BBPS score of 6 or more is 124(98.4 %). Out of these 126 patients, the number of patients with BBPS-R of 1 is 0(0 %), those with BBPS-R of 2 is 0(0 %) and those with BBPS-R of 3 is 2(1.6 %).
In addition, increasing BMI values weren't associated with higher proportions of inadequate bowel preparation scores. The successful bowel preparation rates were 76 % in non-obese patients and 81.48 % in obese patients (p = 0.42).
Furthermore, 36 diabetic and 122 non-diabetic patients were enrolled in this study. The successful bowel preparation rates were 55.5 % in the diabetics and 80.3 % in the non-diabetics, which was statistically significant ($p = 10^{-4}$). Cecal intubation rate was 22.2 % in the diabetics, 24.6 % in the non-diabetics, which wasn't statistically significant. But the colonoscopy was complete in 72.2 in the diabetics and 86.8 in the non-diabetics (p = 0.037).
Conclusions This study highlights the significant correlation between the pre-endoscopy visual aid and its effectiveness in predicting the adequacy of bowel cleansing. Additionally, while diabetic patients exhibited lower successful bowel preparation rates compared to non-diabetic patients, no significant association was found between increasing BMI values and inadequate bowel preparation. These are adjunctive methods for assessing bowel preparation quality before colonoscopy.
Conflicts of interest Authors do not have any conflict of interest to disclose.

MP102 Usefulness of intensifying colonoscopy preparation with macrogol 3350 in patients with prior inadequate bowel preparation

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DOI 10.1055/s-0044-1783112

Aims A inadequate bowel preparation is one of the biggest problems in getting a quality colonoscopy. The aim of this study is to evaluate the effectiveness of intesifying bowel preparation with Macrogol 3350 in patients with a previous inadequate bowel preparation.

Methods A single-center, non-controlled, low-intervention clinical trial. Colon cleasing quality was evaluated using the Boston Bowel Preparation Scale (BBPS). Adequate quality cleansing was defined as total BBPS score ≥ 6 and all segment scores ≥ 2. Patients were enrolled with BBPS scores ≤ 2 in some segment with a complete and correct preparation (split dosis regimen), including the low-fiber diet. All patients received high-volume PEG-based regimens at all colonoscopies Macrogol 3350 was added 2-3 sachets a day during low fiber diet days. Neither diet nor schedules were modified following standard clinical practice
Exclusion Criteria: Patients with colorectal surgery, inflammatory bowel disease, inpatients, intolerance or allergy to Macrogol 3350, who prefer other preparation than high-volume PEG-based regimen, pregnant women.

Results 50 patients were enrolled in our study. 5 were excluded. Overall adequate cleansing success was achieved by 84.4 % of patients after intensified preparation improved their score on the BBPS. Main characteristics of the patients: mean age 66,7 (SD 9.59), mean BMI 27,84 (SD 4,19), 51,1 % males, 49,9 % females,48,83 % prior constipation.
BBPS prior colonoscopy (Median) right colon 1 (IQR 1) to BBPS intensified colonoscopy (Median) 2 (IQR 2) p < 0.001. Transverse colon 2 (IQR 1-2) to 3 (IQR 2-3) p < 0.001. Left colon 2 (IQR 1-2) to 2 (IQR 2) p 0.001 Total BBPS 5 (IQR 4-5) to 7 (IQR 6-7.5) p < 0.001 respectively.

Conclusions Intensified colonoscopy preparation with Macrogol 3350 improves the score on the BBPS and improves the quality of colonoscopy. It is a cheap and easy preparation available for routine clinical practice.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP103 Low-Volume Preparation Protocol for Pan-Enteric Capsule Endoscopy is as Safe and Effective as Standard High-Volume Preparation Protocol

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DOI 10.1055/s-0044-1783113

Aims The Pan-enteric capsule endoscopy (PCE) is a non-invasive tool for monitoring Crohn's disease (CD) activity, allowing inspection of the entire gastrointestinal tract in one procedure without exposure to radiation or sedation. The aim of this study was to evaluate the safety and efficacy of a novel low-volume preparation protocol (LVP) compared with the standard high-volume preparation protocol (HVP).

Methods Part 1: A retrospective analysis of all consecutive PCEs performed between October 2018- June 2021, documented prospectively at our service. Exclusion criteria were: age < 18years or insufficient data. Patients were categorized according to the preparation protocol used [LVP group (~4200ml) vs. HVP group (~6700ml, controls)] and were compared in terms of clinical and demographic characteristics, bowel preparation adequacy, PCEs completion (defined by visualization of the rectum/toilet) and relevant findings. Adequacy of preparation was determined by two blinded independent expert readers (agreement assessed by Cohen's kappa test and correlation tests).Part 2: Individual meta-analysis – we created a new database that included individual patient data (dichotomous variables) previously published in three studies evaluating PCE with HVP protocol alongside our HVP group and defined a new group – "combined HVP" which we compared to the our LVP group. A p-value < 0.05 was used as a threshold value for determining statistical significance in all tests.

Results A total of 69 PCEs from 69 patients were performed during the study period. PCEs of two patients were excluded (one due to age < 18 years and one due to insufficient data) and 67 patients were included in the study (median age 35.1 years (range 19.4-90.2 years), 41.8 % males). Twelve patients (17.9 %) underwent PCE with standard HVP, and 55 (82.1 %) patients with LVP. The groups were comparable in terms of median age, gender, indication and characteristics of CD (p > 0.05 for all). No post-PCE complications were reported. PCE completion was achieved by 89.1 % of the LVP group and 75.0 % of the HVP group (p = 0.345). Similar completion rates were observed among the "combined HVP" (87.2 %, p = 0.824 vs. LVP). The rates of adequate SB preparation were comparable between the groups (LVP 89.1 % vs. HVP 90.9 %, p = 1.000; "combined HVP" 90.0 %, p = 0.807 vs. LVP). Although the rates of adequate colonic preparation were similar between LVP group (80.0 %) and HVP group (90.0 %, p = 0.282), the LVP group had higher rates of adequate colonic preparation compared with the combined HVP group (80.0 % vs. 62.7 %, respectively, p = 0.017).

Conclusions LVP appears to be a safe and effective alternative to HVP with similar completion rates and higher rates of adequate colonic preparation while using a significantly reduced total preparation volume, and no sulfate-based solutions. Nevertheless, this was a small, real world sample study, and the results should be further evaluated in randomized controlled studies. [1–3]

Conflicts of interest Dr. L. Deutsch has previously received payment for consulting and lecturing services from Medtronic LTD, yet the company was not involved in this study in any way.

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MP104 Colonoscopy in octogenarians and older patients with 1L polyethylene glycol plus ascorbic acid bowel preparation in the real-world setting

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DOI 10.1055/s-0044-1783114

Aims Colonoscopy for colorectal cancer (CRC) detection in octogenarians is technically challenging due to bowel preparation difficulties in this population. Poor preparation quality is reported in 25 % patients [1]. This may be due in part to difficulties in completing the bowel preparation. Specific data on bow-

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el preparation with 1L polyethylene glycol plus ascorbic acid (1L PEG + ASC) is lacking in patients aged ≥ 80 years. We therefore aimed to evaluate the colon cleansing effectiveness and tolerability of 1L PEG + ASC in this population.

Methods This was a post-hoc analysis of an observational, multicentre, retrospective real-world study that included outpatients aged ≥ 80 years, who received 1L PEG + ASC before undergoing colonoscopy in 8 centres in Spain and Portugal between July 2019 and September 2021 [2]. Cleansing quality was evaluated using the Boston Bowel Preparation Scale (BBPS). Adequate quality was defined as a BBPS score ≥ 6 with all segmental scores ≥ 2. High-quality cleansing was defined as a BBPS score ≥ 8 with a segmental score of 3 in the right colon. Cecal intubation rate (CIR), withdrawal time (WT), and polyp detection rate (PDR) were also assessed. Safety was assessed from recorded adverse events (AEs).

Results A total of 423 patients (49.2 % male) were included. Their mean age was 83.5 years (range 80 to 95 years). The indication for colonoscopy was screening for colorectal cancer (14.4 %), diagnostic (56.7 %), follow-up (25.5 %), or other (3.3 %). The bowel preparation method was either as a split-dose (40.9 %) or a same-day dose (59.1 %) regimen. In total, 94.1 % of patients completed the colonoscopy. Incomplete colonoscopy was reported in 5.9 % of patients, including 1 % due to poor preparation, 1.4 % due to stenosing cancer, 1.2 % due to technical difficulties, and 2.3 % for other reasons. Adequate cleansing in the overall colon was achieved in 88.9 % of patients with an overall high-quality colon cleansing rate of 54.1 %. In the right colon, adequate and high-quality cleansing were achieved in 90.5 % and 46.1 % patients, respectively. CIR was 94.9 %, with a mean WT of 8.4 minutes and the PDRs in the total colon and right colon were 45.6 % and 26.7 %, respectively. The incidence of AEs in was 4.5 %, with dehydration (2.8 %) and nausea (1.2 %) being the most reported AEs. No severe AEs were reported.

Conclusions Overall, these real-world data in octogenarians and older patients indicate that 1L PEG + ASC was highly effective and well tolerated, with over half of patients attaining high-quality total colon cleansing.

Conflicts of interest Carmen Turbi and Fatma Akriche are Norgine employees

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MP105 Evaluation of An Association Between Pre-colonoscopy Visual Aid Responses and the Boston Bowel Preparation Scale

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Aims The use of an intriguing tool termed the 'Pre-colonoscopy Visual Aid' in several centres has been shown to evaluate the efficacy of bowel cleanliness with commendable accuracy.

We aimed to investigate the relationship between pre-colonoscopy visual aid responses and the Boston Bowel Preparation Scale (BBPS)

Methods

A prospective analysis of colonoscopies performed between November 2022 and December 2022 was conducted. Data on patient demographics and visual aid responses were recorded during the initial assessment. For the latter, patients were asked to match their most recent stool colour against a chart with a spectrum of colours ranging from dark and murky to yellow and clear. Total/segmental (right, transverse and left colon) BBPS scores, extent of intubation and examination findings were later collected via the endoscopic reporting software (InfoFlex). The primary outcome was a total BBPS score of ³6, defined as good bowel preparation. The secondary outcomes were the segmental BBPS scores (adequate cleaning defined as ³2), completion (defined as caecal/ileal intubation) and polyp(s) detection rates.

Results 98 patients were included in this study. The median age was 64.5 years with a male preponderance (n = 54, 55.1 %). On the pre-procedural assessment, 65 patients (66.3 %) had yellow and clear stools, followed by 20 patients (20.4 %) with light orange and almost clear stools, 8 patients (8.2 %) with dark orange and semi-clear stools and 5 patients (5.1 %) with brown and murky stools. A total of 80 patients (81.6 %) achieved a total BBPS score of ³6. Most individuals (n = 54, 67.5 %) reported clear and yellow stools, followed by those with light orange and almost clear stools (n = 17, 21.3 %), those with dark orange and semi-clear stools (n = 6, 7.5 %) and those with brown and murky stools (n = 3, 3.7 %). The predominant group in the BBPS-R, BBPS-T and BBPS-L ³2 cohort were those with yellow and clear stools (69.4 %, 67.4 % and 64.4 % respectively). Out of the 92 completed procedures, 61 (66.3 %) recorded yellow and clear stools on the visual analogue scale. Among the 60 cases where polyp(s) were observed, the majority had yellow and clear stools (n = 44, 73.3 %).

Conclusions Pre-colonoscopy visual aid responses appear to be an accurate predictor of BBPS, making it a simple yet useful adjunct in the pre-procedural bowel preparation assessment. Other advantages include higher completion and polyp detection rates.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP106 Comparable un-passed patency capsule rates among Crohn's disease patients during Clinical remission using different preparation protocols

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Aims Patency capsule (PC) ingestion has been proven to be a useful tool in assessing small-bowel patency before ingestion of capsule endoscope. However, false positive results of un-passed PC due to colonic hypomotility/constipation, may wrongfully preclude the use of CE in this population. Therefore, we aimed to evaluate the efficacy of intense bowel-preparation protocol before PC ingestion versus standard clear fluid-diet to reduce un-passed PC rates in patients with Crohn's disease (CD) in clinical remission.

Methods This was a bicenter cohort of adult patients (≥ 18 years-old) with small-bowel CD (L1/L3) in clinical remission, who underwent PC ingestion before CE procedure. Each center regularly follows a different preparation protocol. Patients in the intense-protocol group adhered to a low-residue diet followed by a clear fluid diet for 12 hours and fasting for 12 hours before ingestion. During capsule ingestion they were also given 10mg of Bisacodyl. Drinking and eating were resumed after 2- and 4-hours post-ingestion, respectively. Clear fluids were consumed by the control group. Propensity-score matching (PSM) in a 1:1.75 ratio was performed with adjustment for age, sex, CD-duration > 1year and B2/B3 disease-phenotype, with regards to the intense preparation-protocol. The primary outcome was defined as un-passed PC (i.e., the absence of PC excretion in the stool or its presence in the abdomen by abdominal X-ray within 30 hours from ingestion).

Results 269 patients were included (intense group-79, control group-190). The cohort following the PSM comprised of 212 patients (intense group-77, control group-135). The median age was 38 (28-47) and 32 (24-47) years-old in the intense-protocol and the control groups (p = 0.080), respectively. In both groups, ~56 % of the patients were male (p = 0.949). Patients in the intense-protocol group had lower rates of colonic and proximal small-bowel involvement (23.4 % vs. 41.5 %, p = 0.008, 5.2 % vs. 14.1 %, p = 0.046, respectively). Current biologic use was less common in the intense-protocol group compared to the

controls (37.7 % vs. 61.2 %, p = 0.001). Un-passed PC rates were 13.0 % (10/77 patients) vs. 19.3 % (26/135 patients) in the intense-protocol and the control groups, respectively (p = 0.242). On univariable analysis longer disease-duration (OR 1.042, 95 % CI 1.002-1.085, p = 0.040) was the only variable to be associated with un-passed PC. Age ≥ 40 was associated with increased risk for un-passed PC as well, however only borderline significance was achieved (OR 1.917, 95 % CI 0.927-3.967, p = 0.085). Upon multivariate logistic regression analysis, there was no clinico-demographic/disease-related variable that was independently associated with the probability for un-passed PC. Of 269 patients, there was a single subsequent CE retention in the control group, which has resolved spontaneously (0.4 %).

Conclusions Intense-preparation protocol based on low-residue diet and laxatives was not superior to clear fluid diet alone, for reducing the rates of un-passed PC and for increasing successful patency test of small-bowel, among CD patients in clinical remission.

Conflicts of interest Shomron Ben-Horin has received Advisory board and/or consulting fees from Abbvie, Takeda, Janssen, Celltrion, Pfizer, GSK, Ferring, Novartis, Roche, Gilead, NeoPharm, Predicta Med, Galmed, Medial Earlysign, BMS and Eli Lilly, holds stocks/options in Predicta Med, Evinature & Galmed, and received research support from Abbvie, Takeda, Janssen, Celltrion, Pfizer, & Galmed. Uri Kopylov received speaker fees from Abbvie, Janssen and Takeda, research support from Takeda and Janssen and consulting fees from Takeda and CTS. Rami Eliakim received consultant and speaker fees from Janssen, Abbvie, Takeda and Medtronic. Nitsan Maharshak has received speaking and/ or consulting fees from Pfizer, Abbvie, Lilly, Takeda, Janssen, Ferring, BiomX, BMS, Nestle, Trobix Innovation, Teva and grant support from Takeda, Janssen, Abbott, Abbvie, Pfizer, BMS, Corundum Innovation Ltd, Nestle. Ayal Hirsch has received speaking honoraria from Perigo, Padagis, Janssen, Abbvie, Takeda and received grants from Janssen, Takeda and Abbvie. Tamar Thurm has received lecture fee from Takada. Liat Deutsch has previously received payment for consulting and/ or lecturing services from Medtronic, Neopharm, Abbott, Abbvie, and Fresenius Kabi.The remaining authors declare that they have no conflicts of interest.

MP107 Is balanced propofol sedation safe in elderly patients over 65 years of age undergoing ERCP?

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Aims The sedation method of balanced propofol in endoscopy has been proven to be safe and commonly used methods in endoscopy. Unlike diagnostic endoscopy, endoscopic retrograde cholangio-pancreatography (ERCP) procedure requires a lot of time and patients cooperation. In particular, there are few studies on safety of ERCP using balanced propofol sedation in elderly patients. We evaluate the safety and efficacy of balanced propofol sedation during ERCP in patients over 65 years of age.

Methods A retrospective analysis is performed on patients with ERCP conducted at Chosun university hospital from 2019 January 1 to 2020 December 31. Among a total of 1119 ERCP procedures, 564 procedures of ERCP with balanced propofol sedation for patients over 65 years of age are finally enrolled. In all tests, midazolam 1mg bolous injection is administered followed by 10-20mg of propofol to lead to deep sedation. For each test, blood pressure, heart rate, oxygen saturation and adverse events are recorded before, during, and after the procedure.

Results In a total of 564 tests, the average amount of profofol used is 102.79 ± 68.04mg and the procedure time is 30.0 ± 13.64 min. During procedure, patient with hypotension is 10 patient (1.7 %) and patients with bradycardia are 27 patients (4.79 %). Patients with hypoxemia (< 90 %,O2 saturation) are 49 patients(8.69 %), 42 patients(7.4 %) are recovered with O2 supply through nasal cannula. Bag-valve-mask ventilation is performed in 7 patients (1.24 %), and all patients are recovered after the procedure and there are no sequelae. Hypotension and bradycardia are not statistically significant, but hypoxemia show statistical significance in relation to procedure time and propofol dose. (p < 0.05)

Conclusions Even with complications of balanced propofol sedation method, considering safety and efficacy, the balanced propofol sedation in ERCP can be used as a good sedative method in elderly patients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP108 Impact of sedation on post colonoscopy colorectal cancer (PCCRC) deaths

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Aims Use of sedation is associated with a positive effect on endoscopists ADR and a higher proportion of colonoscopies with a withdrawal time > 10min. However, the impact of sedation on the risk of post colonoscopy colorectal cancer (PCCRC) remains unclear.

Methods Retrospective cohort study within a large population based screening program database in Austria, the association of sedation in screening colonoscopy with post-colonoscopy colorectal cancer death was analysed. Logistic regression was used to estimate the effect of sedation on PCCRC-death

Results 407.598 screening colonoscopies were analyzed. In 371.132 (91,1 %) sedation was used. 46.8 % of sedated patients were men compared to 68,2 % in unsedated patients (HR 1.94 (1.60, 2.35), p < 0,001). Coecum was reached in 97.3 % of sedated and 95.5 % of unsedated individuals. (HR 4.22 (3.06, 5.82) p < 0,001).

Cumulative incidence of PCCRC in unsedated individuals was 0.05 (95 % CI 0.05-0.5) after 4 years, 0.07 % (0.07-0.07) after 6 years, 0.11 % (0.11-0.11) after 8 years, 0.14 (0.14-0.14) after 10 years, 0.18 % (0.18-0.18) after 12 years. In unsedated patient, cumulative incidence was 0.1 % (0-1-0-1) after 4 years, 0.15 % (0.15-0.15) after 6 years, 0.22 % (0.21-0.23) after 8 years, 0.25 % (0.24-0.26 %) after 10 years, 0.27 % (0.26-0.28) after 12 years. Hazard ratio was 1.31 (0.94-1.83, p = 0.1) for sedation in PCCRC-deaths.

Conclusions Incidence of PCCRC-death was higher in unsedated patients, however this effect was not significant and probably an effect of lower cecal intubation rate within unsedated patients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP109 Clinical Long-term Sedation Profiles of Remimazolam Compared with Propofol for Gastric Endoscopic Submucosal Dissection: Prospective, Single-Center Pilot Study

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DOI 10.1055/s-0044-1783119

Aims Remimazolam is a short-acting benzodiazepine approved by the US Food and Drug Administration (FDA) for procedural sedation. Remimazolam now has been utilized to sedate adults during invasive medical procedures, such as gastrointestinal endoscopy and bronchoscopy. This study aims to compare the efficacy and safety of remimazolam with propofol during gastric endoscopic submucosal dissection.

Methods This study was conducted as a single-center pilot study at Korea University Medical Center. A total of 40 patients were enrolled and randomized. The primary endpoint was safety, assessed by the incidence of hypotension and respiratory depression. Secondary endpoints included the dose of sedatives administered and sedative satisfaction. Remimazolam was titrated from an

initial bolus of 5 ml to achieve target sedation, with vital signs monitored at 5-minute intervals throughout the procedure.

Results The mean procedure times in each group were 29.5 ± 8.4 (min) and 32.8 ± 5.9 (min), respectively. The sedative doses used during the procedure were 12.5 ml and 21.8 ml. Hypotension was observed in 2 (10 %) and 4 (20 %) patients in the remimazolam and propofol groups, respectively. Respiratory depression was observed in 3 patients (15 %) in the remimazolam group and 4 patients (20 %) in the propofol group, with no statistical difference between the two. There was no difference in overall sedation-related satisfaction between the two groups, with scores of 8.5 and 8.8, respectively.

Conclusions Remimazolam exhibited a satisfactory sedation profile compared to propofol, and it appears that further comparison with a larger patient cohort will be necessary in the future.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Revolutionizing Weight Management: Advances in Bariatric and Metabolic Endoscopy

26/04/2024, 10:00 – 11:00 **Science Arena: Stage 2**

MP110 Evaluation of GPT-4 for common questions regarding anti-obesity medications. A comparative analysis

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DOI 10.1055/s-0044-1783120

Aims Large language models (LLM) such as GPT-4 are being increasingly used to answer common medical questions. The accuracy and understandability of responses generated by LLMs as it relates to anti-obesity medications (AOMs) is unknown. This study evaluated GPT-4 generated responses to common AOM related questions and compared these to Food and Drug Administration (FDA) patient information sheet.

Methods We prompted GPT-4 LLM (Oct 2023) with five commonly asked questions by patients regarding FDA-approved AOMs (Liraglutide, Semaglutide, Phenteramine/Toiramate, Bupropion/Naltrexone and Orlistat). Prompts evaluated 5 major themes: mechanism of action, serious adverse events, concerns with pregnancy and lactation, missing a dose of drug, and expected weight loss. Responses generated by GPT-4 were compared to FDA responses to the same questions as extracted from FDA patient information sheet. In some cases, formatting (but not the content) of the FDA response was modified to preserve blinding. Each response (FDA or GPT) was evaluated by 5 physicians (3 board certified internal medicine and 2 board certified gastroenterologists). Physicians were blinded to the source of the response. Responses were graded by a 5-point Likert scale on accuracy of the content and ease in understanding, as well as the usability for patient communication (yes/no).

Results Each physician graded 49 responses (25 GPT-4, 24 FDA [FDA information sheet does not contain a response regarding efficacy of Orlistat]). Pooled accuracy of identifying whether a response was GPT generated was 49.3 % (95 % Confidence interval, 42.9-55.8 %) suggesting that the GPT responses are indistinguishable from the FDA. GPT-4 generated responses were deemed to be either mostly or completely accurate in 90.4 % of cases while two responses were marked as mostly inaccurate. Both inaccurate responses were regarding expected weight loss (One each for Bupropion/Naltrexone and Semaglutide). Proportion of responses graded to be 'easy' or 'very easy' to understand were similar between GPT-4 generated and FDA responses (82.4 % vs. 78.4 % respectively, p = 0.8). Four responses (2 each by GPT-4 and FDA) were graded as difficult to understand. Respondents would use a similar proportion of GPT-4 and FDA responses in patient communications (72.8 vs. 67.5 %, p = 0.3).

Conclusions GPT-4 generates accurate and easy to understand responses to common questions regarding AOM. Due to their ease of understanding, GPT-4 generated responses can be used in patient communication after physician review. The expected weight loss does not appear to be reliably answered using GPT-4.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP111 Evaluation of the safety and utility of the Radiofrequency Vapor Ablation (RFVA) system for duodenal mucosal ablation in a porcine model: a novel therapeutic strategy for type 2 diabetes (T2D)

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DOI 10.1055/s-0044-1783121

Aims Duodenal mucosal ablation (DA) is a promising endoscopic treatment for metabolic disease including T2D. A multitude of technologies are in development; however, limitations exist around usability, ablation uniformity, and adverse events. Vapor ablation, using the FDA cleared Aqua Medical RFVA system, is an emerging therapy that could be used for DA. Proof-of-concept data in Barrett's esophagus has established its safety and technical feasibility [1]. We aimed to evaluate the safety and utility of RFVA in the duodenum in a porcine dosimetry pre-clinical study.

Methods The RFVA system is a disposable, single-use, through-the-scope (10.5 FR), circumferential ablation catheter, which connects to a generator and uses bipolar RF energy to convert saline into heated vapor at the catheter tip. When deployed, two 30mm silicone covered nitinol discs enclose a 2.5-3.6cm ablation zone. Here, water vapor is released and directed to target tissue (Fig.1a). Between June '22-January '23, ten chronic (21-day) and seven subacute (1-day) animals were treated in IACUC approved survival studies to evaluate the effect of RFVA in Yorkshire swine duodenal tissue. The primary aim was to assess the depth and circumferential extent of thermal tissue necrosis (1-day), and the depth and circumferential extent of tissue fibrosis (21-day). A series of ablations at different energy doses (180-400J) were performed with single or overlapping double application in the post-ampullary duodenum. Necropsy was performed at day-1 or 21, and the duodenum assessed macroscopically and microscopically (H&E stains, 5-10 mm cuts) by an expert veterinary pathologist.

Results All intended RFVA treatments were delivered successfully. For **chronic studies**, no gross pathological lesions or complications were identified in any animal at dose ranges 200-300J. Microscopic assessment of seven treatment areas involving 32 ablations at 200J showed one pinpoint focus (< 1mm) of a fibrotic scar in the muscularis propria of unclear significance. Significant macroscopic lesions (stricture/micro-perforation), however, were noted at 400J. For **subacute studies**, no gross findings except mucosal necrosis were seen in animals treated with 180-200J (Fig.1b). Mucosal necrosis depth ranged from 25-100 % of mucosal thickness, and circumferential involvement ranged from 5-100 % (Fig.1c). Extension of thermal injury into submucosa or superficial muscularis was rare, and when occurred, was small (≤ 1mm) and only on microscopic examination.

Conclusions In this pre-clinical study, vapor ablation using the RFVA system at a dose ≤ 200J can be safely applied for DA. Clinically significant muscularis propria involvement was only encountered at 400J, establishing a broad safety margin. Based on these results, we have launched a pilot clinical trial among 30 patients with T2D.

Conflicts of interest RH has received educational grants to support research infrastructure from Cook Medical, Odin Vision, Pentax Medical, Endogastric Solutions, Apollo Endosurgery, Medtronic, Aqua Medical

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MP112 Comparative assessment of different methods of bariatric treatment of obesity on the condition of the mucosa esophagus and stomach

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DOI 10.1055/s-0044-1783122

Aims To evaluate the functional state of the stomach in the preoperative period and the morphological changes of the mucosa of the esophagus and stomach in the postoperative period, depending on the surgical bariatric technique

Methods From 2010 to 2022, 111 patients with morbid obesity were operated on, of which 57 patients were examined. In the preoperative period, the functional state of the stomach was determined (measurement of intraluminal pH) and the morphological state of the stomach was assessed (histological assessment according to the Sydney protocol). After the operation, the patients were divided into 2 groups: Group I – 34 patients who underwent longitudinal gastric resection, Group II – 23 patients with biliopancreatic bypass in the Hess-Marseau modification.In the postoperative period (after 12 months), a control endoscopic examination was performed, and in the presence of visual changes in the gastric mucosa, a repeated morphological (histological) assessment was performed according to the Sydney protocol.

Results In 43 patients (75 %) functional changes of the stomach were detected. There was hypersecretion in 20 (35 %) patients, normal acid production in 14 (25 %), anacidity in 6 (10.5 %), hypoacidity in 17 (28 %). In 49 patients, chronic nonatrophic gastritis was histologically confirmed, of which 32 were associated with Helicobacter pylori (before the operation, they were treated with control of eradication by determination of Helicobacter pylori antigen in feces). During the control endoscopic examination, a biopsy was performed according to the recommendations (MAPS II). In the 1st group, 8 patients and 4 patients from the 2nd group had reflux esophagitis (stages A-D according to LA). During the visual assessment of the gastric mucosa, no structural changes were detected in 28 patients from the I group and in 8 patients from the II group. In 6 patients of the I group and 15 of the II group, a histological examination was performed for the morphological diagnosis and stratification of gastritis. Results: Group I: 1 patient – chronic atrophic gastritis (OLGA I/ OLGIM 0), 5 patients – chronic nonatrophic gastritis. In the II group: 8 – chronic nonatrophic gastritis, 7 – chronic atrophic gastritis (OLGA I-III/ OLGIM 0-I). [1–4]

Conclusions Morbid obesity causes functional and morphological changes in the stomach. After bariatric treatment, patients may experience complications associated with a change in acid production, depending on the method of intervention, there is a tendency to develop GERD or chronic atrophic gastritis. The choice of the method of bariatric treatment should take into account the primary state of gastric acid production and the morphological assessment of the gastric mucosa, predict possible complications and predict not only a decrease in body weight, but also the effect on the normalization of the secretory function of the stomach and prevent the occurrence of threatening complications.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP113 The safety and efficacy of endoscopic vacuum therapy for the management of leaks following bariatric surgery: A systematic review and meta-analysis

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Aims Bariatric surgery is a highly effective treatment for patients living with obesity. However, it is not without risk and anastomotic leaks represent a dreaded complication. Reoperation for leaks is technically difficult and associated with major morbidity. Endoscopic vacuum therapy (EVT) is an emerging technology for treating post-bariatric surgery (PBS) leaks. During EVT, a polyurethane sponge is delivered endoscopically to the leak site to apply negative pressure. Early data confirms efficacy over conventional endoscopic techniques. We conducted a systematic review and meta-analysis to determine the pooled safety and efficacy of EVT for PBS leaks, and then compared it to conventional endoscopic therapy.

Methods A systematic search was performed in MEDLINE and EMBASE until November '23. The primary outcome was clinical success, defined as complete resolution of PBS leak after EVT. Secondary outcomes included need for adjuvant therapy and serious adverse events (SAE). A proportional meta-analysis was completed, followed by a second systematic search using the same primary outcome, to compare EVT and self-expanding metal stents (SEMS) for managing upper gastrointestinal (GI) leaks. We used a random-effects model, and report percentages for pooled rates, and odds ratios (OR) for comparative data with 95 % confidence intervals (CI).

Results In total, eight retrospective studies were included in our initial analysis between 2016-2023 (96 patients; average age 39.0-51.5 years old; 72.9 % female; 76.3 % post-sleeve gastrectomy). Only one study compared success against a comparator (SEMS). The pooled clinical success was 92.4 % (95 % CI; 87.3-97.6; $I^2 = 0$ %) among an average number of treatment sessions ranging from 2.0-10.5, and treatment duration ranging from 7.3-55.7 days. Initial drainage was required in 55.5 % (95 % CI; 31.9-79.1 %; $I^2 = 74.4$ %), adjuvant endoscopic therapy during EVT treatment in 24.8 % (95 % CI; 8.3-41.4 %; $I^2 = 84.6$), and non-endoscopic therapy in 12.8 % (95 % CI; 1.8 %-23.8 %; $I^2 = 69.8$ %). The pooled rates of serious adverse events were 7.8 % (95 % CI; 2.5-13.0; $I^2 = 3$ %). In our subsequent systematic review, we included six studies (542 patients) that compared the efficacy of EVT versus SEMS for upper GI leaks. There was no significant difference in clinical success (OR:2.67; 95 % CI; 0.93-7.65; $I^2 = 69.0$ %), but EVT was associated with a 69 % reduction in SAEs (OR:0.31; 95 % CI; 0.15-0.65; $I^2 = 0$ %).

Conclusions EVT is highly effective for managing PBS leaks with low adverse events, although they frequently require adjuvant therapy during treatment. Compared to SEMS, EVT has similar efficacy for managing upper GI leaks albeit better safety profile. However, high-quality prospective data is required before it is recommended first-line. The disadvantage of these therapies could be mitigated by adoption of VACStent that combines both SEMS and EVT.

Conflicts of interest RH has received educational grants to support research infrastructure from Cook Medical, Odin Vision, Pentax Medical, Endogastric Solutions, Apollo Endosurgery, Medtronic, Aqua Medical

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MP114V Treatment of a staple-line leak after laparoscopic sleeve gastrectomy using an esophago-duodenal Niti-S Mega-stent

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DOI 10.1055/s-0044-1783124

Abstract Text Laparoscopic sleeve gastrectomy (LSG) has become the most frequently performed bariatric surgery. Staple-line leak occur in 5.5 % of cases and is associated with significant morbidity. A 56-year-old female with class 3 obesity was admitted 2 weeks after LSG due to fever and abdominal pain. Upper endoscopy showed a 10-mm leak at the esophago-gastric junction with contrast extravasation. After 0,038'' guidewire placement through the proximal jejunum, a Niti-S Mega-Stent 28x230mm was deployed under fluoroscopy. Oral nutrition was started uneventfully. After 8 weeks the stent was removed, and granulation tissue was observed with no contrast extravasation. Endoluminal stenting is commonly used for staple-line leaks after LSG. Mega-stent offers complete bridging between esophagus and the duodenum, overcoming self-expandable metal stents' limitations and increasing treatment success [1–5].

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/3bcfd7d9-43eb-4162-ba2a-5c12a5038506/Uploads/13821_Mega-stent(1).mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP115 Long-term results of Endoscopic Sleeve Gastroplasty

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DOI 10.1055/s-0044-1783125

Aims Obesity is a chronic and recurrent disease. In the past few years, Endoscopic sleeve gastroplasty (ESG) has emerged as a minimally invasive technique to fill the therapeutic gap between medical and surgical approaches to obesity. ESG consists of full-thickness suturing of the gastric body aimed at restricting gastric volume and impairing gastric motility. Most of the published data on ESG show the results of the procedure in the first 12-24 months. In this study, we aim to report long-term results of ESG to implement the evidence of long-term effectiveness further.

Methods A retrospective analysis was performed on a prospective database including patients with obesity (BMI ≥ 30 kg/m²) who underwent ESG between May 2017 and March 2022 at a single tertiary Center. Before ESG, all patients were evaluated and identified as eligible for the bariatric procedure by the local bariatric multidisciplinary team. Weight loss (%EWL, %TBWL) and quality of life (Bariatric Analysis and Reporting Outcome System, BAROS questionnaire) were evaluated during follow-up. All patients were included in a multidisciplinary follow-up scheduled at 1, 3, 6, and then every six months, as per routine clinical practice.

Results Between May 2017 and March 2022, 315 subjects (73 % Female) underwent ESG with a median BMI of 36.8 (34.7-40.5) kg/m² at baseline and a median age of 46 (36-55) years. No severe procedure-related adverse events occurred. Patients in our cohort showed a median %TBWL of 16.9 % (IQR 8.5) at 6 months, 16.0 % (IQR 11.3) at 12 months, 12.8 % (IQR 13) at 24 months, and 13.3 % (14.3) at 36 months. Similarly, %EWL was 32.0 % (IQR 17.8) at 6 months, 49.9 % (IQR 36.1) at 12 months, 39.3 % (IQR 40.9) at 24 months, and 33.7 % (45.1) at 36 months. The median BAROS score was 4 (IQR 2), 3.5 (IQR 2.5), 3 (IQR 3.1) and 3 (IQR 4) at 6, 12, 24, and 36 months, respectively. Notably, 73 % of treated patients exhibited a %EWL > 25 % at 24 months, which is the current threshold defining the efficacy of a primary bariatric procedure. Similarly, 77.6 % of subjects recorded a %TBWL > 5 % two years after ESG, which is relevant as this threshold is related to obesity-related comorbidities improvement.

Conclusions Our experience confirms that ESG in the setting of a multidisciplinary approach is a safe and effective procedure for the treatment of obesity, associated with sustained weight loss and improved quality of life.

Conflicts of interest Cristiano Spada is a consultant for Medtronic and AnX Robotics and received speaker's fees from Olympus and PentaxIvo Boskoski is a consultant for Apollo Endosurgery, Boston Scientific, Nitinotes, Pentax, Cook Medical, Microtech, ERBE, and Endo Tools Therapeutics

MP116 Evolution of hepatic stiffness and steatosis in an obese cohort underwent Endoscopic Sleeve Gastroplasty

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DOI 10.1055/s-0044-1783126

Aims Obesity is a multifactorial, chronic, and relapsing disease that by 2030 could potentially affect one in four Italian adults. Among the obesity-related diseases, metabolic dysfunction-associated steatotic liver disease (MASLD) is becoming one of the leading causes of cirrhosis. Waiting for new therapies, weight loss is still the most effective treatment to prevent the evolution of MAFLD. Endoscopic sleeve Gastroplasty (ESG), ensuring adequate weight loss and being potentially repeatable, may represent an effective therapy for MAFLD. Few studies have assessed the impact of ESG on liver elastography assessment.

Methods A prospective, single-arm study was conducted involving a cohort of patients undergoing gastroplasty between November 2022 and March 2023, who provided their consent to undergo liver elastography (Fibroscan). The indices of steatosis (CAP) and fibrosis (LSM) hepatic and weight loss were evaluated at baseline and 6 months after ESG.

Results A total of 14 subjects (13 women) were involved: mean age 43 ± 12 years, weight 94.9 ± 13.2 kg, BMI 35.4 ± 3.8 kg/m². Out of the total, weight loss and elastography evaluation were available for 9 and 8 of them, respectively. After 6 months, a TBWL > 10 % was reached by 8/9 subjects (mean value

16.86 ± 0.06 %). At the same time, there has been a significant reduction in the CAP (mean 246 vs 312.9; p < 0.01) and LSM (mean 5.23 vs 6.8; p < 0.01). Steatosis grade improved in 7/8 subjects [from S3 to S2(1), to S1(3) and to complete remission (2)], while one patient remained in S1 grade. Similar results occurred for LSM: one patient moved from F3 to F0-F1, two from F2 to F0-F1, while four subjects remained in F0-F1 class. Only one subject had a worse score (from F0-F1 to F2) at the follow-up (8.4 vs 4.6).

Conclusions Based on the results of our small cohort, it can be said that ESG is an effective treatment for MAFLD with around 90 % of subjects reaching the target 10 % TWBL after six months. However, long-term and prospective studies on a larger population are needed. Moreover, considering the spread of ESG, it would be useful to include the non-invasive evaluation of MAFLD in the pre-operative and follow-up algorithms of all patients given the relatively low cost and time of the procedure.

Conflicts of interest Author I.B. is a consultant for Apollo Endosurgery, Boston Scientific, Cook Medical, EndoTools, Nitinotes, Pentax Medical and Erbe Elektromedizin, and has received honoraria for lectures from Microtech. I.B. holds the patents of the Boškoski-Costamagna ERCP Trainer (USA No.: US D740,361 S [Endoscopy Training Apparatus]) and the stent for electrothermal treatment (patent no.: 0001426680, Class A61B1814). I.B. is a member of the European Society of Gastrointestinal Endoscopy Governing Board.

MP117 Different intragastric balloon's fill volume: 500, 600, or 700 ml- any difference in outcome?

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DOI 10.1055/s-0044-1783127

Aims Obesity awareness has recently increased following its pandemic evolution. Besides nutritional and lifestyle modifications and pharmacological therapy, many other therapeutic strategies have been evaluated, with fluid-filled intragastric balloon (FF-IGB) being the most prevalent. There is still no consensus around which is the best fill volume for FF-IGB, that is usually filled according to the physician's expertise, with the aim to tailor the filling on patient's BMI and stomach dimension. This study aimed to focus on any differences concerning the fluid-filled intragastric balloon's filling volume.

Methods This was a single-center, observational prospective study of obese patients undergoing FF-IGB (Medsil, Orbera, or Spatz3) with a random fill volume of 500, 600, or 700 ml of saline and Methylene Blue. The outcomes were evaluation of post-procedural complications (pain, nausea, and vomiting), percentage of early removal for intolerance, percentage of Total Body Weight Loss (TBWL %), percentage of Excess Weight Loss (EWL %) and quality of Life (QoL) at 6 months follow-up according to different fill volume of 500, 600, or 700 ml.

Results Between July 2020 and April 2023, 153 obese patients (41.7.5 ± 9.02 kg/m2, 46.2 ± 14 years) underwent FF-IGB. No differences were detected in post-procedural complications (pain p = 0.180, nausea p = 0.718, and vomiting p = 0.480) or early removal (p = 0.870). At 6 months follow-up the mean TBWL % was 14.6 ± 7.14, EWL % was 30.8 ± 23.30, with no differences among the three groups (p = 0.882 and p = 0.733, respectively). Also QoL improved at 1, 3, and 6 months follow-up and no differences among the three groups (p = 0.819, p = 0.822, p = 0.849) were noticed.

Conclusions An IGB's fill volume of 500, 600, or 700 ml seems to be the same in terms of post-procedural complications, percentage of early removal for intolerance, TBWL %, EWL % and QoL at 6 months follow-up, independently of the initial patients' BMI.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP118 Adjustable Intragastric balloon in Nonalcoholic Steatohepatitis – enhanced weight loss and histological improvement

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Aims Higher proportion of patients with metabolic dysfunction-associated steatohepatitis (MASH) and obesity fibrosis and cirrhosis which can regress with weight loss. Limited studies have evaluated role of adjustable Intragastric Balloon (aIGB) in this settings. We therefore aimed to assess the impact of aIGB placement on the metabolic and histological aspects of NASH, emphasizing its potential for inducing significant weight loss necessary for NASH resolution.

Methods Thirty-six consenting patients (Females-47.23 %; mean age-39.8 years, mean BMI 35.4 kg/m^2) underwent endoscopic ultrasound-guided liver biopsy at aIGB placement between September 2020 and February 2023 in this prospective study. The primary outcome was the change in the nonalcoholic fatty liver disease activity score (NAS), and secondary outcomes were weight reduction, ALT improvement, fibrosis and steatosis scores, and adverse events.

Results At 6 months, the mean total body weight loss (TBWL) was 12.65 kg (95 % CI 10.38 – 14.92), with at least 5 % TBWL achieved in 32 (88.89 %) patients. Adjustment of aIGB was required in 27 (75 %) due to weight loss plateau or intolerance. A significant improvement in NAS score at six months compared to baseline was observed (median (IQR) 3 (3 – 4) and 1 (0 – 1.75)), with NAS improvement seen in 91.67 % (33/36) of patients. Fibrosis improvement was observed in 77.78 % (28/36). There was significantly higher improvement in NAS score (p < 0.001) and steatosis (p = 0.002) in patients who underwent upward volume adjustment (n = 24)compared to those who did not (n = 12). The mean ALT level significantly improved at 6 months (86.36 ± 27.14 versus 38.53 ± 16.57; p 0.001). No serious adverse events were reported. [1]

Conclusions Adjustable IGB is safe and effective in patients with obese MASH. aIGB led to improvement in NAS score and fibrosis score with a concomitant reduction in weight in a significant proportion of patients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP119 The relationship between visit frequency and weight loss in intragastric balloon procedure

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Aims Intragastric balloon (IGB), is an effective method for managing the obesity. However, clinic data about visit frequency and its relation with weight loss is limited. Therefore, we investigated the relationship between visit frequency and weight loss in IGB.

Methods This study is a retrospective analysis of 99 patients who underwent Medsil and Orbera IGB placement between October 2021 and March 2023 in a *Private Clinic* in Ankara. Balloon volume was adjusted between 500 and 700ml. Data was collected at baseline and at every visit during 6 months. Patients were followed up by a bariatric dietitian online or face-to-face at weekly intervals for two months, thereafter every two weeks.

Results Ninety-nine patients were enrolled. 8 (12.7 %) patients showed intolerance and required early removal of the balloon and one patient was lost to follow-up. A total of 90 patients with mean age of 37.40 ± 10.27 years, whom 79 (87.8 %) were female were included in the final analysis. Before IGB, mean body weight was 91.49 ± 15.32 kg and mean body mass index (BMI) was 33.39 ± 4.81. Sixth month results after the IGB revealed that mean total body weight loss (TBWL) was 14.30 ± 7.57 kg, %TBWL was 15.56 ± 7.72 % and mean

change in BMI was 5.24 ± 2.81. In addition, ≥ 5 % TBWL, ≥ 10 % TBWL and ≥ 15 % TBWL was achieved in 92.2 %, 76.7 % and 53.3 % of patients, respectively. Regarding visit frequency, mean TBWL was 7.27 ± 4.53 kg, 10.15 ± 6.76 kg, 16.85 ± 6.93 kg, and 19.17 ± 5.24 kg in those with a visit frequency between 1-5, 6-10, 11-15, and > 15 during six month, respectively (p<0.001).

Conclusions IGB is an effective procedure for weight loss, with minimal adverse effects. Higher number of visits suggest greater weight loss in obese patients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

ERCP techniques and outcomes

26/04/2024, 11:30 – 12:30 **Science Arena: Stage 2**

MP120 Impact of periampullary diverticulum on ERCP outcomes, per procedure indication: A 10-year retrospective study

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Aims There is conflicting data regarding the effect of periampullary diverticulum (PAD) on endoscopic retrograde cholangiopancreatography (ERCP) cannulation rates as well as on post-ERCP (PE) adverse events. While PAD seems to negatively affect these outcomes in some studies, this is not the case when only post-2000 studies are taken into consideration [1]. However, there is a paucity of studies regarding this matter, while a point in question is whether the indication affects ERCP (with or without PAD) outcomes. The aim of this retrospective study is to compare the cannulation rates and the ERCP-related adverse events between patients with and without PAD and evaluate the impact of the procedure's indication, whether benign or malignant.

Methods Review of the ERCP database of the Gastroenterology Department of Army Share Fund Hospital from 01/2014 until 06/2023 was performed. Only ERCP procedures with native papilla of Vater were included, and presence of PAD, cannulation rates, and PE adverse events [PE pancreatitis (PEP), PE cholangitis (PEC), bleeding, and perforation] were noted and compared between PAD and non-PAD patients. Moreover, PAD and non-PAD groups were further divided per indication into a benign (choledocholithiasis) and malignant (pancreatic cancer or extra-hepatic cholangiocarcinoma) subgroup, and the outcomes were also compared between them.

Results Overall, 1445 ERCPs were included in the study, with 1141 non-PAD and 304 PAD (21.04 %) cases, with a mean age of 71.44 and 77.20, respectively. Gender didn't differ significantly between the two groups. Regardless of indication, cannulation rates were 96.75 % and 93.09 % in non-PAD and PAD groups, respectively (p = 0.0039). As for PE complications, no significant differences were noted between the two groups (PEP: 4.12 % vs. 4.93 %, p = 0.5359; PEC: 2.98 % vs. 3.94 %, p = 0.3969; bleeding: 0.70 % vs. 1.31 %, p = 0.2972; and perforation: 0.52 % vs. 0.98 %, p = 0.3628, in non-PAD and PAD groups, respectively).

In ERCPs performed for benign indication, the comparison showed that PAD's presence significantly affects the biliary cannulation (98.13 % vs. 93.75 %, non-PAD and PAD groups, respectively; p = 0.0005), but no significant effect on PEP (p = 0.5073), PEC (p = 0.9333), bleeding (p = 0.6611), and perforation (p = 0.5006) was found.

Finally, in ERCPs performed for malignant indication, no statistically significant difference was noted in cannulation rates (94.55 % vs. 95 %, non-PAD and PAD groups, respectively; p = 0.9046), PEP (p = 0.4367), PEC (p = 0.1122), bleeding (P = 0.1426), and perforation (P = 0.7518).

Conclusions The presence of PAD, no matter the indication, significantly decreased cannulation rates without resulting in a significant difference in PE adverse events. This was also the case for ERCPs performed specifically for benign indications, while in ERCPs for malignant indications, PAD's presence didn't significantly affect the outcomes.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP121 Patient Position and ERCP Outcomes in Patients with Surgically Altered Foregut Anatomy

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Aims Patients with surgically altered gastrointestinal anatomy undergoing endoscopicretrograde cholangiopancreatography (ERCP) pose challenges due to anatomicaldistortions. Factors such as patient positioning, endoscopist experience, andchoice of endoscope may influence procedural success. It is unclear how thesefactors may impact the technical success of ERCP among patients with alteredanatomy. We primarily aimed to determine the impact of patient positioning (proneversus left lateral decubitus [LLD]) on technical success of ERCP among patientswith surgically altered anatomy. We also considered the impact of endoscopistexperience and endoscope type, alongside patient positioning.

Methods We conducted a retrospective single-centre study using data from 2010 to 2020that included patients with hepaticojejunostomy, Roux-en-Y anastomosis, Billroth1, or Billroth-2 anatomy. The primary outcome was technical success of the ERCP,which we comprehensively defined as of successful navigation to the papilla orsurgical anastomosis, selective cannulation and cholangiography, and therealization of the intended therapeutic goals. The secondary outcomes were thepresence of immediate bleeding and procedural time. Statistical analysis involveddescriptive statistics using mean and standard deviation (SD) and Fisher exacttest with relative risk (RR) and 95 % confidence interval (95 % CI). All statisticaltests were two-tailed and considered significant at P<0.05.

Results Among 205 patients, 179 were in the LLD group, and 26 were in the prone group.Patient demographics did not significantly differ between groups. The choice ofendoscope (P = 0.011) and endoscopist experience (P < 0.001) were the onlyvariables with significant differences. There were no significant differencesbetween the two groups in terms of procedural success (RR 1.1, 95 % CI: 0.8-1.5),immediate bleeding (RR 1.7, 95 % CI: 0.2-14.8), and procedural time (P = 0.808).Patients in the left lateral decubitus (LLD) position had a significantly higherlikelihood of technical success compared to those in the prone position (OR 2.59,95 % CI 1.09-6.14, p = 0.031). Additionally, non-Roux-en-Y reconstructions wereassociated with significantly higher technical success rates than Roux-en-Yreconstructions (OR 0.354, 95 % CI 0.182-0.690, p = 0.002).

Conclusions We found that patient positioning had a significant impact on technical success inERCP among patients with surgically altered anatomy. The choice of positioningshould be tailored optimizing outcomes in this complex patient subset.

Conflicts of interest Declaration : All the authors have no relevant financial disclosures or conflicts of interest to declare. CWT – Speaker: Medtronic and Boston Scientific, Consultant: Boston Scientific. GRM – Consultant for Olympus. Speaker: Pentax, Fuji and Medtronic. JDM – Speaker: Boston Scientific, Pendopharm, Vantage, Medtronic. Medical Advisory Board: Pendopharm, Boston Scientific, Janssen, Pentax, Fuji. SCG –Research grants and personal fees from AbbVie and Ferring Pharmaceuticals, personal fees from Takeda, Pfizer, Abbvie, Sanofi, and BioJAMP, education grants from Janssen and Abbvie, and has equity in Volo Healthcare.

MP122 Comparative Analysis of ERCP Success and Complications Among Age Groups

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Aims Endoscopic Retrograde Cholangiopancreatography (ERCP) is a vital procedure forhepatobiliary disease management. Though it boasts high overall success rates,the impact of patient age on outcomes remains uncertain, especially amongstelderly patients. With an aging population, it is crucial to determine the efficacyand safety of ERCP in different age groups. This study assesses ERCP success andcomplication rates across age groups. Our objective is to investigate whetherERCP remains a reliable and safe procedure for patients of all ages, particularly theelderly

Methods A database with retrospective data from consecutive patients undergoing ERCP ata Canadian tertiary care centre between 2011 and 2020 was utilized. Baselinepatient characteristics and indications for ERCP were collected. Outcomes includedprocedural success, complications, and procedure duration. Patients werecategorized into four age groups: < 40, 40-65, 65-80, and > 80, with a specificsub-analysis for patients < 80 and > 80.

Results This study included 6132 patients. Significant disparities were observed incomorbid conditions ($p < 0.0001$), ASA status ($p < 0.0001$), and the use ofanticoagulants or antiplatelet agents ($p < 0.0001$). The most common indications forERCP were gallstones (45.1 %), jaundice (19.2 %), and ductal lesions (12.8 %), withno significant variation among the age groups ($p = 0.5983$). There was a significantdifference in procedural success ($p = 0.0005$), with declining success in older agegroups (< 40 = 91.3 %, 40-65 = 87.4 %, 65-80 = 86.2 %, > 80 = 84.9 %), and thisdifference remained significant in the < 80 and > 80 sub-analysis ($p = 0.0133$). Whilemean procedure duration was longer in older age groups ($p < 0.0001$), incidence ofcomplications did not vary across all groups ($p = 0.1532$-0.7622) or patients < 80and > 80 ($p = 0.0769$-0.7128).

Conclusions ERCP maintains a high success rate and safety profile across all age groups;however, success rates decline and procedure times increase significantly in olderpatients.

Conflicts of interest Jeffrey D. Mosko – Speaker for Boston Scientific, Pendopharm, SCOPE rounds, Vantage, Medtronic. Medical Advisory Board for Pendopharm, Boston Scientific, Janssen, Pentax, Fuji. Grants and Research support from CAG. Christopher W. Teshima – Speaker for Medtronic and Boston Scientific, Consultant for Boston Scientific. Gary R. May – Consultant for Olympus. Speaker for Pentax, Fuji and Medtronic. SCG –Research grants and personal fees from AbbVie and Ferring Pharmaceuticals, personal fees from Takeda, Sanofi, and BioJAMP, education grants from Janssen, and has equity in Volo Healthcare.

MP123 Freehand precut- A savior for difficult ERCP- Retrospective analysis of 3000 ERCPs at tertiary care center in India

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Aims To analyze the efficacy of freehand precut for selective cannulation in difficult ERCP and its role in improving technical success rate, obviating need for EUS guided/other rendezvous techniques

Methods Retrospective analysis of 3000 patients undergoing ERCP from 2017 till date for varied etiologies. No. of patients required precut accessotomy were noted and technical success rate was measured

Results No. of patients analyzed- 3000

Selective biliary cannulation- 2452 (81.74 %)

Difficult cannulations requiring freehand precut accessotomy- 548 (18.26 %)

Technical success after precut achieving biliary access- 539 (98.36 %)

Failure of biliary cannulation even after precut- 09 (1.64 %)

Most common etiology in precut cases- stone disease 360 (65.70 %) followed by malignant lesions 118 (21.53 %), benign strictures 28 (5.11 %), post cholecystectomy biliary leak 28 (5.11 %), post traumatic biliary leak 10 (1.82 %), post hydatid surgery biliary leak 02 (0.36 %), post central hepatectomy biliary leak 02 (0.36 %).

Most common cause for failure in precut cases was extensive edema and deformed anatomy.

All failed cases were subsequently sent for surgery

Conclusions Free hand precut technique is a savior in difficult cannulation cases and it increases the success rate of selective biliary cannulation significantly avoiding the need for other costlier techniques such as EUS guided/ Rendezvous techniques. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP124 Factors associated with the severity of ERCP-related complications: large retrospective monocentric study

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Aims Prospective studies have identified a number of patient- and procedure-related risk factors for post-ERCP complications. Many of these complications are mild and self-limiting. The aim of this study is to identify the patients at risk for severe post-ERCP complications.

Methods All patients with post-ERCP complications within 30 days after ERCP between January 2016 and December 2022 were identified based on a prospectively collected ERCP registry. A 29-variable dataset was built based on prospectively collected data and retrospective analysis of the patient records. The severity of the complication was graded according to the AGREE-criteria. Severe complications were defined as AGREE > 2. Univariate and multivariate regression analysis was performed to identify factors associated with severe post-ERCP complications.

Results A total of 2810 ERCP procedures were performed, of which 223 (7.9 %) led to a post-ERCP complication. The median age within this subpopulation was 68 (IQR 54 to 76) and 136 patiënts (61 %) had major comorbidities (defined as ASA ≥ 3). The most commonly described complication was pancreatitis (82 cases, 37 %), followed by hemorrhage (70 cases, 31 %), infectious complications (55 cases, 25 %), perforation (15 cases, 7 %) and MOF (1 case, 0.4 %). 6 patients died < 30 days after the ERCP procedure; 6/223 (2.7 %) complications resulted in death. With regard to severity of the post-ERCP complication, 174/223 (78 %) cases were classified as “non-severe” [128 AGREE 1 (57 %); 46 AGREE 2 21 %)] and 49/223 (22 %) were classified as “severe” [31 AGREE 3 (14 %); 12 cases AGREE 4 , (5 %) and 6 cases AGREE 5 (3 %)].

Hemorrhage was the most reported severe complication (22/49 severe complications, 44.9 %), while a perforation had the most chance to result in a severe complication (10/15 perforation cases, 67 %).

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Univariate analysis identified 2 patient-related variables (anticoagulative therapy and age) and 2 procedure-related variables (difficulty of ERCP, defined by Shutz III or IV and incomplete biliary drainage) associated with severe post-ERCP complications. Multivariate analysis withheld anticoagulative therapy (OR 6.3, 95 % CI 1.4-28.3, P = 0,016) and a difficult ERCP defined by Schutz III (OR 11.5, 95 % CI 2.4-54.6, P = 0,002) or IV (OR 5.9, 95 % CI 1.4 to 23.5, P = 0,012) as independent risk factors for a severe post-ERCP complication.

Conclusions Patients under anticoagulant therapy and patients undergoing difficult ERCP procedures (Schutz III or IV) have the highest risk of a severe post-ERCP complication.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP125 The influence of periampullary diverticulum on the symptomatology of cholelithiasis and success of ercp cannulation

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Aims Periampulary diverticulum (PAD) is an incidental finding in many ERCP procedures (up to 30 %) and might influence the cannulation rate. Its incidence increases with age. PDA is associated with CBD stones and is considered a supplementary risk factor for bile duct obstruction, cholangitis and pancreatitis. However the impact of PAD on the clinical presentation and consequences in patient with cbd stones is unclear.

Methods We evaluated the impact of PAD over the clinical presentation of patients with cholelithiasis and over ERSP's cannulation and complication rate. All ERCPs procedures performed in our center between 01-01-2014 and 31-12-2022 were reviewed. Patients were divided into two groups: First one included patient with PAD, the second one cases without diverticulum. The following data were recorded : age, gender, comorbidities, imaging studies, liver function tests, number and dimensions of stones, CBD diameter, success and complications rate of ERCP and presence/size of PAD

Results The inclusion criteria were met 1251 patients,, 313 (25 %) in the first group and 938 (74,9 %) in the second group. Mean age was 62.5 + 22.5 y, the majority of them were woman 812 (64,9). Patients with PAD had more often cholangitis, compared of those without PAD (44,5 % vs 24,2 % P < 0,05) but the rate of biliary pancreatitis was similar on both groups (15,1 % vs 18,3). The success rate of cannulation was similar in both groups (90,5 % vs 93,8 %). The papilla was undetectable in 24 out of 313 patients (7,6 %) with PAD and in 7 out of 938 (0,74 %) without PAD. The post-ERCP complications (pancreatitis, infections, perforations) were considered significant in 61 (4,8 %) patient without difference between groups. No procedure related with death was recorded. There were no differences between two groups regarding gender , imaging findings, laboratory test , comorbidities, success rate, number and size of CBD stone or procedure related with complications and their severity

Conclusions PAD might represent a risk factor for cholangitis associated to cholelithisasi. However, the presence of PAD should not influence the results of imaging studies, liver function tests, rate of ERCP's success and complications

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP126 ERCP under conscious sedation: how far can we go?

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Aims Although endoscopic retrograde cholangiopancreatography (ERCP) is generally performed under deep sedation (DS), ERCP under conscious sedation (CS) without anesthesiologist support seems to be a valid alternative in less complex cases. In this study, we aimed to evaluate therapeutic success and safety of ERCP performed under conscious sedation.

Methods A monocentric retrospective study was conducted, enrolling patients who underwent ERCP in Padua University Hospital from January to August 2023. All the procedures selected were performed by the same endoscopist, and were scheduled under conscious or deep sedation according to expected technical difficulty and patient's frailty. DS was performed using propofol in combination with fentanyl, ketamine or midazolam. The combination of fentanyl and midazolam was used for CS.

Results 235 procedures, 69 under CS and 166 under DS, were performed in 176 patients. Patients were predominantly male (65.5 %), with a median age 65.6 years (IQR 56.6-75.1 years). More than 95 % of the procedures were performed in the swimmer's position. The most common indications were biliary stones (n = 88; 37.4 %), post-liver transplantation anastomotic strictures (n = 56; 23.8 %) and malignant biliary obstruction due to pancreatic neoplasia (n = 28; 11.9 %). Between the two groups, there were no differences in terms of comorbidities [mean Charlson comorbidity index for CS 4.54 vs. 4.01 for DS; p = 0.17], ASA classification [mean ASA score for CS 2.62 vs. 2.69 for DS; p = 0.34] and previous ERCP [performed in 46.4 % for CS vs. 53.0 % for DS; p = 0.35]. By contrast, procedure difficulty, according to Schutz classification, was significantly different between the two groups, with a lower grade of difficulty for procedures scheduled under conscious sedation [1.26 vs. 1.46; p = 0.014]. Regarding outcomes, no statistically significant differences in therapeutic success rate between the two groups [CS 95,6 % vs DS 89,8 %; p = 0,14] were demonstrated, even when matching the two groups according to Schutz degree of procedure complexity [Schutz grade 1: 98 % for CS vs 90 % for DS; p = 0.13]. In our cohort, performing ERCP under conscious sedation did not rise significantly post-ERCP pancreatitis risk [5.8 % patients developed it after an ERCP under CS vs. 5.4 % of those performing ERCP with DS; p = 0.91].

Conclusions In our experience, accurate patient selection, according to expected technical difficulty (Schutz classification), allows to perform ERCP under conscious sedation and in absence of anesthesiologist support, without any significant difference in therapeutic success rate or in adverse events. Future studies are warranted to evaluate the outcome of more technically difficult ERCP under non-anesthesiologist provided sedation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP127 ERCP in children. 15 years experience in a tertiary hospital in Spain

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Aims Indications for ERCP in children are relatively rare. The aim of our study is to describe the procedures performed in children at our institution.

Methods A retrospective study was performed, including all ERCP performed in children under 16 years in our endoscopic database between 2007 and 2023. Clinical data was obtained from clinical records.

Results 114 ERCP procedures were performed in 75 patients. 38 (50,6 %) were female and 37 (49,3 %) male. Mean number of procedures per patient were 2,5 (SD 2,27) Range 1-8.

Mean age was 10 years (range 1-16 years). All patients weighted more than 10 kilograms.

All procedures were done under anesthesia, in left lateral or prone position and performed by 4 experienced adult endoscopists using Olympus diagnostic or therapeutic duodenoscopes. Children were in care of pediatricians or pediatric surgeons and informed consent from their parents was obtained.

During the study period procedures were more often performed with 58 ERCPs in the last 5 years (2019-2023) vs 14 in the first 5 years of the series (2007-2011).

Indications included choledocholithiasis in 49 cases (43,36 %), recurrent pancreatitis in 19 (16,8 %), biliary strictures in 16 (14,2 %), choledochal cysts in 8 (7,08 %), bile leaks in 5(4,4 %), chronic pancreatitis in 3 (2,6 %), pancreatic leaks in 3 (2,65 %) and other indications in 10 (6,19 %).

12 cases presented altered anatomy due to prior surgical therapy of annular pancreas.

Technical success was achieved in 100 procedures (88,5 %). Failures were related to the innability to pass the duodenoscope due to patient size or failure to cannulate the papila, likely due to the close position of the tip of the scope to the papilla. .Therapeutic interventions were performed in 83 cases, with sphincterotomy in 47 patients (62,6 %), Biliary stents were placed in 25 procedures 21,9 % and pancreatic stents in 24 (21 %)

Adverse events occurred in 13 cases (11,4 %), 9 pancreatitis (7,9 %), 3 bleedings (2,6 %) and 1 cholecystitis (0,8 %). All were regarded as mild.

Conclusions ERCP in children is an effective and safe procedure.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP128 Artificial intelligence as a tool in the detection of the papillary ostium during ERCP

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DOI 10.1055/s-0044-1783138

Aims Endoscopic retrograde cholangiopancreaticography (ERCP) is the gold standard in the diagnosis as well as treatment of diseases of the pancreatobiliary tract. However, it is technically complex and has a relatively high complication rate. In particular, cannulation of the papillary ostium remains challenging. The aim of this study is to examine whether a deep-learning algorithm can be used to detect the major duodenal papilla and in particular the papillary ostium reliably and could therefore be a valuable tool for inexperienced endoscopists, particularly in training situation.

Methods We analyzed a total of 654 retrospectively collected images of 85 patients. Both the major duodenal papilla and the ostium were then segmented. Afterwards, a neural network was trained using a deep-learning algorithm. A 5-fold cross-validation was performed. Subsequently, we ran the algorithm on 5 prospectively collected videos of ERCPs.

Results A 5-fold cross-validation on the 654 labeled data resulted in an F1 value of 0.8007, a sensitivity of 0.8409 and a specificity of 0.9757 for the class papilla, and an F1 value of 0.5724, a sensitivity of 0.5456 and a specificity of 0.9966 for the class ostium. Regardless of the class, the average F1 value (class papilla and class ostium) was 0.6866, the sensitivity 0.6933 and the specificity 0.9861. In 100 % of cases the AI-detected localization of the papillary ostium in the prospectively collected videos corresponded to the localization of the cannulation performed by the endoscopist.

Conclusions In the present study, the neural network was able to identify the major duodenal papilla with a high sensitivity and high specificity. In detecting the papillary ostium, the sensitivity was notably lower. However, when used on videos, the AI was able to identify the location of the subsequent cannulation with 100 % accuracy. In the future, the neural network will be trained with more data. Thus, a suitable tool for ERCP could be established, especially in the training situation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP129 Emergency ERCP during the weekend and on holidays: indications, procedures and outcomes

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DOI 10.1055/s-0044-1783139

Aims Endoscopic retrograde cholangiopancreatography (ERCP) outcomes may vary with the endoscopists' experience with a risk of life-threatening adverse events. Little information is known about the outcome of emergency ERCP performed during the weekend or on holidays.

Methods From 2019 onwards, all patients who underwent emergency ERCP during the weekend or holidays were included. Patient and procedure characteristics were registered: ERCP indication, procedure and outcome, time between hospitalisation and emergency ERPC, length of stay and in-hospital mortality.

Results A total of 31 emergency ERCP procedures were scheduled during the weekend in 30 patients with a mean age of 60 ± 4 years (range 2-92) and an equal male/female ratio. This represents 0.3-1.3 % of the total annual number of ERCP procedures. All procedures were considered urgent based on clinical presentation (fever 39 %, sepsis 36 % with shock 23 %) or on radiological findings. In 24 ERCP procedures indications were (suspicion of) obstructive common bile duct stone (70 %), postoperative biliary leak (13 %), malignant biliary obstruction with cholangitis (13 %), traumatic pancreatic rupture (4 %). In the 7 remaining procedures, indications required an alternative technique: endoscopic ultrasound (EUS)-guided galbladder or pancreatic pseudocyst drainage (10 %), treatment of post-sphincterotomy bleeding (10 %) and treatment of gastric perforation after EUS-guided drainage (3 %). Procedures were performed within 12h after admittance (29 %), within 24h (58 %), 48h (10 %) or 72h (3 %) either in a dedicated ERCP room (90 %), in the operation room (7 %) or in the intensive care unit (3 %). All 24 conventional ERCP procedures were technically successful, with sphincterotomy and stone extraction in 50 % of the patients, stent placement in 7 patients (29 %, 4 plastic stents and 3 metal stents) and 1 balloon dilatation of a biliary stricture (4 %). Although post-ERCP pancreatitis and cholangitis were not present in this patient cohort, 5 ERCP procedures were complicated by per- or post-procedural biliary or sphincterotomy bleeding (21 %) requiring intervention with local balloon compression, fully-covered metal stent placement, submucosal epinephrine injection, bipolar coagulation and blood transfusion. Bleeding was not related to concomitant use of antiaggregant or anticoagulant medication. Mean total hospital stay was 22 ± 6 days (range 2-100) and one patient died within 15 days after the ERCP procedure due to progression of the underlying hematological malignancy. No mortality was related to the ERCP procedure.

Conclusions Emergency ERCP during the weekend represent a small fraction of total annual ERCP numbers, leading to prolonged hospital stay. The vast majority of indications encompasses (septic) cholangitis due to biliary stones. Technical success is high with a good safety profile, even when performed in other rooms than the dedicated ERCP room. However, the risk of per- and post-procedural bleeding (biliary or post-sphincterotomy) is higher (21 %) than expected, irrespective of the concomitant use of antiaggregant/anticoagulant medication.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Novel approaches and novel techniques in the colon 1

26/04/2024, 11:30 – 12:30 **Science Arena: Stage 1**

MP130 Comparison of clinical efficacy between endoscopic retrograde appendiceal irrigation and traditional endoscopic retrograde appendicitis therapy: a multicenter propensity score matching analysis

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Aims The purpose of this study is to compare the clinical efficacy of endoscopic retrograde appendiceal irrigation(ERAI) and traditional endoscopic retrograde appendicitis therapy(ERAT) in patients with uncomplicated acute appendicitis.

Methods Endoscopic retrograde appendiceal irrigation(ERAI) refers to a simplified procedure on the basis of traditional endoscopic retrograde appendicitis therapy(ERAT), without the need for appendicography and general anesthesia. ERAI refers to the direct insertion of the appendix and repeated irrigation of the appendix with physiological saline and metronidazole combined with intraoperative observation of the patient's improvement in abdominal pain for disease diagnosis and treatment. Compare the application of ERAI and ERAT in uncomplicated acute appendicitis patients from three hospitals in China from May 2017 to November 2022. Among 725 hospitalized patients(aged 18-60 years), 486 received ERAI and 239 received ERAT. To adjust for baseline differences and selection bias, treatment outcomes and complications were compared after propensity score matching. All patients had phone followed-up.

Results After a 1:1 matching score, 169 well matched patients in each group were evaluated. The success rate of intubation and procedure time in the ERAI group were lower than ERAT group. There was no statistically significant difference in the rate of fecal stones flushing out and postoperative hospitalization time between two groups. The hospitalization cost of the ERAI group was 6768.9RMB, significantly lower than the ERAT treatment group of 12491.5RMB. There was no statistically significant difference in short-term and long-term complications between the two groups. The appendicitis recurrence rate in the ERAI group was 12.5 %, higher than the 8.1 % in the ERAT group.

Conclusions Compared with traditional ERAT, ERAI is technically feasible for patients with uncomplicated acute appendicitis and is more convenient to promote to a certain extent. ERAI can significantly reduce procedure time and hospitalization costs, but there are problems such as lower success rate of appendiceal intubation and higher recurrence rate of appendicitis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP131 A Novel Retractable Robotic Device for Colorectal Endoscopic Submucosal Dissection

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DOI 10.1055/s-0044-1783141

Aims Appropriate tissue tension and clear visibility of the dissection area using traction are essential for effective and safe endoscopic submucosal dissection (ESD). In this study, we developed a retractable robot-assisted traction device and evaluated its performance in colorectal ESD.

Methods An experienced endoscopist performed ESD 18 times on an ex vivo porcine colon using the robot and 18 times using the conventional method. The outcome measures were procedure time, dissection speed, procedure-related adverse events, and blind dissection rate.

Results Thirty-six colonic lesions were resected from ex vivo porcine colon samples. The total procedure time was significantly shorter in robot-assisted ESD (RESD) than in conventional ESD (CESD) (20.1 ± 4.1 vs. 34.3 ± 8.3; $P<0.05$). The submucosal dissection speed was significantly faster in the RESD group than in the CESD group (36.8 ± 9.2 vs. 18.1 ± 4.7; $P<0.05$). The blind dissection rate was also significantly lower in the RESD group (12.8 ± 3.4 % vs. 35.1 ± 3.9 %; $P<0.05$). In an in vivo porcine feasibility study, the robotic device was attached to a colonoscope and successfully inserted into the proximal colon without damaging the colonic wall, and ESD was successfully performed.

Conclusions The dissection speed and safety profile improved significantly with the retractable robot-assisted ESD. Thus, our robotic device has the potential to provide simple, effective, and safe multidirectional traction during colonic ESD.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP132 Saline-immersion therapeutic endoscopy for endoscopic submucosal dissection of fibrosed lesion: results from a single centre retrospective study

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Aims Fibrosis is a crucial factor to consider when performing endoscopic submucosal dissection (ESD) in the colorectum. The degree of fibrosis has been associated with longer procedure time, failed en-bloc resection, lower R0 (~ 80 % for F1 fibrosis; ~ 30-50 % for F2 fibrosis), lower curative rates and higher risk of adverse events [1–6]. Fibrosis poses a challenge even to the most experienced endoscopists [1]. In this context, saline-immersion therapeutic endoscopy (SITE) could offer a safer and more effective profile, joining its other advantages of improved visibility, intrinsic magnification, buoyancy (traction effect) and heat sink effect [7]. We describe our centre's experience on the efficacy and safety of SITE pocket creation method ESD (SITE-PCM-ESD) for fibrosed lesions.

Methods We retrospectively reviewed procedures since 2020 from our centre's prospectively compiled ESD database. Lesions with underlying fibrosis F1 and F2 were included in the analysis [1]. Baseline characteristics, as well as histological and endoscopic parameters were recorded.

Results Thirty-eight procedures were included in our study. Lesion were characterised as LST-G-H in 14/38 (36.8 %), LST-G-M in 8/38 (21.0 %), LST-NG-FE in 7/38 (18.4 %), LST-NG-PD in 1/38 (2.6 %), semi-pedunculated in 2/38 (5.3 %) and sessile in 6/38 (15.8 %). Mean maximum diameter was 38.7 mm (SD ± 21.5), mean minimum diameter was 28.1 mm (SD ± 15.2). Twenty-six lesions were in the left colon (68.4 %), whereas 12 (31.6 %) in the right colon. Of these, 13/38 (34.2 %) had previous resections (EMR or TEM), 4/38 (10.5 %) stood on a tattooed area, 1/38 % (2.6 %) was in the context of Ulcerative Colitis, 1/38 (2.6 %) in radiation proctitis and 1/38 (2.6 %) on a rectosigmoid anastomosis. Fibrosis was graded F1 in 6/38 (15.8 %) and F2 in 32/38 (84.2 %).

Thirty-two (84.2 %) lesions were resected with SITE-PCM-ESD, whereas 4 (10.5 %) were resected with piecemeal EMR. Two procedures (5.2 %) were abandoned due to clear endoscopic features of deep submucosal invasion (neovascularisation and deep muscle infiltration). SITE-PCM-ESD treated lesions resulted in an en-bloc-resection rate of 93.9 % (31/32) and R0 rate of 81.8 % (27/32); three lesions (9.3 %) with R1 on the vertical margin revealed to be early cancers, whereas 2/32 (6.2 %) had Rx resection margins in the context of low-grade dysplasia with negative endoscopic follow up.

From a safety profile, in the SITE-PCM-ESD group were observed respectively 2/32 (6.2 %) microperforations and 1/32 (3.1 %) perforation, all managed endoscopically and requiring only hospital admission for observation.

Conclusions SITE-ESD-PCM appears to be a feasible and safe strategy when dealing with fibrosed colorectal lesions.

Conflicts of interest AR: no disclosuresAM: Personal payments/honoraria/fees: Olympus, GI supply, Boston Scientific, FujifilmLL: no disclosuresNL: no disclosuresEJD: educational grants in support of conference organization, and honoraria, from Fujifilm, Pentax, and Olympus, and honoraria from Ambu.

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MP133 VACStent in the colorectum: first results of the treatment of anastomotic leakages and avoidance of protective stoma in colorectal surgery

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Aims Clinical applications of the VACStent in the upper GI tract show that reliable closure of an intestinal wall leak or anastomotic insufficiency with simultaneous drainage of a wound cavity by intraluminal endoscopic vacuum therapy (EVT) is very well possible. The suction of the sponge cylinder on the intestinal wall reliably immobilizes the VACStent and leaves the intestinal passage open. This principle should now be transferred to the lower GI tract and initial experience gained.

Methods Within the prospective VACStent registry study, patients with colorectal resections were treated with the VACStent in a german tertiary center. The current patient pool includes patients with synchronously established ileostoma, patients whose insufficiency was treated exclusively with the VACStent without installation of a stoma, as well as patients with a prophylactically VACStent implantation immediately after anastomosis to avoid protective stoma.

Results To date 11 patients have been treated: in 2 patients with synchronously established ileostoma, the insufficiency was first treated with an endocavitary sponge and then the residual cavity was treated with the VACStent. In 6 patients, the insufficiency was treated exclusively with the VACStent, without installation of a stoma. In 3 high-risk patients for avoidance of protective stoma, the VACStent was implanted prophylactically intraoperative, removed after 7 days and demonstrated good anastomotic healing. No major complication was observed in all cases. Healing of the suture leakages occurred in all 8 patients after a median treatment time of 13.5 days with 2.5 VACStents. Secondary stoma creation or surgical revision had not become necessary in any case. Anastomotic stenosis has also not been observed to date.

Conclusions These first experiences show that the VACStent is also stably anchored in the colorectum due to the suction effect on the intestinal wall and can thus safely cover and heal perforations and anastomosis via the EVT effect. The open stool passage thus makes it possible to heal an insufficiency even without surgical creation of a stoma. This endoluminal anastomosis treatment and stoma prevention has a great clinical potential and needs to be further validated and verified by studies.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP134 Effect of case selection on ESD outcomes in suspected T1 CRC

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Aims Colorectal endsocopic submucosal dissection (ESD) is advocated to be performed on polyps which harbor a risk of submucosal invasive cancer (SMIC) either based on size, location and morphological features, or the presence of an invasive pit- or vascular pattern at enhanced imaging. It is however unknown how the selection of cases for ESD influences technical success and vertical resection margin (VM) R0 rates for pT1 colorectal cancer (CRC) specifically. In this study, the influence of case selection on technical success and the VM R0 rate of ESD for suspected T1 CRCs was evaluated in a prospective cohort of ESDs.

Methods In total, 936 colorectal ESDs were included in 3 Dutch ESD referral centers between 2011-2022 based on a suspicion of a T1 CRC in treatment naïve lesion. Pre-resection optical reassessment in the referral center was used to recategorize the polyps into suspected deep SMIC, suspected superficial SMIC, and suspected covert SMIC. Technical success and VM R0 resection rates were evaluated in the whole intention-to-treat group, and the individual subgroups. The subgroups were compared to two European ESD cohorts from Portugal (n = 225) and Belgium (n = 174) on the proportion of pT1 CRCs and success rates. Poisson regression analyses was used to calculate the risk ratio for a VM R1 resection adjusted for location, size, and presence of a depression.

Results A total of 936 cases were selected for the intention-to-treat cohort (59.6 % male, mean age 67 yrs (± 9.3), 10 % ASA III/IV, median polyp size of 30 mm (IQR 20-50), 54.8 % located in the rectum. Technical success, VM R0 rate and proportion of pT1 CRC was 82 % (95 % CI 76-88 %), 82 % (95 % CI 76-88 %), and 276/936 (30 %). After reassessment, 139 were re-categorized as suspected deep SMIC, 307 as superficial SMIC, and 351 as covert SMIC, and 139 unclassified due to missing data on optical features. The VM R0 rate for pT1Sm1 cases was persistently high in all three subgroups: 22/24 (92 %) vs 42/47 (89 %) vs 10/11 (91 %) respectively. However, the VM R0 rate for pT1Sm2-3 was lower in the deep SMIC group than in the suspected superficial and suspected covert SMIC group (34/61 (55.7 %) versus 46/60 (78 %)). pT1Sm2-3 invasion was an independent risk factor for VM R1 resection (adjusted RR 4.18; 95 % CI 2.8-6.2). Compared to the Belgian and Portuguese cohort, the proportion of pT1 and pT2 CRCs was much higher in de Dutch cohort (11 %, 16 % and 30 %), and especially by the inclusion of pT1Sm2-3 cases (2 %, 8 % and 16 %). This influenced the outcomes especially in the suspected deep SMIC group.

Conclusions ESD has a high VM R0 rate, even for pT1Sm2-Sm3 cases within the suspected superficial and suspected covert SMIC subgroup. But in the presence of features of deep submucosal invasion, other techniques such as EID, eFTR, TAMIS or CELS should be preferred.

Conflicts of interest PentaxConsultant ERBE Research grant Medtronic Boston Scientific

MP135 Transcecal Endoscopic Appendectomy for Management of Complex Appendiceal Polyps

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DOI 10.1055/s-0044-1783145

Aims Endoscopic resection of the appendiceal orifice polyps extending into the appendiceal lumen is challenging given the inability to determine polyp's lateral margins. Endoscopic full thickness resection (EFTR) is an alternative technique for managing these polyps, but it is limited in polyps larger than 2 cm, or polyps extending to the base of the cecum or inside the appendiceal

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lumen. In addition, EFTR may lead to appendicitis. In this case series, we describe a novel technique for the removal of complex appendiceal orifice polyps via transcecal endoscopic appendectomy (TEA).

Methods This case series includes patients who underwent TEA performed by a single endoscopist in the US for polyps larger than 2 cm that extended deeply into the appendiceal lumen or obstructed the appendiceal lumen. All cases were done under general anesthesia in endoscopy unit. The technique entailed performing a circumferential incision around the lateral margin of the polyp in the base of the cecum. Once the polyp was dissected by endoscopic submucosal dissection (ESD) technique from the base of the cecum, the incision was extended into the serosa of the cecal wall with continuous dissection of the appendix from the mesoappendix. Traction was then applied to pull the tip of the appendix intra-luminally within the cecum. The appendix was then dissected from the remining mesoappendix and cecal base. The defect was then closed using hemostatic clips. A 14-gauge catheter was routinely inserted above the umbilicus to prevent tension pneumo-peritoneum. Technical success was defined as achieving complete removal of the appendix and the polyp in an en bloc fashion.

Results In total, six patients with the mean age of 68.7 ± 9.7 years old were included (50 % female). The average polyp size and the resected appendix were 2.15 ± 1.27 cm and 8.18 ± 4.7 cm, respectively. Technical success was achieved in 100 % of the patients. The average procedure length was 10.3.3 ± 34.7 minutes. Completed closure of the defect was made via clips in all cases (average 5.8 ± 1.5 clips). The en bloc resection rate, R0 resection rate and curative resection rates were 100 %. Patients were observed post procedurally for an average of 2.7 ± 1.4 days (range 1-5 days). Post-procedural mild abdominal discomfort (n = 4) and leukocytosis (n = 3) were managed conservatively. One patient developed loculated fluid collection nine days post procedure, which resolved on its own.

Conclusions This is the first reported experience of transcecal endoscopic appendectomy for management of complex appendiceal orifice polyps in the West. This novel technique is safe and is associated with minimal risk profile in expert hands. Further prospective studies are needed to standardize the technique.

Conflicts of interest Tara Keihanian is a consultant for Lumendi, ConMed Medical, Neptune Medical and Boston Scientific. Mohamed O. Othman serves as consultant for AbbVie, Apollo, Boston Scientific Corporation, ConMed, Creo Medical, Lumendi, and Olympus and has received grant/research support from AbbVie, Boston Scientific Corporation, ConMed, and Lucid Diagnostics.

MP136 EUS-guided colo-entero-anastomosis with Lumen Apposing Metal Stent (LAMS) as a rescue treatment for malignant bowel occlusions: a multicentre study

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DOI 10.1055/s-0044-1783146

Aims Malignant bowel obstruction (MBO) is a relevant problem for patients with advanced malignancy. Surgery is the first-choice treatment, however many patients are deemed inoperable. Endoscopic ultrasound (EUS) guided colo-entero-anastomosis with lumen apposing metal stents (LAMS) could represent a new effective palliative treatment option. We aimed to assess the technical success and the safety of EUS guided colo-entero-anastomosis, symptoms relief, time of re-feeding, hospital stay and overall survival.

Methods All consecutive patients undergoing EUS guided colo-entero-anastomosis for MBO from November 2021 to September 2023 were retrospectively enrolled at four tertiary referral European centres. All cases were discussed in a multidisciplinary meeting and patients declared unfit for surgery and colonic stent placement or spontaneously refused surgery. Demographic and clinical data, the type and size of LAMS used for the procedures, the clinical outcome and adverse events were recorded. Data were expressed as median [range] and comparisons were made by using the $\chi 2$ test, Student t-test, or Mann–Whitney u-test, as appropriate.

Results Twelve patients were enrolled (58.3 % female, median age 72.5 [42-85]). In 75 % of cases the primary tumour was colonic adenocarcinoma, 91.7 % of patients had a Stage IV disease and 50 % were in chemotherapy treatment. In 83.3 % of the procedures the LAMS used was the Hot AXIOS from Boston Scientific and in 16.7 % the Hot SPAXUS from Taewoong. Technical success was achieved in all procedures (100 %). No LAMS misdeployment or other immediate post procedure adverse events were observed. Delayed post-procedural complications were recorded in 3 (25 %) patients, however direct correlation with the procedure could not be ascertained. Clinical success was reached in 10 (83.3 %) patients and the median time of oral diet resumption was 1 [1-2] day. The median post-procedure hospital stay was 9 [1-20] days and the overall median survival was 47.5 [2-270] days.

Conclusions EUS guided colo-entero-anastomosis is a feasible and safe technique, and can be considered as a valid alternative to standard approaches in highly selected patients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP137V Closure of rectal Exposed Endoscopic Full-Thickness Resection (E-EFTR) defect using a novel technique: Clip & Line & Cinch

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DOI 10.1055/s-0044-1783147

Abstract Text In this video, we present a novel suturing technique used to close a large rectal wall defect following an exposed endoscopic full-thickness resection of a non-granular 15 mm lateral spreading tumor (LST) in the lower rectum, with suspicion of deep submucosal invasion. The wall defect was closed by grasping the distal eschar's margin with a clip tied with a suture thread, tensioned, and attached alternately to the margins of the defect with additional clips. Finally, the suture was secured with an Overstitch Suture Cinch (Apollo Endosurgery, Austin, Texas). The remaining defect was closed using clips. After one month of follow-up, no adverse events were reported, and the eschar healed completely.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/688251b1-2dee-41f0-b07f-8e4024a6e567/Uploads/13821_001076_2.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP138V Use of new Flexlifter traction system to facilitate endoscopic colonic dissection

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DOI 10.1055/s-0044-1783148

Abstract Text Endoscopic submucosal dissection is a technique that allows neoplastic lesions of the digestive tract to be resected en bloc, however, in many cases, achieving easy access to the submucosa or maintaining is difficult, especially when the lesions associate a certain degree of fibrosis in the submucosa. Multiple different traction systems have been described, but The search

for the perfect traction system continues. Recently several commercial companies are developing articulated systems that allows the traction to be repositioned and move the system within the colon. The Flexlifter system consists of an atraumatic forceps mounted on a cap that is placed on the tip of the endoscope and allows traction to be adapted to the need. Once the Flap is held, the clamp remains fixed and allows horizontal movements with the knife to dissect the submucosa.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/6532b516-aa97-48fc-a825-f2ea39a0b3f1/Uploads/13821_Flelifter_esge%202024.mov

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP139 Endoscopic full-thickness resection (eFTR) for the treatment of neuroendocrine tumors of the rectum: The new standard procedure?

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Aims Rectal neuroendocrine tumors (rNET) grow almost always in the submucosal layer and conventional resection methods, such as forceps or snare resection with or without prior lifting, are associated with incomplete resection rates (R1) of up to 9 %. Modified-EMR and ESD have already shown better results in retrospective studies. However, there are still limited data about eFTR for rNETs.

Methods We conducted this single-center, retrospective analysis to assess the effectiveness and safety of eFTR in the treatment of rNETs. The duration, en bloc resection rate, complication rate and recurrence rate of all eFTR procedures for rNETs performed at Marburg University Hospital from November 2016 to November 2023 were analyzed. The full-thickness resection device (FTRD) was used for all eFTR procedures.

Results From 11/2016 to 11/2023, a total of 155 patients were treated with eFTR in our center, 14 of whom with an indication of rNET. In 4 of the 14 cases, eFTR was performed after previous forceps or snare resection, here without histological evidence of the pre-diagnosed NET. In the remaining 10 of the 14 cases, all lesions were completely, en bloc resected (100 %). The median size of the lesion was 5 mm (2-12). The median procedural time was 20.5 minutes (14-33). Apart from mild self-limited postoperative bleeding (n = 2, 14.3 %), no serious complications occurred. After a median follow-up period of 13 months (2-51), endoscopic follow-up revealed no evidence of local recurrence (0 %).

Conclusions eFTR is a safe, quick, and effective procedure for resection of rNETs and, in our view, should replace conventional snare mucosectomy. However, studies that prospectively compare the different resection techniques are necessary to determine the optimal endoscopic management.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Nurses role in daily practice

26/04/2024, 14:00 – 15:00 **Science Arena: Stage 1**

MP140 Methodology of process optimization – A systematic consideration of selected benchmarking endoscopies

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Aims The research goal should reflect opportunities for improvement of the colonoscopy process. For this purpose, four endoscopies and their colonoscopy processes were compared in order to derive optimization measures.

Methods Using the operation and procedure code 1,650, four endoscopies with a high colonoscopy volume were analyzed using a data analysis system. Due to the competitive advantage, the analysis was narrowed down to two federal states. Based on qualitative research, a standardized observation was conducted on three days by means of a time sample using a survey instrument. In addition, individual expert interviews were conducted on site with all four ward managers using a structured questionnaire.

Results In addition to the patient appointment 45 minutes before the start of the examination, the use of the team-time-out was also found to increase efficiency. Furthermore, the use of EDP for the nursing sub-steps is advantageous. A separate nurse is crucial for the preparation step. In view of the high dynamics, non-patient activities that define surface disinfection between examinations and endoscope reprocessing should be outsourced. Endoscope reprocessing machine chambers must be adapted to the endoscope volume. Furthermore, double waiting times after the recovery area sub-step should be parallelized. After implementing all the optimization measures analyzed, the nursing process time could be reduced from 94 minutes to 49 minutes. Ultimately, all four endoscopies showed a low proportion of digitization measures. As a result of the measured staff retention time, time recording is considered logical. Similarly, work performance in the full-time model represents an increase in efficiency. However, this is not feasible for all care staff. Nevertheless, excellent hygiene standards must continue to be met for the outsourced non-patient activities.

Conclusions The heterogeneity of colonoscopy processes due to local restrictions and their multifactorial aspects is worth mentioning. Furthermore, the EDP system must be implemented and the proportion of full-time nursing staff must be adapted to the respective endoscopic dynamics. In addition, the identified optimization measures increase patient and employee satisfaction as well as the quality of the nursing sub-steps. Finally, the nursing staff are required to identify their processes, measure them over time and introduce optimization measures.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP141 Expertise teams on endoscopy

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Aims Our environment is changing, the demand for care is increasing and new treatment methods are being developed. This requires specialization and teams that are resilient. Learning culture, autonomy, appreciation and balance are among other factors of resilience.

The objective is:

Expert teams in the endoscopy department contribute to the satisfaction of doctors with the support of endoscopy nurses, and contribute to the job satisfaction and challenges of endoscopy nurses.

Methods Qualitative research

1. -o- measurement Skills and enjoyment
2. Implementation expertise teams upper GI, lowerGI, longoscopy, recovery and allround team.
3. post measurement Skills and enjoyment after implementation

What did we actually measure?

Doctors' satisfaction with the endoscopy nurse: support offered, preparing the right materials, handling highly complex materials, communication.

Endoscopy nurse satisfaction: pleasure, satisfaction, challenge, attention to training and development, knowledge exchange.

And we have 100 nursing actions, such as: from cannulation in the papilla to anticipating bleeding with clips to removing the body to changing a G-Tube.

The question we asked is whether you are competent, yes or no, to assist or perform an action. [1–2]

Results 13 % endoscopy nurses have more fun and satisfaction at work

25 % endoscopy nurses experience more challenges and opportunities for development

27 % Doctors experience an improvement in nursing support

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50 % improvement in communication between doctors and endoscopy nurses And a general increase in the competence of endoscopy nurses in the 100 procedures

Conclusions We are growing in expertise, the nurses feel more competent. This makes a good contribution to a healthy and challenging working environment. Communication with the doctors has improved, we learn from each other and the doctors are better assisted by the endoscopy nurses. The endoscopy expertise teams have played a major role in this an contribute to our resilient team.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP142 Motivation of nurses/technicians and expectations in today's work process

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DOI 10.1055/s-0044-1783152

Aims The objective of this paper is to educate nurses on the importance of motivation, positive energy, and positive communication. Furthermore, the aim of this paper is to achieve positive energy in nursing through the realization of new ideas aimed at strengthening the nursing profession, recognizing talents, empowering a positive work atmosphere, increasing retention in the workplace, reducing stress levels, and strengthening rewards for one's work and effort, as well as improving employee morale. In today's time, the task in nursing that concerns all of us is to recognize good work, promote positive communication and teamwork. Ultimately, even small things can yield great results.

Methods How to be motivated in life, how to meet all the demands that come before us?

Motivation is a state or process within an individual that stimulates, sustains, and directs behavior towards a specific goal. This state, or process, is something that is assumed and cannot be directly observed or measured. Usually, we infer about motivation based on an individual's behavior and understanding their needs and desires. Given the fact that behavior is influenced by numerous other factors, we cannot conclude with certainty about an individual's motivation solely by observing their behavior.

Results A positive work environment is crucial for the morale and productivity of employees, and therefore for the success of the company. A positive work environment is one characterized by mutual respect, trust, and communication. It is a workplace where employees feel comfortable expressing their ideas and opinions, and where they feel valued and appreciated. Employees who feel good at work and are appreciated by the employer will be more engaged in their work and motivated to give their best.

Conclusions Healthcare is a process that is learned, built upon, perfected, applied, and demands a modern approach to each patient, with the focus of the nurse's work and care. The importance of open communication, communication skills, and teamwork are facts that contribute to the healthcare process, with our patient at the center of attention. It is time for all of us to change together, learn, communicate, and motivate. It is time to strengthen education, communication, the connection between practical training and knowledge in our profession, and to strengthen empathy and the need of patients for belonging and sensitivity.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP143 Effect of different head height lateral decubitus positions on painless gastroscopy in obese patients for intraoperative gastroesophageal reflux

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DOI 10.1055/s-0044-1783153

Aims Objective To investigate the effect of different head high lateral decubitus positions on gastroesophageal reflux in patients undergoing painless gastroscopy.

Methods A total of 120 patients with the history of acid reflux underwent elective painless gastroscopy, with no gender limit, BMI 28.0-32.0 kg/m2, ASA grade I or II.. They were divided into 3 groups (n = 40) using the random number table method: head height 15. Left decubitus group (H15. group), head height 30. Left decubitus group (H30. group) and the control group in the left decubitus position (H0 group). Before gastroscopy, H15. group with 15 heads elevated during the perioperative period.; H30. The group had 30 heads elevated during the perioperative period. In the observation group, the patients were placed in the left decubitus position (no head elevation) during the perioperative period. After the operation, he was transferred to the Anesthesia Recovery Unit (PACU). The number of coughs, reflux and reflux pH, oxygen saturation, heart rate and blood pressure were recorded before surgery (T0), admission to the examination room (T1), anesthesia induction (T2), 5 min after the start of surgery (T3), at the end of examination (T4) and during the anesthesia recovery period (T5).

Results with H0. Group comparison, H15. The incidence of intraoperative regurgitation, tachycardia, hypoxemia and comfort during PACU were significantly higher in the group ($P < 0.05$). with H30. Group comparison, H15. There was no significant difference in the indexes between the groups ($P > 0.05$).

Conclusions The left lateral decubitus position is effective in reducing the incidence of intraoperative reflux during painless gastroscopy in obese patients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP144 Patients Safety: Labeling Syringes in an Endoscopy Clinic

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DOI 10.1055/s-0044-1783154

Aims In endoscopy clinics, syringes are widely used for injectable medications that are necessary to proper patient care, i.e., to sedate and anesthetize. When drugs are aspirated directly from vials or ampoules into a syringe, the information about the drug name and dose is lost. A mislabeled syringe may have dire consequences for those who are injected with the wrong substance or dose. Mislabeled syringes have been identified as a main cause of errors in drug administration, and guidelines have been published detailing recommendations for syringe labeling. In 2020 the International Organization for Standardization (ISO) have upgraded the requirements for user-applied syringe labels, defining the colors (Pantone system), the design and the performance of the labels. The nursing staff of the Endoscopy Clinic of AST AN – Senigallia (Central Italy) has discussed the issue.

Methods In the second half of 2022 the nursing staff met several times to study, analyse and discuss the preparation and management of drugs aspirated in syringes. The SWOT Analysis and the Fishbone Diagram were used.

Results Drugs dosage: gastroenterologists and nurses have standardized the dosage of Midazolam (5 mg brought to 10 ml with saline, final concentration of 0.5 mg/ml), Meperidine (50 mg brought to 5 ml with saline, final concentration of 10 mg/ml) and Adrenaline (1 ml of 1:10,000 or 1:20,000 solution) Labeling: a market survey found a nearby company providing labels that meet the requirements indicated by the ISO 26825:2020 standards and the needs of the service. Specific labels were purchased for meperidine, midazolam, adrenaline and atropine. For other drugs, rarely used and prepared extempo-

raneously as needed (antispasmodics, antiemetics, painkillers, etc.) it was decided to purchase white labels to be filled in (drug name, concentration mg/ml, date of preparation, dilution (normal saline, colloid). To avoid the risk of intravenous administration, it has been decided to keep syringes containing adrenaline, with appropriate labeling, only on the overbed trolley used for polypectomies and not on the shelf of the main carriage where syringes containing meperidine and midazolam are present [1–4].

Conclusions The introduction of the new label system and the modification of nursing activities has made it possible to eliminate the time required to write and cut out labels, to have a quick and certain identification of the reconstituted drug, to reduce the risk of errors and to ensure the asepsis of the preparations.

The new operating method has been shared and implemented by the entire team and is currently fully operational, with positive effects on nursing activities and on the management of the risk of medication errors.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP145 Functional Endoscopic Luminal Imaging Probe in Peroral Esophageal Myotomy

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Aims Achalasia occurs when the lower esophageal sphincter doesn't function properly, making it difficult for food to pass into the stomach. It is diagnosed using various methods such as gastroscopy, impedance manometry, and barium swallow studies.

The preferred treatment is the peroral endoscopic myotomy (POEM) technique, and the functional endoscopic luminal imaging probe (endoFLIP) is a valuable tool used during POEM as we have experienced.

Methods A 72-year-old man is experiencing chronic difficulties swallowing both solids and liquids. He also reports symptoms of gastroesophageal reflux, chest pain, and noticeable weight loss. Finally diagnosed with type II achalasia. The treatment consists of the combination of endoscopic peroral esophageal myotomy with measurementsusing the functional endoscopic luminal imaging probe before and after the procedure.

Results The outcome of the procedure was positive for the patient. We have passed on the following questionnaires to verify.

Eckardt Scale: A tool that assesses the severity of achalasia by considering dysphagia, regurgitation, retrosternal pain, and weight loss. Scores range from 0-1 (stage 0), 2-3 (stage I), 4-6 (stage II), and above 6 (stage III). Our patient had a score of 9 before the procedure and a post-procedure score of 0.

MUST Scale: A universal tool for screening malnutrition, assessing body mass index, weight loss, and the impact of acute illness. Scores range from 0 to 2 or higher. Our patient had a score of 2 before the procedure and a score of 0 after the procedure.

Conclusions The endoFLIP probe is an innovative tool that provides precise, real-time measurements of the esophagus during the procedure. This enables customized myotomies to ensure adequate distensibility, thereby minimizing the risk of postoperative reflux and reducing the likelihood of symptom recurrence.

The use of endoFLIP during POEM helps avoid the need for repeat procedures due to the accuracy and precision of the myotomy [1–4].

While there is ongoing discussion about its application and cost, in the clinical case we presented, it´s use has proven decisive.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP146 Different roles of endoscopy nurse in endoscopic submucosal dissection (ESD) by a novel bipolar type of ESD knife compared to a standard knife

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Aims Our aim was to compare roles and workload of endoscopy nurse in endoscopic submucosal dissection procedures performed with a standard needle-type knife (DualKnife, Olympus) and a novel bipolar knife (Speedboat, Creo Medical).

Methods Four endoscopy nurses with experience in assisting at least 4 ESD procedures with new bipolar knife and at least 10 ESD procedures with standard needle-type knife were interviewed by a questionnaire. It included description of specific roles during both types of procedures, and semi-quantitative assessment of workload perception regarding those roles and procedure alltogether. Subjective workload perception was graded with grades 1 to 5 (1 being minimal workload and 5 being maximal workload), and standard-type and novel-type procedures were compared for each procedure part/role.

Results Preparing the patient, endoscope and accessory was graded the same for each procedure type by all nurses – 3.25 average. Accessory exchange (needle, ESD knife, coagulation forceps) workload was graded 2.75 average in standard-type procedure, and 1.0 in novel-type procedures (as there are virtually no accessory exchanges with bipolar-type knife).

Manipulation of the knife was graded 2.0 for standard-type knife and 4.25 for novel-type knife, as novel bipolar knife requires constant involvement of the nurse with knife rotation according to plane of dissection. Lifting of submucosa was estimated to be easier with standard-type knife (2.25 vs. 3.75), and vessel precoagulation was easier with novel-type knife (2.25 vs. 2.75). Bleeding management required less workload with novel-type knife (2.25 vs. 3.0), as it doesn't require introducing coagulation forceps, grasping the vessel with it and electrosurgical unit settings change. Overall grade of workload perception was similar, 4.25 for. standard-type vs. 4.5 for novel-type knife, as ESD procedures are usually lenghty and require high level of focus during whole procedure.

Conclusions ESD procedures are difficult both for the endoscopist and endoscopy nurse, especially for larger lesions that require a long period of focus. New bipolar knife removes the need for accessory exchange and change of electrosurgical unit settings during larger vessel management, but requires more focus and work from the assistant during dissection due to the need for rotation of the knife. Submucosal injection is also somewhat more complicated due to

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knife rotation and opening of the needle. Overall difficulty and workload perception by endoscopy nurse seem to be similar for both ESD methods.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP147 ENDOSCOPIC FULL-THICKNESS RESECTION: Role ofthe expert Endoscopy Nurse, a single center experience

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DOI 10.1055/s-0044-1783157

Aims The FTRD is a preassembled device. The expert Endoscopy Nurse assembles the over-the endoscope device and acts as a second operator together with the endoscopist. The success of the technique depends on both operators. In our Endoscopy Unit, these procedures are performed with the assistance of the anesthesiologist in order to reduce patients' discomfort therefore increase compliance, thus the role of endoscopy nurse is also to monitor the patient and assist the anesthesiologist.

Methods During the period November 2021 – September 2023, we performed 46 procedures in our Endoscopy Unit.

Results In all cases, the resection was en bloc and histologically complete (R0). In 2 patients, the procedure was not feasible due to bowel's tortuosity and rigidity which made it impossible to reach the lesion with the device (94.1 %, 44/46). The histological examination of the specimens revealed low grade dysplasia (36,3 %, 16/44), high grade dysplasia (47,8 %, 21/44) and adenocarcinoma foci (15,9 %, 7/44), No patient had major complications, such as colonic perforation. Early bleeding was observed in two patient which was treated successfully with endoscopic hemostasis. In one patient, at the 6-month follow-up, a residual lesion on a previous full-thickness resection site, was observed and was treated with a second EFTR with FTRD. Histologically, the lesion was an intramucosal adenocarcinoma with complete resection.

Conclusions Endoscopic full-thickness resection (EFTR) is a promising endoscopic resection technique for minimally invasive resection with minimal patient's discomfort and therefore can represent an alternative to surgery thus reducing hospitalizations' costs. The success of the procedure depends on the device's management before and during the procedure, fundamental is physician-experienced Endoscopy Nurse collaboration.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP148 Endoscopic full thickness resection using "Full thickness resection device"- review of literature and retrospective analysis of our data

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Aims The aim of this study is to present a case series of our, single centre, experience with this resection technique and compare it to published data.

Methods Endoscopic full thickness resection (EFTR) is relatively new endoscopic treatment method for treating gastrointestinal lesions. Although some attempts have been done before using, so called, open approach, method really came to light and entered daily clinical practice since the introduction of over-the-scope "Full thickness resection device" (FTRD) by OVESCO which enables closure of the defect and resection of the lesion in on integrated procedure.

The studies have shown this to be a rather safe and successful method of endoscopic resection.

In comparison to the standard endoscopic resection techniques (EMR and ESD) EFTR with FTRD has comparable technical success rate, but significantly higher rate of R0 resection. Safety profile regarding peri and post-procedural bleeding is almost the same, while perforation rate is comparable to EMR and bit lower than with ESD.

Results During the 18 months period, from May 2022 to November 2023 we conducted 19 EFTR procedures using FTRD. Median patient age was 65 years (IQR 56 – 74); 58 % were males and 42 % females. Overall technical success rate was 84.2 % (16/19). In three unsuccessful cases lesion could not be retracted into the cap. Most of the cases were secondary interventions after EMR (12/19) either because of recurrent adenoma or because of pathohistological verification of malignant focus within the resected lesion. There were five primary interventions because of suspicion of early carcinoma. Out of those one was verified as adenoma with high grade dysplasia, one as intramucosal carcinoma and three were carcinomas with deep submucosal invasion. One procedure was done as hybrid procedure (EMR plus EFTR of the non-lifting central part of the lesion). The final procedure was indicated for adenoma of the appendiceal orifice. Mean size of resected specimen was 20 x 15 mm. R0 resection was achieved in 15 out of 16 technically successful procedures (94 %). None of the malignant lesions required subsequent oncologic surgery. The only case in which R0 resection was not achieved was the adenoma of the appendiceal orifice. That patient underwent subsequent surgery for the resection of remaining adenoma. We had only one case of serious adverse event (5,3 %) with late perforation, eight days after the procedure. Patient was referred for surgery and was successfully operated [1–6].

Conclusions We can conclude that our results are comparable with those published from big national registries and meta-analysis. EFTR using FTRD for colonic lesions is a good alternative for lesions that cannot be treated with standard endoscopic resection techniques, especially for T1 colorectal carcinoma.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP149 Nurses role in performing cholangioscopy and laser lithotripsy

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DOI 10.1055/s-0044-1783159

Aims Define cholangioscopy and nurses role during procedure.

Cholangioscopy is a procedure for diagnosing and treating problems within the biliary tract. Cholangioscopy is used to identify and resolve: obstruction of the biliary ducts and pancreatic ducts such as large gallstones that are difficult to remove, pancreatic duct stones spot a cancer in the ducts and collect tissue samples (biopsies)

It is important to note that all the materials and the cholangioscope itself that we use at are ***single use only***.

Methods Data from May 2019. to October 2020. Clinical Hospital Dubrava (Zagreb, Croatia)

Results Nurses tasks for cholangioscopy are: look for expiration date (do not use beyond the date), look for packing damage, examine the catheter for his

functions, examine the chateter cable and cable conector, turn on the controller, attach cable conector to digtal controller, push the conector to the point when you hear click then verify the image on the screen. In 2019. Clinical Hospital Dubrava was first hospital in Croatia and our part of Europe were it was done laser lithotripsy using cholangioscopy.

Conclusions From May 2019. to October 2020. we have done 16 cholagioscopy. Patiens have been previously average three time's on ERCP. In over 80 % cases it was tried mehanical litotripsy before cholangioscopy. It is important to note that there were no periprocedural complications like perforations or bleeding. Patients were discharged on average two days after the procedure. Cholangioscopy laser lithotripsy is a safe method that should be used in completely eliminate the need for surgical procedures to extract stones from the bile ducts.

Case report 35 years old male patient has been on ERCP. After cannulation and sphincterotomy there we found two stones. First attemp to extract them was with extraction basket 20 mm of diameter. But due size of stones and the small diameter of the distal choledocus it was immposible to extract them. Then we proceed with mechanical lithotripsy. However , handle cord broke approximately 15cm from the basket and the basket with stone in it remained impacted and the cord end was flapping freely in the lumen of the duodenum. The next day we attemp ERCP with cholangiocsopy and laser lithotripsy. We successfully chrush stones insade of basket. The basket was extracted with biopsy forceps and all fragments of stones were successfully extract. There were no post-procedural complications. [1–4]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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Novel approaches and novel techniques in the colon 2

26/04/2024, 14:00 – 15:00 **Science Arena: Stage 2**

MP150 ESD vs EFTR in small pT1 lesions' resection, a cost-effectiveness analysis

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Aims Endoscopic submucosal dissection (ESD) and Endoscopic Full-thickness Resection (EFTR) represent treatments of choice in the endoscopic resection of small gastrointestinal (GI) lesions with superficial submucosal invasion. It is often challenging to assess the best curative option in daily practice, since ESD is thought to be more technical demanding, and requires a longer learning curve.

Methods We conducted a monocentric retrospective study, analyzing all GI pT1 lesions < 35 mm resected by either ESD or EFTR in our Unit from 2016 and 2023. All procedures were performed in a Day Hospital setting. As primary endpoints we assessed en bloc resection, R0 resection (clear deep margins) and curative resection (no further need for surgery) rate. As secondary endpoints we analyzed mean procedural time, cost and adverse events that occurred within or after both procedures. Chi-square test, Fisher Test and T-test were performed for categorical variables.

Results 40 ESD and 37 EFTR were enrolled. En bloc resection was achieved in, respectively, 87.5 % (35/40) and 97 % (36/37), without reaching statistical difference (RR 0.9, p = 0.74), likewise R0 resection (30/40, 75 % vs 36/37, 97 %, RR 0.77, p = 0.44) and curative resection (22/40, 55 % vs 25/37, 67 %, RR 0.82, p = 0.57). Adverse events analysis showed no statistical difference between the two cohorts (4/40, 12 % vs 3/37, 8 %, RR 1.5, p = 0.79). Mean procedural time appeared significantly lower in EFTR, (69.85 ± 31.94 min vs 48 ± 16.9 min, p = 0.0002), whilst mean procedural cost per hospitalization day was lower in ESD than EFTR (2746 € ± 1003 vs 3458 ± 746 €).

Conclusions ESD and EFTR turned out to be equally successful in terms of resection outcomes in pT1 small lesions. Nevertheless, ESD appeared to be more cost-effective in our study, and therefore should be confirmed as gold standard in daily practice. However, EFTR could allow easier and faster en bloc resection in most challenging procedures, representing a valid alternative in less experienced settings.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP151 Endoscopic retrograde appendicitis therapy is effective and safe for children: a single center retrospective study in China

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DOI 10.1055/s-0044-1783161

Aims To evaluate the clinical outcomes of Endoscopic retrograde appendicitis therapy (ERAT) in pediatric appendicitis.

Methods This retrospective study enrolled children who underwent ERAT in our hospital between January 2019 and August 2022. Demographics of patients, success rate of ERAT management and the length of postoperative hospital stay were collected and analyzed, and adverse events and recurrence were followed up.

Results 73 patients were enrolled. Appendiceal intubation was successful in 72 of 73 patients (98.63 %). 72.22 % of patients had appendiceal fecal stones or food residue, and the success rate of stone removal was 94.23 %. In total, technique success rate was 94.52 % The median procedure time was 22 min (IQR 15-36.5), and median postoperative hospital stay was 2 days (IQR 1-4). During the 1-year follow-up, 82.81 % patients did not experience appendicitis recurrence [1–23].

Conclusions ERAT is an effective and safe method to treat pediatric appendicitis, especially for appendicitis with appendiceal fecal stones.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP152 Impact of inappropriate indication to colonoscopy on waste production and potential benefit of an intervention. A multicenter prospective study

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Aims Colonoscopy leads to production of an important amount of carbon dioxide (CO_2) quantified in 6.71 Kg CO_2e (direct emissions) and as high as 28 kg CO_2e (direct and indirect emissions). Aim of the present study was to quantify the impact of inappropriate indication to colonoscopy on waste production and the potential benefit of an intervention.

Methods This study is derived from a multicenter prospective observational study involving 9 institutions in Emilia-Romagna, which is an Italian region with more than 4 million inhabitants, including consecutive adult patients undergoing colonoscopy for clinical indication outside CRC screening organized programs with adequate bowel cleansing and complete examinations. In this study, a predictive model for CRC based on clinical patient-related variables and indication according to Italian RAO criteria was derived and validated. In the present study, we applied the model to the derivation cohort and performed projections on the CO_2e based on the number of inappropriate or low-risk colonoscopies which would be saved according to appropriateness criteria and our predictive model, respectively.

Results Overall, 2,546 patients (mean age 63 + 14 years, female sex 49.8 %) were included. CRC was found in 74 (2.9 %) cases. Inappropriate colonoscopies were 1,262 (49.6 %) according to ASGE criteria and 1,007 (39.5 %) according to EPAGE-II criteria. The predictive model based on patient age, performance of a colonoscopy in past 10 years, and indication to colonoscopy according to RAO criteria defined 1,370 (53.8 %) patients as low-risk (i.e. CRC risk < 1 %). CRC was found in 24 (1.9 %) and 24 (2.4 %) inappropriate colonoscopies according to ASGE and EPAGE-II criteria, respectively, and in 8 (0.6 %) low-risk patients according to the predictive model. Therefore, if we simulate that patients at low risk of CRC would not undergo colonoscopy in our cohort, we would spare 1,176 procedures leading to reduction of CO2e equal to 7,891 Kg CO_2e (direct footprint) and 32,928 Kg CO_2e (direct and indirect footprint). Sparing inappropriate colonoscopies according to ASGE and EPAGE-II criteria would lead to reduction of CO2e equal to 8,468 Kg and 6,757 Kg CO_2e (direct footprint) and 35,336 Kg and 28,196 Kg CO_2e (direct and indirect footprint), respectively.

Conclusions Inappropriate colonoscopies do have a relevant impact on CO_2 emissions. ASGE and EPAGE-II appropriateness criteria might help in reduce CO_2 emissions at a price of missing a relevant amount of patients with CRCs. A clinical predictive model based on clinical patient-related variables and indication according to Italian RAO criteria could substantially reduce CO_2e with a negligible CRC miss rate. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP153V Underwater endoscopic unroofing and enucleation as treatment for a large ulcerated colonic lipoma causing intussusception

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DOI 10.1055/s-0044-1783163

Abstract Text We present the case of a 59 year old male who underwent a colonoscopy for screening of CRC. A large, ulcerated subepithelial lesion was observed in the transverse colon. A CT scan showed a 70 mm lipoma that caused intussusception. We performed the unroofing of the lesion with a 20 mm polypectomy snare via an underwater technique, and then proceeded to the enucleation of the remaining lipomatous tissue with the same snare. Endoscopic unroofing is known to be a safe procedure for the treatment of subepithelial lipomas, but it is often insufficient for its complete resolution. Two step methods via a subsequent EMR, or the loop and go technique have been described. We found this technique to be a safe, one-step approach for the treatment of these lesions, which also allowed to obtain a histological sample to confirm that the lesion was benign and no other treatment was needed [1–5].

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/903985b1-53c8-4c58-a163-2e817cf0d0e8/Uploads/13821_Unroofing2.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP154 Lack of Effectiveness of Computer Aided Detection for Colorectal Neoplasia: A Systematic Review and Meta-analysis of Non-Randomized Studies

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DOI 10.1055/s-0044-1783164

Aims Benefits of computer-aided detection (CADe) in detecting colorectal neoplasia were shown in many randomized trials where endoscopists' behavior was strictly controlled. However, the effect of CADe on endoscopists' performance in less-controlled setting is unclear. This systematic review and meta-analyses were aimed at clarifying benefits and harms of using CADe in real-world colonoscopy.

Methods We searched MEDLINE, EMBASE, Cochrane and Google Scholar from inception to August 20, 2023. We included non-randomized studies that compared the effectiveness between CADe-assisted and standard colonoscopy. Two investigators independently extracted study data and quality. Pairwise meta-analysis was performed utilizing Risk ratio (RR) for dichotomous variables and mean difference (MD) for continuous variables with a 95 % confidence interval (95 % CI).

Results Eight studies were included, comprising 9,782 patients (4569 with CADe and 5213 without CADe). Regarding benefits, there was neither a difference in adenoma detection rate (44 % vs 38 %; RR 1.11 [95 % CI 0.97 – 1.28]) nor mean adenoma per colonoscopy (0.93 vs 0.79; MD 0.14 [-0.04 – 0.32]) between the CADe-assisted and standard colonoscopy, respectively. Regarding harms, there was no difference in the mean non-neoplastic lesions per colonoscopy (8 studies included for analysis, 0.52 vs 0.47; MD 0.14 [95 % CI -0.07 – 0.34]) and withdrawal time (6 studies included for analysis, 14.3 vs 13.4 minutes; MD 0.8 minutes [95 % CI -0.18 – 1.90]). There was a substantial heterogeneity, and all outcomes were graded with a very low certainty of evidence.

Conclusions CADe in colonoscopies neither improves the detection of colorectal neoplasia nor increases burden of colonoscopy in real-world, non-randomized studies, questioning the generalizability of the results of randomized trials.

Conflicts of interest CH/AR: Medtronic (equipment loan); Fujifilm (consulting); Olympus (consulting; NEC (equipment loan); Satisfy (equipment loan); Odin (equipment loan); AIM (equipment loan) YM: Olympus (Consultancy, lecture fees, and equipment loan), Cybernet System (Loyalty) MM: Olympus (Consultancy, lecture fees, and equipment loan), Cybernet System (Loyalty) DR: Olympus Corporation, Boston Scientific, Braintree Laboratories, Norgine, Medtronic, Acacia Pharmaceuticals: Consultancy; Research Support: Olympus Corporation, Medivators, Erbe USA Inc, Braintree Laboratories PS: Consultant for Bausch, Boston Scientific Corporation, CDx Labs, Covidien LP, Exact Sciences, Fujifilm Medical Systems USA, Inc, Lucid, Lumendi, Medtronic, Olympus, Phathom, Takeda, and Samsung Bioepis; Grant Support from Cosmo Pharmaceuticals, Covidien, Docbot, ERBE USA Inc, Fujifilm Holdings America Corporation, Ironwood Pharmaceuticals Inc, Medtronic USA, Inc, and Olympus All other authors: None

MP155 Endoscopic submucosal dissection for superficial neoplastic lesions involving ileocecal valve: a Western multicenter study

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Aims The clinical outcomes of endoscopic submucosal dissection (ESD) for lesions involving ileocecal valve (ICV) remain unclear in Western setting. This study aimed to evaluate the efficacy and safety of ESD in the treatment of lesions involving ICV compared to other right-side colon lesions.

Methods This was a multicenter, retrospective, comparative study conducted at 6 Italian referral centers. Lesions involving ICV treated by ESD/h-ESD between January 2018 to August 2023 were included in the study as study group (ICV group). Right-side colon lesions non involving ICV treated by ESD/h-ESD during the same study period were included as control group (non-ICV group). The primary outcomes included rate of en-bloc resection, R0 resection and adverse events (AEs). The secondary outcomes were procedure time and rate of surgery.

Results A total of 174 right-side colon ESD in 166 patients were included (41 in the ICV group vs 133 in the non-ICV group). The median lesion size was 30 mm in both groups (p = 0.19). There were no significant differences in en-bloc resection rate (90 % and 91 %, respectively; $p = 0.58$), R0 resection rate (85 % and 83 %; $p = 0.46$), procedure time (79 ± 43 min and 71 ± 55 min; $p = 0.18$), delayed bleeding rate (2.4 % and 3 %; $p = 0.67$), and delayed perforation rate (4.9 % and 0.8 %; p = 0.14) between ICV and non-ICV groups. Surgery for non-curative resection was needed in 2.4 % in the ICV group and 9.8 % in the non-ICV group, with no significant difference between the two groups (p = 0.11). No surgery for complication was recorded.

Conclusions ESD is a safe and effective treatment of right-side neoplasia involving the ileocecal valve when performed by expert endoscopists in Western referral centers.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP156 Results of endoscopic treatment of hemorroids

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DOI 10.1055/s-0044-1783166

Aims The ongoing discourse on the optimal treatment for hemorrhoids persists, with varying options demonstrating differential effectiveness and associated levels of discomfort. Within the scope of this investigation, a comparative analysis is undertaken between sclerosis and elastic ligation concerning their efficacy and potential complications.

Methods This retrospective descriptive study encompasses 397 patients grappling with symptomatic internal hemorrhoids (IH). Among them, 150 underwent sclerotherapy, while 247 opted for ligation, spanning a 17-year timeframe from 2005 to 2022. The primary objective is to scrutinize the outcomes of sclerotherapy injections and hemorrhoid ligation, evaluating post-procedure discomfort and pain, as well as short and long-term efficacy and complication rates.

Results The average age of the patients was 49.6 years, with a male-to-female sex ratio of 2.85. Bleeding, observed in 97 % of cases, often manifested with anemia (43.5 %). Sclerosis primarily targeted IH grade 2 (80 %) and grade 3 (12 %), whereas ligation was predominantly indicated for symptomatic IH grade 3 (67 %) and grade 2 (34.8 %). Minor complications, such as bleeding, occurred in 6.6 % (10 cases) after sclerosis and 15 % (37 cases) after ligation. Pain was reported by 67.2 % of patients treated with ligation and 4 % of those subjected to sclerosis. Success rates were 73.3 % after an average of 2.2 sessions of sclerosis [1-4] and 79 % after a mean of 3 sessions of ligation. The recurrence rate stood at 26.6 % after sclerosis and 22 % after ligation.

Conclusions In conclusion, hemorrhoid ligation emerges as a more efficacious intervention compared to sclerotherapy, albeit potentially accompanied by a higher degree of pain and discomfort for the patient than the latter.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP157 Endoscopic-histologic correlation of benign colorectal lesions with non-lifting sign resected by modified underwater endoscopic mucosal resection

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DOI 10.1055/s-0044-1783167

Aims Modified underwater endoscopic mucosal resection with pseudopolyp formation (CAP-UEMR) may be useful in lesions with a non-lifting sign. The aim of our study was to evaluate fibrosis in benign lesions with non-lifting sign resected by CAP-UEMR.

Methods Retrospective analysis of endoscopic-histological correlation in benign lesions with non-lifting signs resected by CAP-UEMR between August 2020 and December 2021.

Results Fourteen non-lifting sign lesions were resected, all with prior manipulation. En bloc resection rate was 42.9 %. There was a recurrence in a lesion involving the appendiceal orifice, treated endoscopically. A single intraprocedural bleeding episode occurred, with no late complications observed.
Fifty percent of the lesions were serrated (4 with dysplasia).
Histological analysis confirmed submucosal fibrosis in the samples specifically reviewed (performed in 7 of the 14 lesions), without desmoplasia or infiltration, with the absence of fibrosis in the lamina propria.

Conclusions Benign colorectal lesions with a non-lifting sign exhibit submucosal fibrosis, demonstrating histological correlation, and can be successfully treated endoscopically by the CAP-UEMR technique.

Conflicts of interest Hugo Uchima is consultant of Lumendi, collaborates with ERBE Spain, Olympus Iberia, Izasa, and has received congress inscription from Casen-Recordati.

MP158V Use of decompression drainage tubes for enhancement of colorectal endoscopic submucosal dissection

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Abstract Text We have started using drainage tubes in the form of a Foley catheter or a flatus/naso-gastric tube connected with a low-pressure suction to facilitate colorectal saline immersion technique (SITE) pocket creation method ESD [1–5]. Low pressure suction decreased the need for through-the-scope suction of fluids and bubbles allowing a more efficient dissection, with increased speed. We also noted improved patient comfort and decreased need for sedation. Managed, minimal distention of the bowel also facilitates endoscopic dissection with improved access to the submucosal layer.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/90ba2d1b-5df7-4fce-b336-aafd1d7cc2e6/Uploads/13821_ESD_catheter_v2.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP159 Outcomes Of Colorectal Endoscopic Submucosal Dissection According To The Size Of Colorectal Neoplasm: A HASID Multicenter Study

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DOI 10.1055/s-0044-1783169

Aims Endoscopic submucosal dissection (ESD) is a valuable technique for treating early colorectal neoplasms. However, there is insufficient data available concerning the treatment outcomes in relation to the size of colorectal neoplasms.

Methods The data on ESD for colorectal epithelial neoplasms between January 2015 and December 2020 were retrospectively collected from five tertiary medical centers. Colorectal neoplasms were stratified into groups based on their longitudinal diameter: < 20 mm as Group 1, 20–39 mm as Group 2, 40–59 mm as Group 3, and 60 mm or more as Group 4.

Results Of the 1,446 patients, there were 132 patients in Group 1 (< 20 mm), 1,022 patients in Group 2 (20–39 mm), 249 patients in Group 3 (40–59 mm), and 43 patients in Group 4 (≥ 60 mm). There was a trend of increasing age from Group 1 to Group 4, and a corresponding increase in the Charlson Comorbidity Index was observed. The procedure time also exhibited a gradually increasing trend from Group 1 to Group 4. Similarly, the length of hospital stay tended to increase as the patients moved from Group 1 to Group 4. The predictive model using restricted cubic spline curves revealed that as the size of lesion exceeded 30 mm, complete resection steadily decreased, and major complications notably increased. [1–12]

Conclusions As the size of colorectal neoplasms increases, the rate of complete resection decreases and the rate of complications increases.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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Pushing boundaries in small bowel exploration

26/04/2024, 15:30 – 16:30 **Science Arena: Stage 1**

MP160 False negative rate of OMOM's artificial intelligence model for small bowel capsule endoscopy (Smart Scan) in a real-world setting

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Aims To evaluate the false negative rate of OMOM's artificial intelligence model (SmartScan) for small bowel capsule endoscopy (SBCE) with real world data.

Methods Consecutive patients undergoing SBCE with OMOM's capsule endoscopy (CE) system in our center were retrospectively included. We performed a per-lesion analysis, in which SmartScan findings were reviewed for marked/reported findings by the CE reader, according to the CEST classification. The main outcomes were the false negative rate and predictors of missed findings by the artificial intelligence model.

Results 211 CE with SmartScan were performed between July 2022 and October 2023. Patients were, on average 57 years old and 52.1 % were male. Main indications were iron-deficiency anemia (45.0 %), suspected Crohn's disease (26.8 %) and established Crohn's disease (16.5 %). The exam completeness rate was 96 %. We identified 1126 unique findings: 56.9 % were excavated lesions (erosions, aphtha, ulcers), 11 % were angiectasia and redspots, 9 % were white plaques/lymphangiectasia, 6.4 % were protruding lesions (venous structures, nodules, polyps, mass/tumor).
The overall false negative rate was 11.9 %. The most commonly missed lesions were erosions (25.3 %, n = 41) and aphtha (18.4 %, n = 54), followed by angiectasia (11.1 %, n = 10) and redspots (8.6 %, n = 3). No blood, tumors/mass lesions were missed. Small bowel transit time, location and Brotz score did not predict missing lesions. Concerning missed angiectasia most were seen in only in 1-2 frames imediatly following entrance in the duodenum where CE paces at a greater speed. Size did not influence detection. The missing rate of inflamatory lesions is explained due to the detection of a large number of findings near the missed case. Futher studies should evalute if missed lesions change the final inflammatory score. Other missed lesions were of clinical unimportance (P0 Saurin Classification).

Conclusions The fear of routine implementation of artificial inteligence systems is frequently based on false negative rates. While still far from ideal, Smartscan proves to be an excelent tool for pre-reading and in the urgent setting. Aditional caution is needed to review sections where CE travels at a higher speed.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Endoscopy 2024; 56: S1–S503

MP161V Ischemic Polipectomy for Small Bowel Lesions: A Novel and Challenging Technique

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DOI 10.1055/s-0044-1783171

Abstract Text Ischemic polypectomy (IP) is a technique to reduce post-polypectomy bleeding. Two clinical cases.**1**: Patient presented with gastrointestinal bleeding. Capsule endoscopy (CE) identified an ulcerated 20 mm ileal polyp. Retrograde SBE located the lesion, and an endoloop-assisted endoscopic resection was performed. Follow-up showed a fibrin ulcer. **2**: Patient with prior laparotomies was admitted for a polypectomy of a 30 mm ileum hamartoma. SBE was difficult, resulting in angulation of the endoscope. ENL was deployed but it couldn't be released. An external disassembly of the ENL was performed facilitating the retrieval of the SBE. An IT-Knife was used to section the ENL sheath. C: Deploy ENL in enteroscope can be a challenge in hard-to-reach small bowel areas.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/aabca252-3ffd-4dc4-b467-670a5264e9ae/Uploads/13821_endoloop-assisted_endoscopic%20resection.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP162 Pan-enteric mucosal inflammation in Crohn's disease patients treated with vedolizumab assessed by capsule endoscopy– interim results of a prospective observational study

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Aims Mucosal healing (MH) is a paramount treatment goal in Crohn's disease (CD). The vast majority of data pertains to MH in the colon and terminal ileum. Data regarding pan-enteric MH (P-MH) among patients with active CD who were treated with vedolizumab (VDZ) are lacking. We aimed to evaluate the efficacy of VDZ for achieving P-MH using pan-enteric capsule endoscopy (CE).

Methods This was a prospective open-label observational study. Patients with CD who have started on VDZ, were included. Patients underwent small-bowel (SB) patency-assessment using patency capsule (PC) and were followed by CE (PillCam Crohn's, Medtronic, USA) before /within 40 days of treatment onset and after 14 and 52 weeks. In patients with exclusive SB involvement, colonic preparation was not performed and colon was not assessed in subsequent CE. Accordingly, Lewis score (LS) and Pan-enteric Pillcam score (PS) were calculated, when available. The primary outcome was P-MH defined as LS < 135 and LS < 135 & PS < 4 for CE confined to the SB/SB &colon, respectively. The main secondary outcomes were SB-MH (LS < 135) and colonic-MH (colonic PS < 4).

Results 57 patients were recruited, 41 patients were enrolled (median age: 28 [23-45] years, male-44 %) and 16 patients were excluded (6- retained PC, 1- technical reason, 2 -did not start VDZ, 7-withdrew consent). Six patients (1- retained PC, 1- multiple strictures, 1- lost to follow-up [F/U], 3- clinical flare) and eight patients (4- discontinued VDZ, 2- capsule adverse events, 1- lost to F/U, 1- clinical flare) were dropped-out before week 14 and week 52, respectively. P-MH was observed in 7/39 (18 %) patients at week 14, and in 7/30 (23 %) patients at week 52 (two patients and 11 patients have not yet reached 14/52-week, respectively). At week 52, the rates of SB-MH and colonic-MH were 27 % and 46 %, respectively, and it was consistent with the significant improvement at week 14 in both LS (900 [225-900] vs. 450 [0-900], p < 0.001) and PS (12 [2-18] vs. 6 [0-14], p = 0.001) compared to baseline, and with the LS (0 [0-300]) and PS (2 [2-6]), at week 52. No cases of retained capsule were observed during F/U.

Conclusions VDZ induces MH in both the SB and the colon among patients with CD, and this effect may persist up to 52 weeks of treatment.

Conflicts of interest Bella Ungar received consultation fees from Neopharm,Takeda, Janssen, and AbbVie. Rami Eliakim received consultant and speaker fees from Janssen, AbbVie, Takeda, and Medtronic. Uri Kopylov received speaker fees from AbbVie, Janssen, and Takeda; research support from Takeda and Janssen; and consulting fees from Takeda and CTS. Shomron Ben-Horin has received advisory board and/or consulting fees from AbbVie, Takeda, Janssen, Celltrion, Pfizer, GSK, Ferring, Novartis, Roche, Gilead, Neopharm, Predicta Med, Galmed, Medial Earlysign, BMS, and Eli Lilly; holds stocks/options in Predicta Med, Evinature, and Galmed; and received research support from AbbVie, Takeda, Janssen, Celltrion, Pfizer, and Galmed.

MP163 Comparing capsule endoscopy findings with radiological reports of bowel wall thickening

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Aims Bowel wall thickening, as reported by CT and MRI, can represent a diagnostic challenge. Capsule endoscopy (CE), has been reported as having a high diagnostic sensitivity for small bowel diseases. This study aims to report the findings of CE performed to assess radiologically reported bowel wall thickening. A secondary aim was to identify factors associated with a positive CE finding.

Methods This retrospective study conducted in an Irish tertiary referral centre compared the results of CT and MRI imaging which reported bowel wall thickening with the subsequent CE reports. Details of interest included length of time between investigations, location of abnormality on radiological imaging, abnormalities reported on CE, patient symptoms and inflammatory markers. A finding on CE was considered clinically significant if reported as such by the reader/researcher and in the same location or location adjacent to the abnormality on imaging.CE performed between 2015 and 2023 were included.

Results 90 patients were included. Median length of time between initial radiological investigation and CE was 6 months. The mean age was 49. 52 female patients were included. 88 small bowel capsules and 2 were colon capsules were included.The initial abnormality was identified in 60.7 % (54/89) of cases by CT imaging, 23.6 % (21/89) by MRI and 15.7 % (14/89) by both modalities. With regards the location of the abnormality of on imaging, 4.4 % (4/90) of cases reported duodenal thickening, 51.1 % (46/90) jejunal thickening, 28.9 % ileal or terminal ileal thickening, 13.4 % (12/90) small bowel thickening of other sites, and 2.2 % (2/90) identified colonic thickening. CE identified pathology associated with the imaging finding in 33.3 % (30/90) of cases. Mucosal abnormalities including erosions, ulceration, aphthous ulcers, enteritis, strictures and enteropathy were noted.The most common presenting symptom was abdominal pain, in 52.63 % (40/76) of cases. 65 % (56/86) of referrals were from outside institutions.There were no significant associations found with positive capsule findings. Factors analysed included logistical regression for length of time from imaging to capsule (p 0.74) and faecal calprotectin (p 0.59), Fischer's exact test for type of imaging used (p 0.56) and presence of IBD (p 0.16), student t- test for level of CRP (p 0.20) and white cell count (p 0.19). Location of abnormality was not associated with a positive capsule finding as assessed by Fischer's exact test (p 0.06)

Conclusions CT and MRI findings of bowel wall thickening which resulted in referral for capsule endoscopy, did not commonly identify a clinically significant finding. No factor analysed was significantly associated with a positive capsule finding

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP164V Combined use of antegrade double-balloon enteroscopy and electrohydraulic lithotripsy for bezoar retrieval in a patient with Crohn's Disease

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Abstract Text We present a case of a 54-years-old male with structuring ileo-colonic Crohn's disease. A magnetic resonance enterography showed a mid-ileal dilation with a 3x1.5cm bezoar; removal through antegrade double-balloon enteroscopy(DBE) was scheduled. It was reached at an estimated depth of 300cm, close to a partially ulcerated stricture. Electrohydraulic lithotripsy(EHL) was performed to reduce its size, shock waves were transmitted in 0.9 %NaCl solution. After a quite rapid exhaustion of the EHL probe, due to kinking in DBE loops, the bezoar was only partially fractured. It was then retrieved using a retrieval net; pylorus and cardia passages were achieved with a single intravenous administration of glucagon (1 mg). No adverse events occurred, and the patient was discharged the day after. DBE is effective in several small bowel condition, resulting in a surgery-sparing technique.
Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/f4bf34a9-d048-432a-9e43-7bfd6b0e3fdb/Uploads/13821_Video_ESGE%202024%20Scaramella.mov
Conflicts of interest Authors do not have any conflict of interest to disclose.

MP165 Extraction to caecum can facilitate endoscopic resection of terminal ileal lipomas : Tongue out technique

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Aims Ileal lipoma is a benign gastrointestinal subepithelial lesion that arises from the submucosa. Although most lipomas are asymptomatic, large lipomas over 2 cm in the ileum can cause symptoms, requiring resection. However, endoscopic treatment in small intestines is one of the most difficult areas to treat owing to its narrow lumen, thin wall, and its abundant mucosal blood supply. There have been previous reports of perforation during resection, as well as other reports of symptom recurrences due to incomplete resection. The high technical expertise required, and the high rate of adverse events have left surgical resection as the mainstay of treatment. We aim to assess the feasibility and technical aspects of endoscopic resection of the ileal lipoma at our hospital.
Methods We retrospectively analysed seven cases of terminal ileal lipoma endoscopically resected at NTT medical centre Tokyo, between January 2010 – October 2023. Technical success rate, resection methods, procedure time, adverse events and recurrence rate were evaluated. A novel endoscopic technique was applied for endoscopic resection of the lipoma. The technique involved extracting the lesion – either spontaneously or endoscopically – into the caecum, allowing sufficient workspace and better view. From the appearance of the lesion protruding out from the ileocecal valve, we have named this "tongue out technique" as it resembled a tongue sticking out of a mouth.
Results Median age of the patients was 74 (50-75) years old and the median size was 31 (14-55) mm in diameter. Only one case had symptoms, and the rest were resected prophylactically. "Tongue out technique" was applied on all seven cases, with all lesions being resected in the caecum, either by endoscopic extraction or by spontaneous protrusion. Three cases were resected with endoscopic mucosal resection (EMR), while endoscopic submucosal dissection (ESD) was performed on the other four. Median procedure time was 6 (4-14) minutes and 35 (10-40) minutes respectively. ESD was chosen as the treatment method when safe snare deployment around the base was not feasible due to the wide base of the lesion. For seven lesions that returned into the ileum upon insufflation, clip and band traction was applied to stabilise the lesion within the caecum. Technical success was 100 % (7/7) and en bloc resection was achieved in all cases. There was one case of delayed post EMR bleeding, which was attributable to clip dislodgement. There were no perforations. No recurrence of the lipoma or associated symptoms have been observed. [1–4]
Conclusions Extraction to caecum by "tongue out technique" is a feasible method to perform endoscopic en bloc resection of terminal ileal lipomas. We believe this new technique will facilitate the procedure allowing more ileal lipomas to be treated with minimally invasive and organ preserving endoscopic procedures.
Conflicts of interest Authors do not have any conflict of interest to disclose.
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MP166 NSAID and Capsule endoscopy – Spectrum of Presentation and Longitudinal Follow-up

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DOI 10.1055/s-0044-1783176

Aims Non-steroidal anti-inflammatory drugs (NSAIDs)-induced small bowel (SB) injuries constitute a well-established entity, presenting a highly variable spectrum of clinical symptoms and endoscopic presentations. The main differential diagnosis in these patients is Crohn's disease (CD). Limited data exist regarding the long-term outcomes, the natural course of NSAIDs-related SB injuries, and discerning factors for differentiation from CD. This study aims to evaluate the spectrum of presentation at capsule endoscopy (CE) and outcome in patients with documented NSAIDs use.
Methods We retrospectively evaluated all CE performed at Sheffield Teaching Hospitals, UK from 2011 to July 2023 in patients with documented NSAID use and who had inflammatory SB injury. Patients' demographics, clinical and endoscopic data, capsule endoscopy findings and outcome were recorded.
Results A total of 56 patients (36 females; median age 54 years, IQR 40.7-64.6) with known NSAID use (41 % weekly, 14 % daily, 13 % on as-needed basis) underwent CE. Ibuprofen (38 %) and naproxen (32 %) were the most frequently used NSAIDs. The most common indications for CE were abdominal pain (59 %), iron deficiency anaemia (54 %) and diarrhoea (38 %). The most prominent findings were erosions (41 %), superficial ulcers (30 %), deep ulcers (20 %) and stenosis (4 %). Median follow-up time was 16 months (IQR 4.4-57). A total of 26 patients underwent 2 CEs, the median time interval was 12 months (IQR 9.7-15.1), and 73 % had suspended NSAIDs for longer than 6 months. A total of 20 (77 %) still had SB injury on the second CE, with the majority (80 %) demonstrating mild changes (Lewis score < 790). Overall, 69 % showed no changes compared to the previous CE findings, 19 % worsened, and 12 % showed improvement. Small bowel CD was diagnosed in 7 out of 26 patients on follow up; based

on a combination of symptoms, blood parameters, CE + /- histology. There were no statistically significant differences in any clinical or endoscopic parameter between NSAIDs enteropathy and those that were diagnosed with CD.

Conclusions NSAIDs enteropathy presents with a wide spectrum of manifestations at CE, which is unable to differentiate NSAIDs enteropathy and CD, emphasizing that the clinical picture is paramount in the diagnostic process of these patients. Furthermore, our study reveals that a significant percentage of patients still exhibit some degree of SB damage after months off from NSAIDs, although ESGE guidelines suggesting that 4-weeks interval of suspension is adequate to allow healing.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP167 Diagnostic accuracy of duodenal endoscopic markers of atrophy and their relation to tissue transglutaminase levels in adult patients with suspected coeliac disease

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DOI 10.1055/s-0044-1783177

Aims Endoscopic markers of atrophy in the duodenum are well described. However, their relation to IgA tissue transglutaminase (tTG) levels has not been studied. We aimed to evaluate the diagnostic accuracy of endoscopic markers of atrophy in adult patients with suspected coeliac disease and IgA-tTG ≥ 10x the upper limit of normal (ULN) compared with those with IgA-tTG < 10x ULN.

Methods We prospectively evaluated the diagnostic accuracy of endoscopic markers of atrophy in consecutive adult patients (≥ 18 years old) with suspected coeliac disease between September 2022 and October 2023 at a single tertiary referral centre. All patients had IgA-tTG serology testing alongside upper GI endoscopy with duodenal biopsies. At least four biopsies were taken from the second part of the duodenum and one from the duodenal bulb. Any endoscopic markers of atrophy were documented. Marsh 3 lesions on duodenal biopsies were considered diagnostic for coeliac disease.

Results A total of 110 patients (median age 37.5 years [IQR 25.7 – 55], 61 % female) were included. The prevalence of biopsy-proven coeliac disease was 58.1 %, and endoscopic markers of atrophy were present in 40 % of all patients. Patients with IgA-tTG ≥ 10 ULN were younger (p = 0.01) and significantly more likely to have endoscopic markers of atrophy compared with patients with IgA-tTG < 10 ULN (56.8 % vs 43.1 %, p < 0.0001). The sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) of endoscopic markers to predict villous atrophy were 64 %, 93.4 %, 93.1 % and 65.1 %, respectively. In patients with IgA-tTG ≥ 10 ULN, the presence of endoscopic markers had a sensitivity of 79.3 %, specificity of 33.3 %, PPV of 92 % and NPV of 14.2 %. Conversely, in patients with IgA-tTG < 10 ULN, endoscopic markers had lower sensitivity (51.4 %) but higher specificity (94.3 %), PPV (94.7 %) and NPV (71.1 %).

Conclusions Patients with IgA-tTG ≥ 10 ULN were more likely to have endoscopic markers of atrophy on endoscopy compared with those with IgA-tTG < 10 ULN. However, the overall diagnostic accuracy of endoscopic markers of atrophy was suboptimal regardless of the IgA-tTG levels, highlighting the indispensable role of biopsies in coeliac disease diagnosis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP168 Role of Balloon Assisted Enteroscopy (BAE) for Management of Adult Small Bowel Intussusception: A Comparative Analysis of Pre- and Post-BAE Era

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Aims Adult small bowel intussusception (ASI) is a rare condition with a pathological etiology in a majority of patients. In the past, surgical intervention was the primary treatment modality; however, preoperative diagnosis of the leading point can now guide management and reduce the need for surgery. In this study, we evaluated whether the introduction of DBE has changed the diagnosis and treatment modalities of ASI by retrospectively analyzing clinicopathological features of ASI in patients with and without preoperative diagnosis by double-balloon enteroscopy (DBE).

Methods Fifty patients with adult intussusception initially diagnosed with abdominal CT scanning at Korea University Guro Hospital from 2000 to 2023 were enrolled in our study. Clinicopathological results were retrospectively analyzed by comparing those with and without DBE

Results Out of the 50 patients, 35 had entero-enteric intussusception and 16 had entero-colic intussusception. Among the entero-enteric type patients, 12 % had a malignant cause. Conversely, in the entero-colic type, 10 out of 16 patients (62.5 %) had a malignant cause (p < 0.01). Among the 35 patients with entero-enteric ASI, 12 underwent preoperative DBE. Surgical resections rate of DBE group was significantly lower (25 %) than that of the group of without DBE (74 %) (p < 0.05). Pathologic diagnosis of the patients who underwent surgical resection without Pre-OP DBE revealed 39 % malignancy and 61 % benign causes (6 cases of lipoma, 6 cases of nonspecific findings, etc)

Conclusions Preoperative double-balloon enteroscopy (DBE) can be a valuable diagnostic and therapeutic modality for ASI with low-grade small bowel obstruction, and it can avoid surgical resection in a majority of ASI cases.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP169 Panenteric Investigation and Surveillance with Double-Balloon Enteroscopy in Patients with Short Bowel Syndrome Treated with Teduglutide

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DOI 10.1055/s-0044-1783179

Aims Short bowel syndrome (SBS) is the primary cause of chronic benign intestinal failure. Teduglutide (TED), a glucagon-like peptide-2 analog, is the only approved pharmacological therapy for SBS to reduce the need for parenteral nutrition and intravenous fluid support. [1, 2] Administered as a bowel trophic hormone, there are concerns regarding colorectal and small bowel cancer in patients undergoing TED treatment. Therefore, baseline and follow-up colonoscopy for cancer screening and surveillance are indicated. However, there is a lack of data on small bowel oncologic surveillance. This study aimed to assess the feasibility and efficacy of double-balloon enteroscopy (DBE) surveillance of SBS patients undergoing TED treatment.

Methods All SBS patients treated with TED between December 2019 and October 2023 underwent DBE at a tertiary referral center for enteroscopy before starting or within a year of TED prescription. Retrospective data collection included demographics, clinical characteristics, and information related to endoscopy and histology.

Results Nine patients (2 males, median age 65.5, IQR 20) with SBS (22 % type 1, 55.6 % type 2, 22.2 % type 3-SBS) underwent DBE (7 anterograde, 2 retrograde) under procedural sedation, with no adverse events. Mesenteric ischemia (33.3 %) and post-surgical complications (33.3 %) were the most frequent causes of SBS. The median interval from TED prescription to DBE surveillance was 6 months (IQR 8). Panenteric examinations were successfully conducted in 66 % of cases with a single endoscopic procedure. Panenteric DBE allowed the estimation of small bowel residual length in all cases (2/2) where this important clinical information was unknown. Furthermore, panenteric DBE revealed a different residual small bowel length compared to surgery in 44 % of patients. Enteroscopy identified three patients with anastomotic stenosis and one anastomotic ulcer with oozing bleeding. No small bowel malignancies were detected during the study period. Histology indicated a normal trophism of the small bowel mucosa in 88 % of patients, with moderate villous atrophy found in a single case.

Conclusions DBE surveillance for small bowel malignancy in SBS patients undergoing TED treatment is feasible and effective. Total enteroscopy can be frequently achieved with a single endoscopy in these patients, allowing easy oncologic surveillance.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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Update in esophageal therapies

26/04/2024, 15:30 – 16:30 **Science Arena: Stage 2**

MP170 Endoscopic radiofrequency ablation versus hybrid argon plasma coagulation in the treatment of Barrett's esophagus – the patients' perspective: a randomized controlled trial assessing procedural acceptability and safety (the RATE study)

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Aims Endoscopic radiofrequency ablation (RFA) and argon plasma coagulation (APC) are established ablation techniques in the treatment of Barrett's esophagus (BE). Currently, a modification of the APC method involving submucosal injection of saline preceding the thermal ablation (hybrid-APC) has become available. Both RFA and h-APC are highly effective in eradicating BE, but data comparing the patient-related outcomes of these procedures remain limited. We aimed to evaluate the acceptability, safety, and impact on the patient's quality of life of these two methods.

Methods In this prospective single-blinded randomized-controlled trial, consecutive adult patients requiring ablative treatment for BE were enrolled to receive either RFA or h-APC. For each ablation, we recorded the procedural time, as well as the level of post-procedural chest pain, the degree of dysphagia, and the esophageal-specific quality of life through a numeric analog scale (NAS), the Mellow-Pinkas scoring system, and validated QLQ-OES18 questionnaire, respectively. Those outcomes were evaluated before and after each procedure, on day 7, and day 30. The results were then compared between the two modalities using the Wilcoxon rank-sum test. Adverse events (AEs) were actively monitored, classified accordingly with the AGREE classification, and compared using the chi-square test.

Results Overall, we analyzed 69 ablation procedures (32 RFA[46.4 %]; 37 h-APC[53.6 %]) performed in 39 patients (33 males [84.6 %]; mean age 62.1[± 11.7] yrs.) with a median BE segment length of C0M3 (C-IQR: 0-3.5, M-IQR: 2-7). Twenty-one patients (53.8 %) underwent previous endoscopic resection for a visible dysplastic lesion. The remaining 18 patients had confirmed low-grade dysplasia (LGD) without visible lesion. The maximum BE grades included: 5 pT1 adenocarcinomas (EACs; 12.8 %), 18 high-grade dysplasia (HGD; 46.2 %), and 16 low-grade dysplasia (LGD; 41.0 %). The mean procedure time for h-APC and RFA was 12.9 (± 6.37) and 9.12 (± 4.93) minutes, respectively (P = .003). Both NAS pain scores and dysphagia degree at day 7 post-procedure were significantly higher for the RFA as compared to h-APC (5 [IQR 0-7] vs. 1 [0-4], P = .010), respectively. On day 30 after the procedure, these metrics decreased to a median value of 0, both for RFA and h-APC. There was no significant difference in the QLQ scores between groups, neither before nor at any time point after the procedure. Major AEs included 3 strictures (15.8 %) in the RFA group, as compared to 1 stricture within the h-APC group (5.0 %; P = .560). [1–2]

Conclusions Despite a shorter procedural time, RFA carries a higher burden of post-ablation chest pain and degree of dysphagia within the first week after the procedure, as compared to h-APC. These symptoms are intermittent and seem to resolve completely in both treatment groups on day 30 after treatment.

Conflicts of interest Honoraria and fee's from Medtronic and ERBE

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MP171 Comparison of EMR and ESD for early Barrett's neoplasia: A Systematic Review and Meta-Analysis

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Aims Barrett's esophagus (BE) with visible lesions including high-grade dysplasia and esophageal adenocarcinoma is treated by endoscopic resection. Endoscopic mucosal resection (EMR) and endoscopic submucosal dissection (ESD) are both accepted strategies for resection of Barrett's lesions. However, a lack of consensus exists regarding which technique offers superior clinical outcomes and safety. This study aims to compare the clinical outcomes and safety of EMR versus ESD in treating early Barrett's neoplasia and esophageal adenocarcinoma.

Methods We searched 3 databases (Embase, MEDLINE, Cochrane Central) until October 1st, 2023. We included studies aimed at assessing the efficacy of EMR and ESD as treatment modalities for BE and esophageal adenocarcinoma. Our inclusive criteria encompassed randomized trials as well as observational studies. We focused on key outcome measures, namely, *en bloc*, R0 and curative resection rates, recurrence rates and adverse events rates. We performed meta-analyses on reported rates for *en bloc*, R0 and curative resection, and recurrence. Effect sizes were expressed as pooled Odds Ratio (OR) and 95 % Confidence Intervals (CI) for resection and recurrence rates, and 95 % Confidence Intervals (CI).

Results Our search identified 905 records. We excluded 181 duplicates, screened 22 full texts and 724 abstracts from the total search. 15 studies were included in the final analyses. Data pooled from 11 studies showed significantly higher *en bloc* resection rates [OR = 1.846 (95 % CI: 1.567-2.125), 11 studies]

with ESD. R0 resection rates from 10 studies were significantly higher with ESD [OR = 1.58, (95 % CI: 0.955-2.21), 10 studies]. Curative resection rates from 5 studies were significantly higher with ESD [OR = 1.173 (95 % CI: 0.066 – 2.280), 5 studies]. The local recurrence rates pooled from 10 studies were significantly higher with EMR [OR = 0.941 (95 % CI: 0.129-1.753), 10 studies].

Conclusions In a systematic review of studies comparing EMR and ESD for early Barrett's neoplasia, ESD achieves higher *en bloc*, R0 and curative resection rates, while EMR is associated with higher local recurrence rates. These results suggest that ESD may be a more effective option for managing early Barrett's neoplasia. [1–13]

PROSPERO: (CRD42023426486)

Conflicts of interest All the authors have no relevant financial disclosures or conflicts of interest to declare.CWT – Speaker: Medtronic and Boston Scientific, Consultant: Boston Scientific. SCG –Research grants and personal fees from AbbVie and Ferring Pharmaceuticals, personal fees from Takeda, Sanofi, and BioJAMP, education grants from Janssen, and has equity in Volo Healthcare.

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MP172 Endoscopic resection of early esophageal neoplasia can safely be performed in patients with esophageal varices

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Aims Although endoscopic resection (ER) is recommended as first-choice treatment for early esophageal neoplasia, patients with esophageal varices are considered a high risk group due to an increased bleeding risk. However, since most of these patients are precluded from major esophageal surgery due to portal hypertension, endoscopic therapy may be the only treatment option in these patients. This retrospective, multicenter study aimed to evaluate the efficacy and safety of endoscopic therapy of early esophageal neoplasia in this specific patient category.

Methods Patients with esophageal varices who underwent ER for early esophageal neoplasia were included in three Dutch tertiary centers between January 2014 and December 2022. Patients were identified by systematically screening endoscopy databases in each participating site. All ER procedures were performed by dedicated endoscopists and prophylactic measures to reduce the risk of variceal hemorrhage were initiated at the discretion of the endoscopist. Outcomes included the incidence of prophylactic measures, histologically radical and curative resection rate, adverse events and procedure-related mortality.

Results Twenty-one patients (21 male; median age 69; 16 Child Pugh A liver cirrhosis) were included of which the majority was diagnosed with Barrett's neoplasia (15/21; 71 %), while the remaining cases had esophageal squamous cell carcinoma (3/21; 14 %) or cardia neoplasia (3/21; 14 %). In 16/21 (76 %) patients, the esophageal varices were small (i.e. < 5mm) and prophylactic measures mainly consisted of octreotide administration (5/16; 31 %) and/or direct varix coagulation during resection (9/16; 56 %). In one patient (1/21; 5 %), the lesion was located on top of a large varix (i.e. ≥ 5mm) after which the decision was made to ligate the lesion without subsequent snaring. Endoscopic rubber band ligation prior to ER was applied in one patient with large varices (1/21; 5 %), while periprocedural prophylactic ligation was performed in one patient (1/21; 5 %) with small varices distal from the lesion. A transjugular intrahepatic portosystemic shunt was placed prior to ER in two patients (2/21; 10 %), either due to the large size of the varices (n = 1) or the large extent of the neoplastic lesion in combination with small varices (n = 1). Histologically radical resection was achieved in 18/21 (86 % [95 % CI 67-100 %]) and the curative resection rate was 14/21 (67 % [95 % CI 43-86 %]). While no procedure-related mortality was observed, adverse events were seen in 4/21 (19 % [95 % CI 5 %-38 %]) patients. Only one patient (1/21; 5 % [95 % CI 0 %-14 %]) with small varices experienced postprocedural bleeding which resolved after octreotide administration. Other adverse events included stricture (n = 1), laceration (n = 1) and aspiration pneumonia (n = 1).

Conclusions ER appears to be a safe and effective option in selected patients with concurrent early esophageal neoplasia and esophageal varices, provided that a tailored approach of adequate prophylactic measures is applied to prevent bleeding.

Conflicts of interest Bas Weusten has received research funding from Pentax Medical, C2 Therapeutics, and Aqua Medical. Roos Pouw is a consultant for Pentax Medical, Medtronic, and Erbe Medical, and has received research funding and speaker's fees from Pentax Medical, Medtronic, and Erbe Medical. Jacques Bergman is a consultant for Medtronic, Cook Medical, and Boston Sci-

entific, and has received research funding from Pentax Medical, C2 Therapeutics, Medtronic, Aqua Medical, Olympus Endoscopy, and Fuji-film. Charlotte Frederiks has received speaker's fee from Pentax Medical.

MP173 Evaluation of the clip anchorage technique using mucosal elevation and incision in prevention of esophageal stent migration

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DOI 10.1055/s-0044-1783183

Aims Migration remains a frequent complication following esophageal stent placement, particularly for covered material. Fixation of the stent to the mucosa using hemostatic clips has been shown to reduce the migration rate. In the hypothesis of a more efficient anchorage, the placement of a clip in a sub-mucosal situation has been described. The primary objective of the study was to evaluate the efficiency of this technique for preventing esophageal stent migration. Secondary objectives were to determine safety, predictive factors of migration and time to migration after stent placement.

Methods This is a retrospective case-control analysis of a prospective, monocentric database. Patients with a fully covered esophageal stent, fixed or not to the mucosa, between November 1, 2020 and April 30, 2023, for different indications were included. Fixation of the stent to the mucosa, at their oral flange, was achieved using at least 2 through the scope (TTS) clips, placed for a bite in submucosal space after its injection with normal saline and mucosal incision using the tip of a snare.

Results A total of 42 out of 71 patients were included, 20 stents fixed to the esophageal mucosa (fixed group) and 22 stents were placed without anchoring (control group). Benign disease accounted for 75.0 % of stenting indications in the fixed group and 50.0 % in the control group (p = 0.121). The distribution of strictures and fistulas was comparable in both groups (p = 0.539). Stent therapy duration was 53.8 days in the fixed group vs. 39.7 days in the control group (p = 0.488). The overall migration rate was comparable in both groups (55.0 % in the fixed group vs. 36.4 % in the control group (p = 0.352)). A trend towards a reduced risk of early migration was observed (migration rate of 18.2 % with clips vs. 50.0 % for unfixed stent within one month of insertion (p = 0.319)). A history of radiochemotherapy prior to stent was predictive of migration. There was no increased complication rate at placement or removal in the treated group. [1–4]

Conclusions This technique of esophageal stent fixation appears to be simple, feasible and safe. It does not prevent the stent migration overall, but could reduce the risk of early migration (within the first month). Other techniques more recently described in the literature, such as endoscopic suturing or over the scope clip fixation, have been shown to be more efficient. TTS clip fixation, however, presents the advantage of requiring inexpensive equipment that is readily available in digestive endoscopy departments.

Conflicts of interest Norgine (Conference)Tillots (Conference)Pentax (Conference)Fujifilm (Conference)Ambu (Consultant)Boston Scientific (Consultant)

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MP174 Endoscopic submucosal dissection (ESD) of early neoplasia in the upper gastrointestinal tract with a super pulsed thulium fiber laser-initial experience

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DOI 10.1055/s-0044-1783184

Aims Endoscopic Submucosal Dissection (ESD) is increasingly recognized as the new standard treatment for early mucosal neoplasia in the gastrointestinal tract. While conventional ESD employs an electrosurgical unit and ESD knife, this study explores the application of a novel super pulsed Thulium Fiber Laser (TFL) in ESD for upper gastrointestinal neoplasia. This study evaluates the feasibility and preliminary efficacy of TFL-ESD.

Methods We utilized a 365-micron TFL fiber, delivered through a 4.5-7 Fr triple-lumen ERCP cannula for enhanced fiber stability, with energy settings ranging from 10-30W. The study included seven patients (3 females, 4 males) with gastric neoplasia (n = 1), esophageal squamous cell carcinoma (n = 1), and early Barrett's neoplasia (n = 5), of which 2 had extensive fibrosis from previous EMRs.

Results R0 resection was successfully achieved in all cases. The mean procedure time was 125 minutes, and the average specimen size was 24x37mm. Notably, there were no perioperative complications, and the TFL instrument effectively managed bleeding. Post-procedure, patients reported minimal discomfort and were typically discharged after one day.

Conclusions The use of TFL in ESD for upper gastrointestinal neoplasia is both feasible and promising. However, it necessitates a learning curve and specialized instruments. The unique characteristics of TFL make it particularly suitable for confined spaces and fibrotic tissues. Further studies are required to substantiate these initial findings and explore the broader applications of TFL in gastrointestinal endoscopy.

Conflicts of interest Pham KDc is a consultant, speaker and traienr for Olympus EMEA

MP175 Prospective Study Evaluating the Feasibility of Fiducial Markers Placement for Treatment of Esophageal or Rectal Cancers (FIDECHO)

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DOI 10.1055/s-0044-1783185

Aims Only few studies evaluated the feasibility of fiducial markers placement under Endoscopy Ultra-Sound (EUS) guidance in patients with esophageal or rectal cancer. The aim was to evaluate the success of fiducial markers placement under EUS guidance.

Methods This French prospective multicenter study included patients treated for rectal or esophageal tumor requiring radiation therapy, between March 2017 and June 2021. Fiducial placement was performed under EUS using the preloaded 22-gauge EchoTip Ultra Fiducial needle (Cook Medical, Limerick,

Ireland). The main objective was to evaluate the success of fiducial markers placement to target the tumor under EUS guidance, defined by the ability of releasing fiducials at least at the top and the bottom of the tumor. The secondary aims were to evaluate the rate of adverse events, the length of the procedure, and if fiducial markers are still in place at the end of radiation therapy.

Results The mean (+/-SD) age of the 33 patients included was 64.2 ± 11.3, 66.7 % were male. Twenty patients had adenocarcinoma of the rectum and 13 had esophageal malignancies (8 squamous cell carcinomas, 5 adenocarcinomas). The mean size of the lesion (+/-SD) was 42.0 (+/-17.0).

No technical failure, defined by either failure to place the needle at the target location or failure to release the markers from the needle, was experienced. The success of fiducial markers placement defined as the ability to place, at a minimum, one marker at the upper pole and a second at the lower pole of the malignant lesion, was 93.9 %. For 2/33 patients, fiducial markers could only be released in the upper part of the tumor, and fiducial markers could not be placed in the lower part of the tumor. The average procedure time (+/-SD) was 12.5 min (+/-4.8).

The number of fiducial markers placed during EUS was 3.8 (+/-0.5). No adverse events occurred during the procedure. During follow-up and at the end of radiotherapy, for all patients for whom data were available, the markers were still visible on imaging (either standard follow-up radiology: chest X-ray or ASP, or follow-up CT scan).

Conclusions This prospective multicenter study highlights the safety and very high success of the placement of fiducial markers under EUS, for the treatment of rectal and esophageal tumors without adverse event and for a reasonable endoscopic procedure time. These markers are clearly visible on imaging and remain in place over time during the course of radiation therapy.

ClinicalTrials.gov ID: NCT03057288

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP176 Endoscopic full thickness dissection (EFTD) of T2 oesophageal adenocarcinoma in surgically unfit patients: a case series (with video)

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Abstract Text In 3 surgically unfit patients with T2N0M0 oesophageal adenocarcinoma (OAC), an endoscopic full thickness dissection (EFTD) was offered: using the TriangleTipKnife J (Olympus Corp.) a 'tunnel technique' was applied towards the suspected area of invasion of the muscularis propria. The suspected invasive component was not touched, but rather an incision into the muscularis propria was made 10mm more proximally until the peri-oesophageal space was reached. The submucosal plane was re-entered approximately 10mm distal to the invasive component. The 'underwater technique' was used to re-establish the submucosal plane. Subsequently the margins of the tunnel were dissected providing an en-bloc, full thickness dissection of the OAC. A fully covered self-expanding metal stent was placed in all patients. During follow-up (ranging between 14 and 1 months), no evidence of disease recurrence was found.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP177 Retrospective Analysis of Palliative Oesophageal Stenting at a District General Hospital in the UK; Is it time to fix migration?

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DOI 10.1055/s-0044-1783187

Aims We aimed to retrospectively appraise the outcomes of patients who have undergone oesophageal stent insertion for all causes over a 32-month period in a UK district general hospital.

Methods Retrospective data for fluoroscopy guided endoscopic oesophageal stenting over a 32-month period (Jan 2021 to Oct 2023) was collected from MEDILOGIK; an online database and reporting system for endoscopic procedures. Patient demographics and outcome measures relating to procedure indication, complications, 30-day mortality, 8-day readmission, intervention location, type of stents and survival post procedure were analysed. We defined re-intervention as the need for therapeutic endoscopy requiring any of; re-stenting, and/or laser ablation, and/or dilatation (balloon or bougie) after index stent insertion.

Results 49 patients underwent oesophageal stenting with 3 different types of SEMS being used by three operators. For 28 patients (57 %), index stent insertion was a definitive procedure. For the remaining 21 patients (43 %), re-intervention for second stent placement or exchange, laser, bougie or balloon dilatation was required for recurrence of dysphagia. The mean patient age was 74 years, (range 36 to 93 years). Overall, 30-day mortality was 10 % (N = 5) and the 8-day readmission rate was 2 % (N = 1). Perforation occurred in 3 patients, but only one was directly related to stent insertion. Amongst the 21 patients needing re-intervention, stent migration (defined as > 2cm of distal or proximal movement from original level of deployment) occurred in 25 % (N = 12). 9 patients required laser therapy for tumour ingrowth (18 %) while 20 % (N = 10) underwent balloon dilatation. 17/21 needed second stent insertion or stent exchange (35 %). The majority of tumours were junctional or lower oesophageal cancers (N = 37). 3 patients had early stent migration to the stomach and 3 patients had haemostatic clips applied after stent deployment which were ineffective in preventing migration. The overall mean survival post stent was 4 months. [1–5]

Conclusions Whilst oesophageal stenting is effective and safe for patients with advanced oesophageal cancer, stent migration occurred in one quarter of all patients. Haemostatic clips did not appear to be effective for stent fixation. We suggest stent fixation with dedicated over the scope clips should be made routine practice for palliative stent insertion. These have been shown to be a cost effective and definitive option to reduce re-intervention in a significantly frail and comorbid population.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP178 The Role of Preventative Therapies in Stricture Formation Post Esophageal Endoscopic Resection

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Aims Endoscopic resection is the standard of care for superficial esophageal neoplasms. Advances in techniques have allowed extensive resections resulting in circumferential defects, but this substantially increases the risk of stricture formation requiring ongoing intervention. Several prophylactic strategies have been described to mitigate the stricture risk, yet a comprehensive understanding of their usefulness remains uncertain. The aim of this study is to review and analyse the current literature with regards to stricture prophylaxis.

Methods A literature search was conducted using Ovid MEDLINE All, Ovid Embase Classic + Embase, Scopus, CINAHL Complete via EBSCOhost, and Ovid EBM Reviews – Cochrane Central Register of Controlled Trials from database inception to August 1, 2023. Randomized controlled trials (RCTs) and observational studies (retrospective or prospective) focusing on prophylactic stricture prevention interventions were included. Standard meta-analyses were employed using the random-effects model, and heterogeneity was assessed by I2 % statistics.

Results The interventions included steroids, botulinum toxin, mechanical therapies, and novel or emerging techniques, compared to either no therapy or alternative prophylactic therapy. The pooled stricture/restenosis rate in the no-intervention group was 51.2 % (95 % CI: 36.6-65.6; I2 = 90 %) across 16 studies. Notably, oral steroid administration demonstrated a significantly lower pooled stricture/restenosis rate at 27.6 % (95 % CI: 18.7-38.7; I2 = 0 %) across 11 studies. Steroid injection and balloon dilation presented pooled rates of 28.1 % (95 % CI: 16.9-43; I2 = 79 %) and 66.8 % (95 % CI: 48.4-81.2; I2 = 55 %). There was a substantial risk reduction in stricture/restenosis with steroid injection with a pooled risk ratio of 0.44 (95 % CI: 0.29-0.65; P < 0.001), oral steroid administration (RR 0.43, 95 % CI: 0.25-0.73; P = 0.002) and topical steroid application (RR 0.46, 95 % CI: 0.23-0.91; P = 0.02). Additionally, the combination of Polyglycolic Acid (PGA) and stent intervention presented a compelling risk ratio of 0.41 (95 % CI: 0.23-0.74; P 0.003) when compared to stent alone.

Conclusions Our study highlights the varying effectiveness of prophylactic interventions in preventing esophageal stricture formation post-endoscopic resection. Notably, oral steroid administration and steroid injection showed significant reductions in stricture rates as compared to no interventions. PROSPERO (CRD42022335103)

Conflicts of interest CWT – Speaker: Medtronic and Boston Scientific, Consultant: Boston Scientific. GRM – Consultant for Olympus. Speaker: Pentax, Fuji and Medtronic. JDM – Speaker: Boston Scientific, Pendopharm, SCOPE rounds, Vantage, Medtronic. Medical Advisory Board: Pendopharm, Boston Scientific, Janssen, Pentax, Fuji. Grants and Research support: CAG. SCG –Research grants and personal fees from AbbVie and Ferring Pharmaceuticals, personal fees from Takeda, Sanofi, and BioJAMP, education grants from Janssen, and has equity in Volo Healthcare.

MP179V Novel method for refractory tracheoesophageal fistula closure : modified polydioxanone suture mesh with fibrin glue

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DOI 10.1055/s-0044-1783189

Abstract Text A 5 year old child of congenital tracheoesophageal fistula (TEF) presented with recurrence after failing multiple surgical and endoscopic attempts of closure. An endoscopic examination revealed fistula opening with diameter of 7mm at 19cm from incisors. Our method used modified suture mesh placement with three sessions of fibrin glue injection. Polydioxanone suture of size 3-0 was used to knit the tubular mesh after putting multiple knots. It was then placed in the fistula and fixed with clips after ablating edges with argon plasma coagulation, forced mode, 40W. Subsequently a double lumen catheter was used to deliver processed components of fibrin sealant (fibrinogen and thrombin with aprotinin and calcium chloride) into the fistula tract to form the final fibrin clot. Repeat ablation and fibrin glue application (3 sessions) was done at interval of 2 weeks leading to complete closure of the fistula.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/bfb8879e-11f3-4f4c-9d7c-6227dc54abfc/Uploads/13821_ESGE_Abstract%20no%20000040%20.mpeg

Conflicts of interest Authors do not have any conflict of interest to disclose.

Colonoscopy: if you clean better, you can treat better

26/04/2024, 16:45 – 17:45 **Science Arena: Stage 2**

MP180 Comparative efficacy of different bowel preparations for colonoscopy: a network meta-analysis

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DOI 10.1055/s-0044-1783190

Aims Colonoscopy quality strictly depends on adequate bowel cleansing, which may affect the diagnostic accuracy and detection of adenomas. Many products for bowel cleansing have been proposed to date, but their comparative efficacy is still unclear. This systematic review with network meta-analysis aims to compare the performance of different bowel preparations for colonoscopy.

Methods MEDLINE, Embase, Scopus, and the Cochrane Library were systematically searched for randomized controlled trials (RCTs) comparing the efficacy of different bowel preparations administered as split or same-day regimen. Only studies assessing the bowel cleansing with the Boston Bowel Preparation Scale (BBPS), were included. The primary outcome was cleansing success (CS) defined as a total BBPS score of ≥ 6. The secondary outcome was ADR, defined as the percentage of patients with at least one adenoma in the analyzed population. Direct and indirect comparisons were performed among different bowel preparations. Results were expressed as risk ratio (RR) and 95 % confi-

dence interval (CI). The study quality was evaluated using the revised Cochrane risk-of-bias tool for randomized trials (RoB2 tool).

Results On network meta-analysis for CS (22 RCTs, 7179 patients, 14 bowel preparations assessed), 2L PEG + simethicone (RR = 1.25 [95 % CI = 1.13-1.37]), 2L PEG + lactulose (RR = 1.22 [95 % CI = 1.10-1.38]) and 1L PEG + ASC (RR = 1.03 [95 % CI = 1.01-1.06]) resulted significantly superior to 2L PEG + ASC (ref). Overall, 2L PEG + lactulose resulted as the best product (SUCRA 0.94), followed by 2L PEG + simethicone (SUCRA 0.93), whereas 2L PEG + ASC showed the poorest performance.

On network meta-analysis for ADR (17 RCTs, 6639 patients, 11 bowel preparations assessed), only 2L PEG + simethicone (RR = 1.60 [95 % CI = 1.05-2.43]) resulted significantly superior to 2L PEG + ASC (ref). Overall, 2L PEG + lactulose resulted as the best product (SUCRA 0.91), followed by 2L PEG + simethicone (SUCRA 0.89), whereas 1L PEG + linaclotide showed the poorest performance. According to the RoB2 tool, none of the studies included was of poor methodological quality.

Conclusions 2L PEG + simethicone, 2L PEG + lactulose, and 1L PEG + ASC seemed to provide high rates of cleansing success, albeit only 2L PEG + simethicone was associated with a significantly higher ADR. As a consequence, these products should be preferred for bowel preparation of colonoscopy. Further randomized studies with adequate sample sizes are needed for a more accurate comparison of these products on ADR.

Conflicts of interest Marcello Maida and Roberto Di Mitri served as advisory board member and received lecture grants from Norgine. Lorenzo Fuccio and Roberto Vassallo received consultation fees from AlfaSigma and Norgine. Other authors have no conflict of interests.

MP181 Impact of bowel preparation quality on colonoscopy findings and colorectal cancer deaths in a nation-wide colorectal cancer screening program

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DOI 10.1055/s-0044-1783191

Aims Adequate bowel preparation is paramount for a high-quality screening colonoscopy. Despite the importance of adequate bowel preparation, there is a lack of large studies that associated the degree of bowel preparation with long-term colorectal cancer death in screening patients.

Methods In a large population-based screening program database in Austria, quality of bowel preparation was estimated according to the Aronchick scale by the endoscopist (excellent, good, fair, poor and inadequate bowel preparation). We used logistic regression to assess the influence of bowel preparation on the detection of different polyp types and the inter-physician variation in bowel preparation scoring. Time to event analyses were performed to investigate the association of bowel preparation with post-colonoscopy colorectal cancer (PCCRC) death.

Results 335466 colonoscopies between 01/2012 and follow-up until 12/2022 were eligible for the analyses. As compared to excellent bowel preparation, adenoma detection was not significantly lower for good bowel preparation (OR 1.01, 95 % CI 0.9971 – 1.0329, p = 0.1023), however, adenoma detection was significantly lower in fair bowel preparation (OR 0.97, 95 % CI 0.9408 – 0.9939, p = 0.0166). Individuals who had fair, poor or inadequate preparation at screening colonoscopy had significantly higher hazards for PCCRC death (HR for fair bowel preparation 2.56, 95 % CI 1.67 – 3.94, p < 0.001).

Conclusions Fair bowel preparation on the Aronchick scale was not only associated with a lower adenoma detection rate, but also with increased risk for PCCRC death. A bowel preparation score above *fair* might be the most suitable cutoff for adequate bowel preparation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP182 Assessing colonoscopy competence in french hepatogastroenterology residents: an observational study using a self-reported digital questionnaire

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DOI 10.1055/s-0044-1783192

Aims We wanted to assess the number of procedures required to achieve colonoscopy competency among french residents hepatogastroenterology

Methods The procedures were compiled in a digital portfolio using a Google Form throughout the residency of participants from four regions of France. The main outcome measure was achieving > 90 % cecal intubation competence (CIR90) and Learning Curve (LC) competency calculated by LC-CUSUM. If participants had > 80 procedures, they were categorized into two groups: intensive and progressive training.

Results The study involved 81 residents with at least 20 attempts, accounting for a total of 6259 procedures. The progressive group comprised 12 individuals, and the intensive group comprised 17 individuals. On average, 204 colonoscopies were necessary to reach the CIR90 competency threshold, which was achieved by 20.99 % of the total residents, specifically, 17 out of 81. When comparing the progressive and intensive groups, there was no significant difference, with 50 % (6/12) and 64.71 % (11/17) respectively reaching the CIR90 threshold, p = 0.50. LC competency was accomplished by 8.6 % of the total residents, meaning 7 out of 81, after an average of 225 procedures. The distribution among the progressive and intensive groups was 25 % (3/12) and 23 % (4/17), respectively, p = 0.21. The Polyp Detection Rate (PDR) averaged 40 %, independent of the number of procedures performed.

Conclusions The study confirms the threshold of 200 colonoscopies which is already recommended for residents to achieve competency. 20.99 % reached CIR90, considering this finding, additional efforts are needed to increase the number of colonoscopies performed during the medical residency in France. Future research should focus on other factors influencing the development of colonoscopy competency.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP183V Possibility of ultra-high magnification endoscopy: the tiniest colorectal adenoma ever found

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DOI 10.1055/s-0044-1783193

Abstract Text With years of research and development endoscopy equipment has gone from fiber optic to ultra-high magnification endoscopes with artificial intelligence (AI). It allows endoscopists to detect polyps, especially adenomas at the earliest possible stages. Which leads to a significant increase in adenoma detection rate. A 47 y.o male came in for a screening colonoscopy. In the ascending colon, Paris 0-IIa lesion up to 1mm was visualized with AI assistance. In the narrow-band imaging (NBI) and ultra-high magnification endoscopy the vessel and surface patterns were classified as JNET 2A, pit pattern – Kudo IIIL with only 9 pits involved. An optical diagnosis of tubular adenoma was made and cold forceps polypectomy was performed. Pathology showed tubular adenoma sized 828.8μm, which is, probably, the tiniest adenoma ever found.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/eb824269-1c0a-4181-887c-1ea49b60d08e/Uploads/13821_9-pits_colon%20polyp.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP184 Safety and efficacy of a novel needle-type knife with through the needle fluid injection compared to a conventional needle-type knife for colorectal ESD: preliminary findings of a prospective cohort study

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DOI 10.1055/s-0044-1783194

Aims Colorectal ESD remains a technically difficult procedure. To improve safety, efficacy and efficiency, new ESD devices continue to be developed. Unlike conventional needle-type knives, the Tech Knife (TK; Micro-Tech, Co.) is capable of pumping fluid through the tip of the knife. We evaluated the efficacy and safety of the TK in colorectal ESD compared with a conventional needle-type knife.

Methods This is a prospective cohort study with 200 colorectal ESD cases performed between January-October 2023. We compared between 102 cases treated with TK (TK group) and 98 cases treated with Dual Knife (DK; Olympus) (DK group). Primary outcome was procedure time. Secondary outcomes included ESD procedure details including dissection speed, device insertions/removals, local injection volume and intraoperative muscle layer damage or perforation. We defined expert operators in this study as those who had experience in performing at least 50 cases of ESD for colorectal ESD, and trainees as those who had experience in performing less than 50 cases of that.

Results Baseline characteristics (age, gender, operator skill and lesion size, site, morphology) were not significantly different between the two treatment groups. There was no difference in procedure time (47.3/51.2 min; $P = 0.45$), dissection speed (29.9/25.7mm^2/min; $p = 0.14$). There was no difference in total local injection volume (34.0/32.2ml; $p = 0.55$), however in the TK group, there were significantly fewer intraprocedural device insertions/removals (2.3/3.2; $p < 0.05$). And there was no difference in complications in intraoperative muscle layer damage or perforation (14/15; $p = 0.84$). In the cases which performed by expert operators, there was no difference in procedure time (41.7/45.0 min; $P = 0.57$), on the other hand, there was significantly faster dissection speed in the TK group than in the DK group (36.4/29.1mm^2/min; $p < 0.05$). In the cases which performed by trainees, there was no difference in procedure time (60.9/68.4 min; $P = 0.44$), dissection speed (14.2/16.2mm^2/min; $p = 0.44$).

Conclusions TK had similar efficacy and safety compared with DK, however the number of device insertions/removals was significantly lower with TK than with DK, suggesting that TK may be a more convenient than DK. If limited to Experts, TK may have faster the dissection speed by requiring less device loading and unloading compared to DK.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP185 Feasibility of the Mantis Clip for Mucosal Defect Closure after Colorectal Endoscopic Submucosal Dissection

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DOI 10.1055/s-0044-1783195

Aims Mucosal defect closure after colorectal endoscopic submucosal dissection (ESD) may decrease the incidence of delayed adverse events (AEs) such as bleeding, perforation. This study aimed to assess the efficacy of the Mantis Clip (Boston Scientific) in mucosal defect closure after colorectal endoscopic submucosal dissection (ESD), potentially reducing delayed adverse events such as bleeding and perforation.

Methods This retrospective analysis included 33 colonic ESD cases (May-October 2023) at Showa University Koto Toyosu Hospital, Digestive Diseases Center, Tokyo, Japan. In each case, a single Mantis Clip was employed to initially approximate the mucosa of the defects, and conventional clips supplemented this to achieve complete closure. The primary outcome measured was the closure success rate, while secondary outcomes included defect size, closure time, sustained closure rate, number of additional clips, and delayed adverse events.

Results Complete closure was attained in 97.0 % (32/33) of cases. The median defect size was 30 mm (IQR: 26.5-38.5, range 16-62). Initial approximation of the mucosa with the Mantis Clip took a median of 1.25 minutes (IQR: 1.0-1.9 minutes), with a total median complete closure time of 8 minutes (IQR: 6-11.5 minutes). An average of 7 additional clips were required. Sustained closure was confirmed in 96.9 % (31/32) of cases at a 4-day follow-up. Minor post-ESD bleeding, which was treated conservatively, occurred in one patient who was on two antithrombotic medications; however, no delayed perforations or other complications were noted.

Conclusions The Mantis Clip has shown promising results in facilitating the closure of mucosal defects following colorectal ESD, characterized by high success rates and reliability in maintaining closure. While these findings are encouraging, the study's limited sample size necessitates further investigation. Future research should focus on larger-scale, prospective, and comparative studies to more comprehensively evaluate the efficacy and safety of the Mantis Clip in diverse clinical scenarios.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP186 Optical Diagnosis in Colonoscopy: We can't all be (GI) Geniuses

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DOI 10.1055/s-0044-1783196

Aims To compare the performance of expert endoscopists, trainee endoscopists and CADx in characterising colonic polyps.

Methods In this multi-centre prospective comparison study, independent endoscopists performed high-definition colonoscopies with GI Genius (Medtronic, Dublin, Ireland) between August and November 2022. All detected polyps were documented (white light imaging, narrow band imaging and near focus), resected and retrieved. CADx diagnosis was recorded (adenoma/non-adenoma/no prediction). Histologic diagnosis was recorded. Blinded to histologic diagnosis, expert and trainee endoscopists independently predicted polyp type based on photo documentation. Comparison of diagnosis was made between Consultants, Specialist Registrars (SpR's), First year trainees and CADx (GI Genius) and compared against final histologic diagnosis.

Results 139 polyps across two centres were detected. GI Genius correctly characterised 97 (69.8 %), incorrectly characterised 25 (18 %) and made no prediction for 17 polyps (12.2 %). Consultants correctly characterised 91 (65.5 %), incorrectly characterised 32 (23 %) and made no prediction for 16 polyps (11.5 %). SpR's correctly characterised 93 (66.9 %), incorrectly characterised 25 (18 %) and made no prediction for 21 polyps (15.1 %). GI Genius and Consultants agreed for 72 (51.8 %), disagreed for 40 (28.8 %) and at least one made no prediction for 27 polyps (19.4 %). GI Genius and SpR's agreed for 78 (56.1 %), disagreed for 27 (19.4 %) and at least one made no prediction for 34 polyps (24.5 %). First year Trainees in site one and one in site two correctly characterised 93 / 191(48.9 %) and incorrectly 60/191 (31.6 %)

Conclusions Our data corresponds with previously published studies. Interestingly, trainee characterisation was similar to both consultant and CADx predictions in our study. Both SpR's endoscopists are experienced endoscopists nearing the end of training scheme. There was a significant drop in the percentage of correctly diagnosed polyps in the first year trainees. [1–2]

Endoscopy 2024; 56: S1–S503

This suggests that CADx polyp characterisation may be useful in an early training phase, as it appears to be a reliable and consistent tool for diagnosis. A resect and discard strategy with CADx does not at present appear feasible.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP187 Digital Therapeutics and Chatbots: Assessing the Efficacy of Chat GPT and Google BARD in IBS Treatment Plans

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DOI 10.1055/s-0044-1783197

Aims Artificial Intelligence (AI) has notably transformed healthcare, especially in diagnosing and treating Inflammatory Bowel Disease (IBD) and other digestive disorders. Essential AI tools, such as ChatGPT and Google Bard, can interpret endoscopic imagery, analyze diverse samples, simplify administrative duties, and assist in assessing medical images and the automation of devices. By individualizing treatments and forecasting adverse reactions, these AI applications have notably enhanced the management of digestive diseases. Integrating AI technologies empowers patients to make knowledgeable choices by evaluating customized treatment alternatives.

Methods The study's objective was to evaluate the precision of two widely used Chat Bots, Chat GPT and Google BARD, in responding to queries related to medical management. Each bot was tasked with answering a series of questions, and the responses were scored on a 1-10 Likert scale, with 1 denoting high accuracy. To uphold impartial judgment, two unbiased assessors reviewed each bot's replies. The purpose of this research was to illuminate the competencies of these chatbots by systematically analyzing their performance in aspects of accuracy and dependability. Employing two evaluators and utilizing the Likert scale approach helped mitigate potential biases, corroborating the findings.

Results Our study compared the proficiency of Chat GPT and Google BARD in medical management. Chat GPT demonstrated superior performance, achieving 71 % accuracy as opposed to Google BARD's 39 % (p = 0.032) and 58 % versus 29 % in the reliability of medical information (p = 0.021). This research underscores the pivotal importance of accuracy and reliability in the creation of IBS chatbots. While Chat GPT showed commendable results, signifying its promise as a trustworthy resource, it also highlighted the need for ongoing research and advancement in this domain.

Conclusions AI has significantly reshaped healthcare, particularly aiding in diagnosing and managing IBD. ChatGPT and Google Bard are essential AI tools that analyze medical images, assess samples, and optimize tasks. Our research evaluated the precision and dependability of these chatbots in medical management. ChatGPT surpassed Google Bard, securing 71 % accuracy and 58 % in reliability of information. While ChatGPT showcases substantial potential as a reliable AI instrument in IBD management, the results also accentuate the continual necessity for exploration and advancement in this area.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP188 Utility of endoscopic follow-up after acute diverticulitis and risk of neoplasia: 10 years research

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DOI 10.1055/s-0044-1783198

Aims Evaluate the relevance of follow-up colonoscopy after an acute episode of diverticulitis (AD), considering that medical guidelines recommend this test to rule out a concomitant colorectal cancer (CRC) despite the low incidence in uncomplicated cases (UCAD).

Methods Retrospective observational study on admitted AD patients in a secondary level hospital between 2014 and 2023 analyzing a randomized sample of UCAD (Hinchey Ia) and all of the complicated cases (CAD) (Hinchey ≥ Ib). Advanced adenoma (AA) was defined as size of 10 mm or greater, villous and/or with high-grade dysplasia.

Chi square or Fisher's test was used to compare categorical variables; *t* test and Mann-Whitney to compare quantitative variables. Statistical significance was defined as $p < 0.05$. Analysis was performed using SSPS software.

Results Out of the 185 patients studied, 51.9 % were females with an average age 60.5.5 ± 13.1. UCAD patients were significantly older ($p = 0.01$); no significant gender difference was found ($p = 0.4$). Purulent peritonitis (Hinchey III) was the most frequent stage of CAD (40 %), and sigma the most common location for both types (74.2 % UCAD and 96.9 % CAD).

A total of 187 lesions were observed in 96 patients (51.9 %) during colonoscopies. Polyps and, more specifically, non-advanced adenoma were significantly found more frequently in UCAD (53.3 and 35.8 % respectively against 32.3 % and 12.3 % in CAD; $p = 0.003$ and 0.001); while CRC was more frequent in CAD (4.6 % against 0 % in UCAD; $p = 0.042$). No significant differences were found in colitis associated with diverticulosis, non-adenomatous polyps, nor AA in both types ($p = 0.131$, 0.099 and 0.722). A total of 20 patients (10.8 %) required endoscopic follow-up: 8 with advanced adenoma and the remaining 12 with more than 3 resected adenomas. [1–3]

Conclusions Advanced adenoma and colorectal cancer detection rate was higher in complicated acute diverticulitis; finding this difference significant for colorectal cancer. Advanced adenoma rate was higher than 4 % for both types of diverticulitis and, given that these lesions have the inherent ability to progress into cancer, colonoscopy is justifiable after any acute episode of diverticulitis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP189 Efficacy and Safety of Phlorloglucinol in the Treatment of Patients with Irritable Bowel Syndrome: Randomized Double-blind, Non-inferiority Trial, Compared With Pinaverium

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DOI 10.1055/s-0044-1783199

Aims Antispasmodics like phloroglocinol are widely used to manage irritable bowel syndrome (IBS) symptoms. However, the efficacy and safety of another antispasmodic, tiropramide, remain unresolved. We aimed to evaluate the efficacy and safety of tiropramide compared with phloroglocinol in patients with IBS.

Methods In this single center, randomized, non-inferiority trial, 72 patients with IBS (36 receiving pinaverium and 36 phloroglocinol)were randomly allocated to either pinaverium 50 mg or phloroglocinol 80 mg t.i.d (means 3 times a day) for 4 weeks. Primary endpoint was the mean change of abdominal pain from baseline assessed by Numeric Rating Scale for pain(NRS) score after 4 weeks of treatment. Secondary endpoints were the changes in abdominal pain from baseline at week 4 and in abdominal discomfort at weeks 4, using NRS scores, patient-reported symptom improvement including stool frequency and consistency, using symptom diaries, IBS-quality of life (IBS-QoL), and depression and anxiety, at week 4.

Results The NRS scores of abdominal pain at week 4, were significantly decreased in both tiropramide and octylonium groups, but the change from baseline did not differ between the 2 groups (difference, -0.31 mm; 95 % CI, -3.25-2.81; P = 0.561). Abdominal pain assessed using NRS scores, diaries, and IBS-QoL were also improved by both treatments, and the changes from baseline did not differ. The incidence of adverse events was similar in the 2 groups, and no severe adverse events involving either drug were observed. [1–5]

Conclusions Pinaverium is as effective as phloroglocinol in managing abdominal pain in IBS, with a similar safety profile.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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ERCP stones and PEP

26/04/2024, 16:45 – 17:45 **Science Arena: Stage 1**

MP190 Predictors of recurrent bile duct stone after clearance by endoscopic retrograde cholangiopancreatography

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Aims Endoscopic retrograde cholangiopancreatography (ERCP) is now the gold standard for the treatment of bile duct stones. However, recurrence stones is frequent after their complete removal by endoscopic treatment.
The aim of our study is to identify predictors of recurrent common bile duct (CBD) stones after ERCP

Methods The present study is retrospective, descriptive and analytic, including all patients who underwent ERCP for CBD stones between January 2008 and September 2023.
Recurrent CBD stone was defined as the finding of a stone at least 6 months after the initial ERCP in which complete stone extraction was performed.
Factors associated with recurrent CBD stones were studied by logistic regression analysis.
Statistical analysis was performed using Jamovi software.

Results Among 1151 patients who underwent ERCP for lithiasis pathology, 88 patients or 7.7 % had recurrent CBD stone.
Mean age of the patients was 64.5 + /-13.4 years, with extremes ranging from 22 to 94 years. Sex ratio (M/F) was 0.69, with a female predominance of 59.1 %. 20.5 % of patients presented with acute angiocholitis and 6.8 % with acute pancreatitis.
A periampullary diverticulum was found in 5.7 % of patients (n = 5).
In univariate analysis, the risk factors for recurrent CBD stone were: older age (OR :37; IC95 % : [10,7- 127,2] ; p < 0,001), female gender (OR :9,9 ;IC95 % : [4,49-22,04] ; p < 0,001), CBD diameter > 15 mm (OR : 7,36 ;IC95 % : [5,51-9,8] ; p < 0,001), presence of angiocholitis (OR : 2.06 ;IC95 % : [1,12-3,8] ; p = 0,02), number of CBD stones (OR :8,61; IC95 % : [6,51-11,39] ; p = 0,018), size of CBD stones (OR :2,51 ;IC95 % : [1,43-4,39] ; p = 0,001), while enlargement EST (OR :0,18; IC95 % : [0,08-0,44] ; p < 0,001) was a protective factor.
After multivariate analysis, and adjusting for the factors studied, only older age (OR:1.96; CI95 %: [1.94-2.93]; p = 0.001), number of CBD stones (OR: 1.99; CI95 %: [1,2-3,4] ; p = 0,037) and size of CBD stones (OR :4,06; IC95 % : [3,51-6,72] ; p = 0,003) were risk factors, and enlargement EST (OR :0,31; IC95 % : [0,11-0,85] ; p = 0,024) was protective factor.

Conclusions In our study, the predictive factors for recurrent CBD stones were advanced age, the presence of impaction and a large stone.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP191 Risk factors for failure in complete clearance in patients with extrahepatic biliary stone diasease after a first ERCP with incomplete clearance and a temporary plastic stent placement

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Aims Biliary duct stones cause an important morbidity, ERCP is the gold standard, however it fails in 10 % of cases (complex biliary duct stones), in which case a temporary biliary stent is placed. Main possible approaches in these context are: scheduled stent exchange (not clear for how long is it suitable, multiple ERCP), Intraductal litotripsy (expensive, low availability) and Surgery (the most effective, the highest adverse event rate). The choice is not easy with this patients, therefore we conducted this study to seek for risk factors present at the index ERCP, that could help us predict the longterm result with the first-line treatment, this could help us make a choice for early referral to a definitive treatment in some patients.

Methods We conducted a retrospective cohort study in a tertiary referral center in Mexico City, identified patients with complex bile duct stones with a failure in complete clearance and stent placement, and had at least a second ERCP. We collected data from first and second ERCP such as age, gender, prior

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colecistectomy, total bilirubin, access to bile duct, dile duct angle and measures, nomber and features of stones, stone/distal bile duct ratio, use of large balloon dilatation or mechanic litotripsy). We used chi-square test for categorical variables; Student-T or Mann Withney-U depending on the distribution; and for those most significant in the bivariate analysis we peformed a logistic regression considering $p < 0.05$ as statistically significant, and then a ROC curve for the quantitative significant variable. We also performed a paired T test for anatomical parameterts before and after the stent [1–9].

Results 6750 ERCP were analyzed from Jan/2019-Sept/23, 112 met our inclusion criteria. The overall failure for complete clearance in the secodn ERCP was 58 % (65 patients). In the general characteristics of our population: 66 % were women (75), median age was 62 (IQR 26), 77 % (88) had previos cholecistectomy, bile duct (BD) diameter was 18.5 mm (± 4.6), distal bile duct/stone ratio 0.48 (± 0.14), most were round/oval stones (42 %), 46 % had a single stone, 17 % two and 37 % had three or more, 30 % (34) were in the main hepatic duct, bile duct angle was 148º (IQR 12), large balloon dilatation (EPLBD) was used in 37 % in first ERCP, and mechanical litotripsy in 15 %, interval from first to second ERCP was 13 weeks (IQR 3). In the bivariate analysis we found only stone diameter as statistically significant with p 0.001, we peformed logistic regression for those $p < 0.25$ and stone diameter had p 0.04. The ROC curve had a AUC 0.68, a cut-off value of 18 mm with a Sensibility of 67 % and specificity of 69 %. Also, we found a statistically significant change in stone diameter ($p = 0.01$) and bile duct diameter ($p = 0.01$) after a temporary plastic stent placement.

Conclusions Stone size remains the most powerful predictor in bile duct stone disease ERCP outcome, opposed to our hypotesis we could not find distal BD/Stone ratio and use of EPLBD as stadistically significant, prospective trials need to be conducted in this area for more solid data.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP192 Predictive factors of spontaneous biliary clearance and unnecessary ERCP in patients with choledocholithiasis

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Aims ERCP is associated with a non-negligible rate of adverse events (up to 10 %) and should be reserved for procedures with therapeutic intent. Choledocholithiasis is the most common indication, however, if there is spontaneous migration of stones, ERCP becomes unnecessary. The incidence of this occurrence and the predictive factors are subject to discussion. The aim of this study was to evaluate predictive factors for spontaneous migration of CBD stones, in patients diagnosed with CBD stones on imaging and native papilla, which correlate with unnecessary ERCP.

Methods Retrospective study including patients with native papilla who underwent ERCP after imaging diagnosis of choledocholithiasis, between January 2020 and June 2023, in a center with a high volume of ERCP (> 400/year). The following data were recorded: patient characteristics, laboratory and imaging tests, time between the diagnosis of choledocholithiasis and ERCP, data relating to ERCP and complications. Patients were divided into 2 groups (presence or absence of CBD stones in ERCP), and univariable and logistic regression analyses were performed to determine independent factors of unnecessary ERCP.

Results 334 patients were included (mean age 71.7 years; 60.8 % female): 256 (76.6 %) with CBD stones in ERCP and 78 (23.4 %) without. The presentation with pancreatitis (OR 2.302, $p = 0.02$) and acute cholangitis (OR 0.167; $p < 0.001$) were different between the groups, but only pancreatitis proved to be an independent factor for spontaneous biliary clearance. Regarding laboratory tests, only the bilirubin value immediately prior to ERCP revealed significant differences between the groups (2.81 vs. 0.83 mg/dL; $p < 0.001$), with bilirubin < 2 mg/dl being a predictor of unnecessary ERCP (OR 8.554; $p < 0.001$). About imaging findings, the presence of stones with dimensions ≤ 5 mm (OR 18.2; $p < 0.001$) and a CBD diameter < 10 mm (OR 2.650; $p < 0.001$) proved to be predictive factors for ERCP without CBD stones. Of the patients undergoing ERCP within 7 days of diagnosis, 16.3 % did not have choledocholithiasis, compared to 37 % when ERCP was performed after 7 days ($p < 0.001$). This cut-off (ERCP > 7 days after diagnosis) confirmed to be a predictor of unnecessary ERCP (OR 2.743, $p < 0.001$). There were 5 pancreatitis (4 mild and one severe) in the group of patients without evidence of choledocholithiasis on ERCP.

Conclusions In patients with predictive factors for spontaneous clearance of CBD stones, such as biliary pancreatitis, bilirubin prior to ERCP < 2 mg/dL, stones ≤ 5 mm, CBD < 10 mm, and diagnosis > 7 days, especially if combined, an additional test with high sensitivity (such as endoscopic ultrasound) should be considered to minimize unnecessary ERCPs and possible complications.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP193 Durability of plastic pancreatic stents in post-ERCP pancreatitis prophylaxis

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DOI 10.1055/s-0044-1783203

Aims Plastic pancreatic stents are one of the most effective methods for decreasing the incidence of post-ERCP acute pancreatitis.

In our center, the stent is usually removed by gastroscopy one week after placement and without radiological control.

The aim of our study is to verify how many plastic pancreatic stents are absent in the endoscopy according to size and time after insertion, as well as finding the best strategy for their removal.

Methods Descriptive and retrospective study, including patients which received a post-ERCP acute pancreatitis prophylactic stent insertion between January 2014 and December 2022.

We are using an Advanix type plastic pancreatic stents from Boston Scientific. Length and caliber are at the endoscopist's choice.

Results 84 plastic pancreatic stents were placed. Average age was 69.44 years, with a 63.09 % being more than 65 years old and minimal male predominance (51.19 %).

The data on the stent sizes used are shown in Figure 1, being the 4 Fr x 5 cm and 5 Fr x 5 cm stents the most frequently used. There were 2 cases in which it was not possible to know the stent size.

All data on stent permanence or absence according to the time passed until the endoscopy are shown in Figure 2. We can observe that the proportion of migrated plastic pancreatic stents increases after 15 days.

There were 13 stents not removed in our center because the patient came from another center, had a terminal oncologic disease or died. [1–4]

There were no complications with the withdrawal endoscopy in any case.

Figure 3 shows data on the plastic pancreatic stents absence or permanence according to the time passed until the endoscopy and their caliber, showing that larger caliber stents remaining longer.

Conclusions According to our data, there is an inversely proportional relationship between stent caliber and the probability of migration, with larger caliber stents remaining longer and the proportion of migrated plastic pancreatic stents increasing after 15 days.

Our data suggest the need for regular endoscopic removal after radiological control, which can be deferred until 15 days later, when a higher proportion of migrated plastic pancreatic stents can be observed.

Studies of a larger scope are required to verify our results.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP194 Laparoendoscopic rendezvous versus ERCP in the management of cholecystocholedocholithiasis: a cohort study

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Aims Biliary stones are an endemic condition, affecting 20 % of the population. In up to 20 % of cases, gallstones are associated with common bile duct stones (CBDS), which may cause symptoms and complications. The management of CBDS is still controversial. The aim of our study is to compare the laparoendoscopic rendezvous (RV) with endoscopic retrograde cholangiopancreatography (ERCP) to treat cholecystocholedocholithiasis using a large cohort of patients.

Methods All patients who underwent laparoendoscopic RV or ERCP between January 2000 and August 2023 were identified from the local registry of Pescara Hospital. All patients were diagnosed preoperatively by MRCP or EUS. The primary endpoint was the rate of clearance of the CBD. Secondary endpoints were adverse events and the length of stay. Univariate and multivariate logistic regression adjusted for age and gender were used to investigate the association between treatment and outcomes.

Results A total of 706 patients were included. Of those, 228 were treated with RV and the remaining 478 with ERCP. When compared to patients treated with ERCP, those treated with RV were more likely to achieve complete resolution (87 % vs 68 %, P < 0.001) and this association was confirmed after multivariate adjustment (OR 2.32, 95 % CI 1-48-3.72). No differences were observed between the two groups in terms of postprocedural complications such as pancreatitis (0.5 % vs 2.4 %, P = 0.2), bleeding (3.2 % vs 2.4 %, P = 0.8) and perforation (0.5 % vs 0 %, P = 0.9). As expected, the length of stay was longer in the RV group (MD 2.8 days; 95 % CI 1.9-3-6).

Conclusions In this historical cohort study, we demonstrated that RV is **highly effective**, is associated with a higher rate of complete biliary clearance at the expense of a slightly longer hospital stay, which indeed includes cholecystectomy thus reducing overall costs. Moreover, RV is a **safe** procedure, the rate of complications is low and similar between the two groups. Finally, we can speculate that RV is **more comfortable** for patients, having cholecystectomy and CBD clearance in one session rather than two, and it is **quicker**, avoiding the cannulation trouble. These results support the adoption of the RV approach especially in low ERCP volume centers.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP195 Prospective observational study of a novel self-assembling peptide hemostatic gel for initial hemostasis in endoscopic sphincterotomy-related hemorrhage

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Aims Bleeding is recognized as one of the most commonly encountered adverse events associated with endoscopic sphincterotomy (EST). Although various techniques for endoscopic hemostasis have been reported, the treatment choice is left to the endoscopist. A novel self-assembling and fully synthetic hydrogel peptide (hemostatic gel) is currently developed as a hemostatic agent. This study aimed to evaluate the feasibility and effectiveness of the application of hemostatic gel to EST-related hemorrhage.

Methods Between September 2021 and August 2023, 202 patients who were scheduled to undergo EST were prospectively enrolled in this study. Hemostatic gel was used only when bleeding occurred during EST. Patients without EST-related hemorrhage were assigned to the control group, and patients with EST-related hemorrhage were assigned to the hemostatic gel group. Patients' characteristics and clinical course were compared between the two groups. EST-related bleeding was defined as bleeding immediately after EST and the procedure could not be continued because of poor visibility by blood, or bleeding for more than 5 min caused by device contact during the same session as the EST.

Results EST was performed in 188 of 202 patients, and EST-related bleeding occurred in 20 patients using hemostatic gel, with a median age of 76.0 years in the control group and 76.5 years in the hemostatic gel group. 45 patients in the control group and 4 patients in the hemostatic gel group receiving antithrombotic therapy were included in this study. There were 114 cases of benign diseases and 54 cases of malignant diseases in the control group, while there were 9 cases of benign diseases and 11 cases of malignant disease in the hemostatic gel group. The details of the procedure [EST only/stone removal/plastic stent placement/self-expandable metallic stent (SEMS) placement] were 4/86/54/24 cases in the control group and 1/5/10/4 cases in the hemostatic gel group. There were 50 cases of parapapillary diverticulum in the control group and 8 cases in the hemostatic gel group. Hemostasis was achieved using hemostatic gel alone in all but one of the 20 patients in the hemostatic gel group without additional hemostatic treatment. One case in which hemostasis was not achieved with hemostatic gel was of spurting bleeding, whereas hemostasis was confirmed by SEMS placement. The incidence of adverse events was 10.1 % in the control group and 10.0 % in the hemostatic gel group. Adverse events in each group (control/hemostatic gel) were pancreatitis (6/2), cholangitis (6/0), post-procedural bleeding (3/0), and others (2/0). There were no statistically significant differences in patients' characteristics, procedures, and rates of adverse events.

Conclusions The application of hemostatic gel for EST-related bleeding is a feasible and safe hemostatic method. Hemostatic gel may be an option for initial hemostasis for EST-related bleeding. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP196 Prevalence and predictors of Unnecessary Endoscopic Retrograde Cholangiopancreatography in the treatment of common bile duct stones

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Aims One of the main approaches for treating concurrent gallstones and choledocholithiasis involves a two-stage procedure, including endoscopic retrograde cholangiopancreatography (ERCP) followed by cholecystectomy. However, negative findings in ERCP due to stone migration is a frequent circumstance. In this study, we aim at evaluating the rate and precdictive factors of unecessary ERCP.

Methods We conducted a retrospective analysis of patients undergoing ERCP for CBDS in a 5-year period. CBDS diagnosis was confirmed through appropriate imaging methods conducted before the ERCP procedure. Cases where biliary cannulation was unsuccessful were excluded from the study.

Results We included 475 patients with an average age of 62 ± 19,2 years and a male-to-female ratio of 0.5. Diagnosis of CBDS was obtained by US in 147 patients (30,94 %), CT in 142 (29,89 %), MR in 181 (38,10 %), and EUS in 4 (0,84 %). ERCP was performed within a time intervall of 24.08 ± 17.69 days. Of 475 enrolled patients, 321 had CBDS demonstrated by ERCP. Hence, the rate of unecessary ERCP was 32,42 %. In multivariate analysis by binary logistic regression, five factors were found as independent predictors of unnecessary ERCP: Age ≤ 65 years ($p = 0.046$), solitary stone ($p < 0.001$), stone size ≤ 5mm ($p = 0.001$), impacted stone ($p < 0.001$), and a delay between imaging and ERCP > 1 month ($p = 0.011$). Detection of CBDS by ultrasonography and dilated common bile duct(> 6mm), were observed to be independent risk factors associated with the existence of CBDS ($p = 0.003$ and $p = 0.024$ respectively). [1–5]

Conclusions In our series, we found that ERCP was unnecessary in nearly one-third of the patients. This high rate of unnecessary ERCP was associated with single and small stones < 5 mm which present a high risk of migration.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP197 Comparative carbon footprint and environmental impact of biodegradable pancreatic stent versus conventional plastic stent usage in ERCP

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Aims Plastic pancreatic stents are widely used for the prevention of post-ERCP pancreatitis (PEP). However, these patients require further care post-procedure to confirm spontaneous stent passage and repeat endoscopy for stent removal if migration has not occurred (in approximately 20 %). The development of a 6F biodegradable (BD) stent (Archimedes, Q3 Medical, Dublin, Ireland), which can be used for the same indications, removes the need for additional post-procedure care. This study aimed to evaluate the additional carbon footprint related to the environmental impact of the care pathway using plastic (non-BD) pancreatic stents compared with using BD stents.

Methods A retrospective analysis was performed of all patients across 2 tertiary centres who had either plastic or BD prophylactic pancreatic stents inserted over 3 years. Their episodes of care for follow up x-rays and endoscopy were retrieved from medical records. Conservative estimates of potential carbon dioxide equivalent (CO_2e) of travel, imaging and endoscopy were extrapolated from recent scientific literature. Distances travelled for episodes of care were calculated. The carbon cost of car travel was 0.138kg/km travelled, as published by Department of Transport. The CO_2e for x-rays was 0.5kg (McAlister, 2023). The CO_2e was calculated as 10.4kg per procedure (Henninger, 2023). The carbon footprint of the index procedure was assumed to be the same and the impact of the choice of the stent itself excluded from calculations.

Results 174 patients received pancreatic stents for PEP. 12 patients who had planned repeat ERCPs for clinical reasons were excluded. Thus, 162 patients were included in the study (79 female (49 %), mean age 52 years [range 3 – 96]. 94 patients received BD stents. No BD stent patients required follow up imaging or endoscopy. Of the plastic stent patients, 62 had one repeat x-ray, whilst a further 6 had a second x-ray to assess for stent migration and 15 required repeat endoscopy to retrieve the stents. As a result, the rate of retained plastic pancreatic stents was 22.1 %.The mean CO_2e for travel for post-plastic stent care per patient was 15.24kg per patient, based on car travel, accounting for 84.3 % of the mean excess footprint of plastic stent care, which was 18.08kg CO_2e. The total CO_2e for plastic stent follow-up care was 1.229 tonnes. For BD stent patients there was no additional CO_2e impact beyond the index procedure. The environmental impact of the 77.9 % of non-biodegradable stents which pass spontaneously (and therefore into the sewage system) was not costed. [1–3]

Conclusions In this study, plastic stent care for 68 patients incurred an additional 1.229 tonnes CO_2e. This is the equivalent of 8935.9km (5,552.5 miles) driven in an average car. BD pancreatic stents placed for PEP eliminate the need for post-procedure follow-up care and in turn reduce carbon footprint and non-recyclable waste generation. Uptake of new technologies such as BD stents may therefore have a meaningful role in delivering more environmentally sustainable healthcare.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP198 Factors associated with difficult biliary stones in a tertiary health center in South America

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Aims To evaluate factors associated with the development of Difficult biliary stone (DBS) based on a cohort of patients treated in a reference hospital in Colombia.

Methods A case-control nested in a cohort study was performed. Controls were defined as Common Biliary Stone (CBS) which represented patients with successfully extracted stones by ERCP (endoscopic retrograde cholangiopancreatography) associated with balloon or basket. DBS were cases defined by unsuccessful bile duct clearance by ERCP or Disproportion between the disproportion between the size of distal bile duct and the stone (DSDBDS), with a difference ≥ 2 mm. Univariate and multivariate analysis were performed to obtain DBS risk factors. Institutional research committee approved this study (FM-CIE-1088-22)

Results 146 DBS and 282 CBS were included. Pre- ERCP differences were found on age (69 vs 57, p < 0,05), Charlson index (3 vs 0, p < 0,05), pancreatitis (6,8 vs 16,7, p > 0,05) and biliary duct diameter on ultrasonography (12 vs 10 mm, p < 0,05). ERCP differences were found on larger stone diameter (6 vs 14, p < 0,05), multiple stones (42,5 vs 18,8, p < 0,05), DSDBDS 67,8 vs 0, p < 0,05). Logistic regression multivariate analysis show an association between DBS and Charlson index (OR 1,27, p < 0,05), pancreatitis (OR 0,15, p = 0,06), biliary duct diameter (OR 0,87, p = 0,07), larger stone diameter (OR 1,52, p < 0,05, impacted biliary stone (OR 14,7, p < 0,05), biliary duct stenosis (OR 83,1, p < 0,05) and DSDBDS (OR 115,9, p < 0,05)

Conclusions Charlson Index, large stone diameter, number of stones, impacted biliary stone, biliary duct stenosis and DSDBDS are associated with DBS presence. Biliary duct stenosis (and probably pancreatitis) are possibly protective factors for DBS Known impacted biliary stone, biliary duct stenosis and DSDBDS should induce resource allocation for DBS. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP199 Endoscopic papillary large balloon dilation in the treatment of difficult choledocholitiasis: a nationwide survey from Italian Society of Digestive Endoscopy (SIED)

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DOI 10.1055/s-0044-1783209

Aims Choledocholithiasis is actually the main indication for performing endoscopic retrograde cholangio-pancreatography (ERCP) for benign pathology. Among these, approximately 10 % are classified as difficult lithiasis, requiring advanced methods and often more than one procedure to reach complete clearance of the common bile duct (CBD). Based on the guidelines, pneumatic papillary dilation with a large balloon, also known by the acronym DASE (Dilation assisted stone extraction) is indicated as the first approach in cases of macrolithiasis or multiple lithiasis. However, its application still appears to be not widespread, at least among Italian biliary-pancreatic endoscopy centers.

Methods To better know the current situation, the Italian Society of Digestive Endoscopy (SIED) has promoted and analysed the data collected from an online survey on the treatment of difficult CBD stones with the DASE technique, consisting of 22 questions divided into three macro areas (operator experience/ CBD incidence / DASE knowledge).

Results From January to April 2023 one-hundred and nine Italian endoscopists (33 female) filled -in a 22 items questionnaire (table 1). Of those, 54 % carried out endoscopic activities for 15 years or more and 94 % regularly were performing ERCP. The incidence of difficult choledocholithiasis was reported in 5-15 % of cases of CBD stone overall.

Regarding DASE/EPLBD, 68 % (60/88) of endoscopists declared to adopt this technique as the first choice for difficult CBD and 43 % of operators usually perform maximal papillosphincterotomy before DASE, instead of 56 % that prefer a limited PST.

The presence of undetermined stricture of the terminal CBD represented the main limitation to carry out DASE technique (in 58 of 88 responses), followed by the appearance of paravaterian diverticulum in 30 % (26/88).

It is interesting to note that for a third of the operators (25/88), DASE technique was effective in less than 50 % of the patients treated. Moreover, this method was described as safe by four out of five operators, who reported complications in less than 5 % of patients.

Conclusions In conclusion, the survey highlighted how the level of knowledge of the DASE/EPLBD technique among Italian endoscopists has significantly increased over the years. The high efficacy and safety, together with the easy application and low costs, have significantly contributed to its spreading, representing the first choice in case of difficult CBD stone.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Training, competence and quality in endoscopy

27/04/2024, 09:00 – 10:00 **Science Arena: Stage 1**

MP200 Two-handed vs four-handed colonoscopy in terms of quality

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DOI 10.1055/s-0044-1783210

Aims We want to compare colonoscopy in our hospital with a four-handed technique (i.e., with nursing assistance) to a two-handed technique (i.e., with the colonoscope manipulated only by the endoscopist), regarding three quality criteria: cecal intubation rate (CIR), adenoma detection rate (ADR) and complication rate (CR).

Methods For this purpose, 109 colonoscopies performed in our hosiptal by 4 endoscopists with Qualiscopy certificate, with different indications, were registered on forms, and their features were noted, including whether they were performed with two or four hands. Subsequently, we performed a statistical analysis of these data.

Results When the variables of both groups were compared, the following results were observed:

CIR was 100 % in both groups.

Endoscopy 2024; 56: S1–S503

The ADR was 40.5 % in the two-handed group and 26,4 % in the four-handed group; the difference was not statistically significant.
The CR was 4.7 % in the two-handed group and 7.7 % in the four-handed group, the difference was not statistically significant.
Conclusions In conclusion, ADR and CR were different between both groups, but there was not any statistically significant difference seen. In regard to CR; there were not any differences seen between these two groups (it was 100 % in both of them).
For the moment, with our results, we cannot conclude that either of the two colonoscopy techniques is superior in terms of quality or safety.
Conflicts of interest Authors do not have any conflict of interest to disclose.

MP201 The learning curve of achieving competency in emergency endoscopy in upper gastrointestinal bleeding

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DOI 10.1055/s-0044-1783211
Aims The management of upper gastrointestinal bleeding has seen rapid advancements with revolutionizing innovations. However, insufficient data exist on the necessary number of emergency endoscopies needed to achieve competency in performing hemostatic interventions.
Methods We retrospectively analyzed all esophagogastroduodenoscopies with signs of recent hemorrhage performed between 2015 and 2022 at our university hospital. A learning curve was created by plotting the number of previously performed esophagogastroduodenoscopies with signs of recent hemorrhage against the treatment failure rate, defined as failed hemostasis, rebleeding and necessary surgical or radiological intervention.
Results The study population included 787 cases with a median age of 66 years. Active bleeding was detected in 576 cases (73.2 %). Treatment failure occurred in 225 (28.6 %) cases. The learning curve showed a marked decline in treatment failure rates after nine esophagogastroduodenoscopies had been performed by the respective endoscopists. A second decline was observed after 51 emergency procedures. Endoscopists with experience of < 10 emergency procedures had higher treatment failure rates compared with endoscopists with > 51 emergency esophagogastroduodenoscopies performed ($p = 0.039$) or consultants ($p = 0.041$).
Conclusions Our data suggests that a minimum number of nine esophagogastroduodenoscopies with signs of recent hemorrhage is necessary before endoscopists should be considered proficient to perform emergency procedures with on-demand supervision. Endoscopists should be considered competent to perform emergency procedures without supervision after a minimum of 51 hemostatic procedures. Implementing recommendations on minimum numbers of emergency endoscopies in education programs of endoscopy trainees could improve their confidence and competency in managing acute upper gastrointestinal bleeding.
Conflicts of interest Martin Bürger obtained consulting fees from Janssen and travel support from Pfizer. All other authors declare that they have no conflict of interests regarding this manuscript.

MP202 A Simple Endoscopy Training and Assessment Box – Development and Validation

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DOI 10.1055/s-0044-1783212
Aims Tools for teaching and practice of endoscopic skills outside of the clinical procedure have previously been in complex and expensive computer-based simulators. Assessment of endoscopy skills and competency is currently by achievement of Key Performance Indicators (KPIs) such as number of procedures attempted and caecal intubation rate as well as subjective procedural skills assessments. [1]
The aim is to evelop a training tool with a reproducible and sensitive scoring system that demonstrates meaningful improvement which aligns with expertise and known KPIs for endoscopy training.
Methods Physical design and development of equipment, reviewed by convenors of national Train the Trainers programme and regional endoscopy training lead. Development of robust scoring system which differentiates level of endoscopic skill and allows assessment of progression through early years of training. Assessment comprises four separate tasks developed to focus on techniques needed to perform endoscopic procedures and interventions; tip control, torque, suction, retroflexion.
Trainees and experienced endoscopists across four centres were assessed using the training box (n = 65). Serial assessments of trainees were also performed at least 6 months apart (n = 15). We compared assessment scores with number of colonoscopies performed to date (1-50, 51-100, 101-200, 201-300, 301-500, > 500), caecal intubation rate as well as year of endoscopy training.
Results There is an association between higher training box assessment scores and level of endoscopist training. Trainee scores improve with repeat assessments over the course of their training. Scores improve most in early phase of training then plateau towards the stage of endoscopy competence (as defined by regional accreditation group). Known 'trainees in difficulty' can be identified as outliers in the scoring graph.
Conclusions This standardised and repeatable training box assessment can be used as an objective measure to aid in the assessment of endoscopy competency and progress in training. This data can be adapted to be relevant to the endoscopy KPIs specific to training in different regions.
Conflicts of interest Authors do not have any conflict of interest to disclose.
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MP203 Desaturations and adverse events among unselected ERCPs – incidence, risk factors, and adequate documentation from a quality control perspective

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DOI 10.1055/s-0044-1783213
Aims This study aimed to assess the rate of desaturations among NAPS (nurse-assisted propofol sedation)-ERCPs. Also, overall awareness of adverse events (AEs) as measured by documentation was assessed.
Methods In this prospective, quality-control cohort study all ERCPs performed in a 3-4-month period were included. Endoscopy nurses documented starting SpO2, desaturation events, and/or measures taken to correct hypoxemia. The electronic health record was reviewed for other AEs, outcomes, and risk factors. Endoscopists are always required to document AEs of ERCPs. All definitions of AEs were based on the 2020 ESGE guidelines for ERCP-related AEs.
Results Of 233 ERCPs between January 11th through May 12th 2023, 232 were included, 218 (94 %) were conducted using NAPS, and of these in 199 (91.3 %) adequate desaturation AE data was available. Mean age of patients was 67.9

(SD 15.8) years, 53.2 % were female, median ASA status was 2 (IQR 2;3), the median Charlson Comorbidity Index (CCI) was 4 (IQR, 2;7), all-cause 30 day mortality was 5.5 %. Most (86.8 %) NAPS procedures were started on 2 liters O2 flow/min, propofol mono-sedation was used in 98.2 %, 23.4 % were emergency procedures. A desaturation occurred in 22.6 % (n = 45) of procedures, and 28.1 % (n = 56), when including interventions performed for deoxygenations. Risk factors for desaturations were higher BMI (p < 0.01), increasing ASA status (p < 0.01), and snoring (p < 0.01), while age, CCI, smoking, procedure length or type (emergency vs. elective), propofol dose/kg, and hemoglobin, or CRP levels were not. The most common other AEs were hypotension (40.1 %), hypertension (11.2 %), and intraprocedural bleeding (9.1 %). Other recorded AEs were post-ERCP pancreatitis (3.9 %), post-ERCP Cholangitis (1.7 %), and cardiopulmonary resuscitation (0.4 %). Documentation of AEs by endoscopists (or other treating physicians) was exceptionally low. Only 22.2 % of post-ERCP pancreatitis, 19 % of intraprocedural bleeding, 20 % of desaturations, 2.2 % of hypotensive, and 0 % of hypertensive events were officially recorded/documented. Mortality (i.e. 30-day all-cause mortality) was recorded 0 % of the times – of note, on detailed case review no cases were likely linked to the procedure. All-cause 30-day mortality was significantly higher in the desaturation group (10.7 % vs. 2.8 %, p = 0.0313), patients were also significantly more comorbid (CCI 9 vs. 4, p < 0.01), while hypotension was not associated with mortality (p > 0.05).

Conclusions Sedation related events are common and, more importantly, desaturation is statistically significantly associated with 30-day mortality. Possibly, patients with desaturation events, being also considerably sicker, should be monitored more closely postinterventionally. However, as indicated by our results, awareness of complications by endoscopists and physicians is very low and likely underappreciated and underreported outside of trials or automatic acquisition systems in electronic health records. This may impact patient safety and endoscopists´ training in the context of inaccurate perception and imprecise feedback.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP204 Impact of advanced energy platform on health economics: a pilot value-based procurement explorative analysis

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DOI 10.1055/s-0044-1783214

Aims When indicated Speedboat -Endoscopic Submucosal Dissection/S-ESD is a novel alternative endoscopic procedure that uses innovative modalities to safely and effectively remove pre-cancerous and suspected cancerous complex lesions in the colon, in turn removing the need for surgical interventions and the associated complications, bed stays, resources and costs to the Trust/hospital

Methods The aim of this value-based procurement pilot study was to look into the health economic aspect of the S-ESD and surgery approaches. We measured the outcomes on procedural times, hospital length of stay, the need for follow-up hospital visits, the patient pathway and release capacity and costs. Descriptive statistics summaries (mean and standard deviation) of the above variants. Trust's Patient-Level Information and Costing System (PLICS) at each patient level was used to analyse all activities based on the Trust's actual costs, using NHS England's Approved Costing Guidance (ACG).

Results 1,000 patients treated for colorectal lesions, have been analysed (130 of those being S-ESD patients) from January 2018 to March 2022. East Kent Hospitals University NHS Foundation Trust (EKHUFT) has produced a dataset of financial and non-financial information. These patients were subject to S-ESD and Surgical procedure. The final evaluation tool enables us to quantify cost savings and productivity gains due to the use of S-ESD compared to surgical procedures. Specifically, the financial and non-financial findings highlighted: i) 25 % reduction of theatre time from average 198 minutes to 149 minutes, ii) 87 % reduction of length of stay from average of 8.39 days (of which 0.72 intensive care unit/ITU days) to 1.07 days (of which 0.01 ITU days, ii) 38 % reduction of theatre procedure cost from £4.5k to £2,8k, iv) 94 % reduction of accommodation cost from £3.2k to £0.2k, v) 63 % reduction of admission cost from £8.0k to £3.0k, vi) 59 % reduction over a 1 year period a cost from £8.6k to £3.5k. [1]

Conclusions This explorative analysis of EKHUFT financial modelling has demonstrated preliminary efficiency benefits through reduced length of stay and improved theatre efficiency have released net benefits of £671k for the 130 S-ESD procedures, which equates to £5.2k per patient. Using this PLICS dataset, a matched pairs propensity analysis is now warranted to ratify these observed cost saving findings.

Conflicts of interest Creo Medical Consultancy Agreement

References

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MP205 Female gastroenterologists report mastering endoscopic skills later and are less likely to start a family – a regional survey

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DOI 10.1055/s-0044-1783215

Aims We aimed to evaluate differences in clinical and academic training and positions between male and female gastroenterologists.

Methods We distributed a web-based survey under the auspices of national gastroenterology societies to physicians who have completed their training and are currently working at the field of gastroenterology in three Balkan countries – Serbia, North Macedonia, and Montenegro.

Results The questionnaire was sent to 317 physicians, while a total of 132 questionnaires were filled out, and 125 included into the analyses. The overall response rate was 41.64 %. More than half of respondents were women (n = 70, 56 %). The proportion of male physicians having children was higher compared to females, which was of statistical significance (92.7 % vs.77.1 %, p < 0.05). Women have in general reported mastering endoscopic procedures later in clinical training, when compared to males. There was no difference in age and distribution of marital status, clinical training, current employment, narrow field of interest, involvement in the field of advanced endoscopy and chief positions between the two groups. No difference was noted in the self-assessment scales regarding performing and teaching endoscopies, average time of performing endoscopies, median of years teaching endoscopy, and distribution of respondents involved in teaching endoscopy between the sexes (p > 0.05).

Conclusions Gender inequity exists in the field of gastroenterology, especially during the clinical training. Women are especially vulnerable during the training period because training years coincide with the expected childbearing age, and are less likely to start a family compared to their male colleagues.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP206 "AIG-AGREE Modification: Redefining Adverse Event Assessment in Gastrointestinal Endoscopy with Economic Perspectives"

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DOI 10.1055/s-0044-1783216

Aims Endoscopy is crucial for managing gastrointestinal diseases. This study utilises AGREE, a validated scale, for adverse event classification, allowing performance comparison across endoscopy services. Our aim is a clinical audit of gastrointestinal endoscopy complications, with a distinctive focus on integrating the economic impact on patients within the AGREE classification.

Methods This prospective observational study, conducted at the Asian Institute of Gastroenterology, Hyderabad, India, from July 1, 2021, to December 31, 2021, includes all patients undergoing diagnostic or therapeutic endoscopic procedures. Adverse events, defined as outcomes hindering planned procedures or deviating from standard post-procedural courses, were categorized using American Society of Gastrointestinal Endoscopy (ASGE) and AGREE classifications. The AGREE classification was uniquely improvised to incorporate the economic impact of complications on patients. (NCT05228353).

Results A total of 42,471 endoscopic procedures were performed during six months from 1st July 2021 to 31st December 2021. During the study period, a total of 218 adverse events were identified. Of these, 180 were classified as AGREE grade I or II complications, while 38 were categorized as AGREE grade III – V complications. The analysis revealed a positive correlation (Pearson correlation coefficient = 0.78; $P < 0.01$) between the grades of adverse events in the AGREE classification compared to the ASGE classification. The modified AGREE classification, referred to as AIG-AGREE, introduced a unique approach by incorporating a suffix denoting the financial burden on the patient. This modification divided the economic impact into five scales, namely α, β, γ, δ, and ε, based on multiples of the baseline amount.

Conclusions AIG-AGREE modification stands as a pioneering effort that highlights the importance of considering economic factors in the evaluation of adverse events in gastrointestinal endoscopy. Future studies could explore the applicability and generalizability of the AIG-AGREE modification in diverse healthcare settings and populations.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP207 Coordinated multicentre gastroscopy immersion training accelerates skill acquisition and time to certification – results from the Northern Endoscopy Training Academy in UK

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Aims In Northern England, a multicentre regional endoscopy training initiative – the Northern Endoscopy Training Academy (NETA) – was established in September 2022 and provides novice gastroscopy trainees with a 4-week immersion block of 20 dedicated training lists (DTLs) at one of four immersion centres within the first 20 weeks of beginning training, plus regular weekly DTLs at their hospital site until they achieve criteria for certification. Our aim was to measure the impact on skill acquisition and time to achieve minimum KPIs for JAG certification [1].

Methods JETS endoscopy e-portfolio data were compared between an immersion group consisting of 5 gastroscopy trainees receiving an immersion block plus weekly DTLs, and a non-immersion group of 5 gastroscopy trainees who received only weekly DTLs. D2 intubation rate, unassisted procedure rate and DOPS assessed competency were measured at 4 week intervals during the first 20 weeks of training to capture progression. The time interval between first gastroscopy procedure and JAG gastroscopy certification was recorded for the immersion group and compared to historic non-immersion groups from 2019 and 2021.

Results During the first 20 weeks of training, the immersion group completed an average of 181 procedures and the non-immersion group completed 88 procedures.

At each 4 week interval, the D2 intubation rate at weeks 4, 8, 12, 16 and 20 for immersion group was 75 %, 92 %, 94 %, 93 % and 98 % respectively. For non-immersion group, 4-weekly D2 intubation rate over the same period was 48 %, 71 %, 86 %, 93 % and 93 %. 4-weekly DOPS assessed competence % for immersion group was 18 %, 65 %, 77 %, 86 % and 96 % compared to 36 %, 50 %, 80 %, 88 % and 91 % for non-immersion group.

The immersion group recorded a median time to certification of 198 days. In comparison, 12 trainees were certified in 2019 and requiring a median of 693 days, and in 2021, 21 trainees were certified and required a median of 784 days.

Conclusions Our results show that early high volume procedure completion can lead to a faster KPI acquisition. Time to certification with immersion was faster despite trainees requiring more procedures on the updated JAG gastroscopy certification pathway [1]. Further work is required to address pathology recognition and ENTS training which may be reflected in the comparable DOPS competence data between both groups. Immersion training is labour intensive but has clear benefits of accelerating certification whilst still preserving quality and can be achieved across a large geographic area to meet the needs of trainees in an equitable manner.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP208 Training in EUS: current state of training modalities from a worldwide survey

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DOI 10.1055/s-0044-1783218

Aims Endoscopic Ultrasound (EUS) is an advanced procedure requiring a formal and specific training. Currently position papers by American and European societies for endoscopy (ASGE and ESGE) have been published on required training modalities, but data on the adoption of such standards lack. Our aim was to describe the current state of training in EUS around the world, investigate educational lacks and clarify expectations of trainees for their training period.

Methods A survey was administered to Next-Generation EUS Pre-Course 2023 participants, all EUS trainees < 40 years of age. This comprehended 66 questions evaluating 5 topics: traineesdemographic data and basic competences, training centres characteristics, training modalities adopted, activities after the end of training period, trainees expectations and opinions. Survey responses were analysed using descriptive statistics.

Results 114 EUS trainees replied from 5 continents; 59.9 % males, 89.5 % gastroenterologists (10.5 % surgeons or internists). 29.5 % of trainees were trained in centres with EUS volumes < 10/week. 79.5 % of training were in centres were same-session EUS-ERCP could be performed and 67.3 % of trainees believed that the same person should be trained in both procedures. In contrast to books, videos or conferences, phantom models and in-vivo/ex-vivo models

were very rarely used and also considered not very useful as learning opportunities. 61.1 % of trainees aimed to achieve during training a complete autonomy in diagnostic EUS + FNA/FNB for all stations, plus at least an initial approach to therapeutic EUS. Most trainees affirmed that during training they expected more hands-on, therapeutic-EUS, FNA/FNB teaching on ultrasound machine and more focus on contrast/elastography skills.

Conclusions EUS training around the world is variable and does not always respond to basic ASGE/ESGE sugges- tions. A higher volume of hands-on procedures with FNA/FNB should be guaranteed during training. It should be discussed whether a basic training period in EUS should include also an initial approach in therapeutic EUS, as expected by trainees.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP209 Creating 3D Models as Teaching Aids for Large Colorectal Polyp Assessment

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DOI 10.1055/s-0044-1783219

Aims Endoscopists training in more advanced polypectomy techniques need to acquire skills in optical diagnosis. They must be able to estimate the risk of malignancy within a large, non-pedunculated colorectal polyp (LNPCP) because this is critical for decision-making regarding treatment, and to avoid adverse outcomes [Tate 2023].

Assessment is based on size, morphology, surface characteristics (pit/vascular pattern, demarcated areas) and other features such as tethering and ulceration. Since LNPCPs account for only 2-5 % of polyps, they are infrequently encountered during training. Assessment skills are usually taught using photographs or videos. These generally highlight areas of interest, which makes it difficult for trainees to learn the skills necessary to interrogate a polyp to find discriminating features independently. [1]

We aimed to develop a comprehensive library of digital 3D LNPCPs which could be used as an interactive online teaching resource, and to 3D print a selection of these to create physical training models.

Methods Virtual polyp models were created from reference images using digital 3D modelling software, ZBrush. A range of pit patterns were produced using reaction diffusion simulation software and overlayed on the polyps to create realistic 3D surface textures. The process was guided throughout by an experienced endoscopist. Digital 3D polyps were uploaded to an on-line learning environment where they could be manipulated and explored by users, with 'hot-spots' allowing annotations and additional learning material to be accessed via mouse click. Selected polyps were 3D printed in both durable and flexible resins, and finished by hand-painting. Evaluation was sought from expert colonoscopists who rated the models for realism and potential usefulness as educational tools.

Results Both the digital 3D polyps and the physical 3D versions were rated as showing a high degree of realism. Morphology and discriminating features such as demarcated areas and variations in pit pattern were deemed sufficiently realistic to be useful for training.

Suggestions for improvement included simulating the effects of chromoendoscopy and narrow band imaging (NBI) for the digital versions, and to present them in a more engaging environment, such as a simulated segment of colon.

Conclusions We have demonstrated that close collaboration between experienced clinicians, and artists with expertise in 3D modelling and fabrication, can produce artificial polyps of sufficient fidelity to be useful as educational aids for teaching LNPCP assessment skills. Further work is ongoing to develop the models to provide simulations of image enhancement, and to present them in a navigable 3D on-screen simulated colon.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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Dealing with polyps and cancers in the colon

27/04/2024, 09:00 – 10:00 **Science Arena: Stage 2**

MP210 Applicability of the Scottish Screen-detected Polyp Cancer Study (SSPoCS) Algorithm in a multicentric cohort in the management of malignant colorectal polyps

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Aims Robust evidence regarding the management after endoscopic resection of malignant colorectal polyps (MCP) is lacking. Inconsistencies in reporting on potential prognostic factors, such as submucosal invasion depth and tumor budding, hinder the decision process. To address these issues, the Scottish Screen-detected Polyp Cancer Study (SSPoCS) introduced an algorithm based in two easily obtainable variables: resection margin and lymphovascular invasion. This study aims to assess the applicability of the SSPoCS algorithm in a Portuguese multicentric cohort.

Methods Endoscopically resected MCP in five centers from 2017 to 2020 were included. The main outcome was residual/recurrent malignancy (RRM), defined as any of the following: [1] residual intramural or lymph node malignancy in the surgical specimen after completion surgery; [2] local or systemic recurrent disease in conservatively managed patients.

Results Two-hundred-and-eleven patients were included (mean age: 68.6 ± 10.4 years; male gender: 65.4 %); 121 underwent completion surgery while 90 remained in surveillance. Thirty-two patients (15.2 %) experienced RRM: 27 displayed residual malignancy in the surgical specimen and five developed recurrent disease. According to SSPoCS algorithm: 119 patients were classified as having low-risk of residual disease, six of whom displayed RRM (5.0 %); 10 as medium-risk, with one having RRM (10.0 %); and 82 as high-risk, 25 of whom experienced RRM (30.5 %). Lesions classified as low-risk showed a negative predictive value (NPV) of 95.0 % to exclude RRM. The algorithm demonstrated good accuracy in predicting RRM in a Receiver Operating Characteristic curve analysis (AUC: 0.74, 95 % CI: 0.65-0.83, $p < 0.001$). In lesions classified as low-risk, all six cases of RRM displayed deep submucosal invasion (DSI: > 1000 µm). In a multivariate analysis, piecemeal resection was the only independent variable associated with RRM (OR: 1.90; 95 % CI: 1.02-3.10; $p < 0.001$).

Conclusions The SSPoCS algorithm revealed good accuracy in predicting residual/recurrent malignancy with a NPV of 95.0 % to exclude RRM in low-risk

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lesions. All cases of RRM following low-risk resections showed DSI, suggesting that invasion depth might be relevant for the decision-making process.

Conflicts of interest The authors certify that there is no conflict of interest with any financial organization regarding the material discussed in the manuscript.

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MP211 Artificial intelligence-aided colonoscopy for adenoma detection and characterization. A cost-effectiveness analysis in the Spanish setting

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Aims Computer-assisted detection and characterization (CADe/CADx) of colorectal neoplasia can substantially reduce the burden of polypectomy and pathology costs, as well as the number of interval colorectal cancers (CRC) arising from failed adenoma detection. This study aimed to assess the cost-effectiveness of GI Genius technology, an Intelligent Endoscopy Module for real-time polyp detection and characterization, compared to standard clinical practice in patients eligible for colonoscopy, from the Spanish National Health System perspective.

Methods A Markov model was designed to estimate, over a lifetime horizon with annual duration cycles, the total cumulative costs, and total outcomes, in terms of life years gained (LYG) and quality-adjusted life years (QALYs). A hypothetical cohort of 1,000 patients, with a mean age of 61.32 years eligible for colonoscopy (any indication) were distributed between different health states according to polyp size, location, and histology, based on data reported in national screening programmes. Efficacy for GI Genius was captured considering the difference in adenoma miss rates between GI Genius and conventional endoscopy reported by a prospective randomized study. Natural disease evolution was simulated according to annual transition probabilities between health states, identified in the literature. Management of any detected polyp involved polypectomy and histopathology in standard practice, while with GI Genius leave in-situ strategy was applied for ≤ 5 mm rectosigmoid non-adenomas and resect and discard strategy for the rest of ≤ 5 mm polyps. Unit costs, obtained from different Spanish sources and expressed in €, 2023, were applied to health resource consumption comprising diagnostic procedure, and polyp and CRC management. An annual discount rate (3 %) was applied to costs and outcomes. The model's inputs and assumptions were reviewed and endorsed by a Spanish expert panel, and sensitivity analyses were performed to assess the model's robustness.

Results GI Genius produced more health benefits per patient (16.37 LYG and 14.32 QALYs) compared to current standard practice (16.33 LYG and 14.27 QALYs) over a lifetime horizon. Additionally, estimated mean total costs per patient undergoing GI Genius assisted colonoscopy and colonoscopy alone were €2,194.78 and €2,381.88, respectively, resulting in mean total cost savings of €187.10 per patient. The increase in diagnostic cost with GI Genius was offset by the savings associated with avoiding 145 polypectomies, 314 histopathologies, and 7 CRCs in a cohort of 1,000 patients. Sensitivity analyses confirmed the model's robustness.

Conclusions The use of GI Genius™ resulted in a dominant strategy (i.e., more effective, and less costly) compared to standard clinical practice in patients undergoing colonoscopies for CRC in Spain.

Conflicts of interest SDP, MM, and IO are employees of Pharmacoeconomics & Outcomes Research Iberia (PORIB), a consultant company specializing in health technology assessment, which has received financial support from Medtronic to conduct the development of the present work. JM, MA, and NV are an employer of Medtronic. MB, BM, and LB have received payment from Medtronic for consultant activities related to validation of the parameters and results.

MP212 Malignant polyps without endoscopic cure: is oncological resection mandatory?

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Aims Evaluate the outcomes of patients with malignant polyps without endoscopic cure, who were submitted to surgery, comparing with those who underwent surveillance.

Methods Retrospective, cohort study including patients with a malignant polyp endoscopically removed, with a minimum follow-up period of 5 years. To characterize the patients' comorbidities, the Charlson Comorbidity Index (CCI) was used. Endoscopic cure was defined as the presence of negative resection margins (> 1 mm), well or moderately differentiated histologic grade and the absence of lymphatic and vascular invasion. All patients were discussed in group oncology consultations for the final decision: surgery or surveillance.

Results Included 80 consecutive patients submitted to endoscopic removal of a malignant polyp, with 49 patients without endoscopic cure (61.3 %). Of those, 27 patients were male (55.1 %), with a median age of 65 years. Most patients had positive resection margins (95.9 %) and 6.1 % had lymphatic or vascular invasion, with only one patient having both criteria. A total of 32 patients were submitted to surgery (65.3 %) and 17 were kept in surveillance (34.7 %).

Factors that influenced the decision of surgery or surveillance were age and CCI, with those who underwent surgery having a significantly lower age (64 *vs* 74 years, $p = 0.003$) and lower CCI values (3 *vs* 4, $p = 0.016$). The polyp size and location in the right colon were not associated with the decision ($p = 0.941$ and $p = 1.000$, respectively), as well as the type of endoscopic mucosal resection (EMR), in one fragment or piecemeal ($p = 0.862$). No statistically significant differences were found between the presence of positive margins, lymphatic or vascular invasion or well or moderately differentiated histologic grade, and the decision of surgery or surveillance ($p = 1.000$, $p = 1.000$ and $p = 1.000$, respectively).

In the surgery group ($n = 32$), there was residual disease in 5 patients (15.6 %), which was not associated with the polyp size, location in the right colon, being a pediculated polyp or the type of EMR, in one fragment or piecemeal ($p = 0.347$, $p = 0.296$, $p = 0.604$ and $p = 0.631$). In this group, 1 patient had metastasis during follow-up, which lead to death because of disease progression (3.1 %) and other 2 patients died due to other causes (6.3 %). In the surveillance group ($n = 17$), 1 patient had local recurrence (5.9 %) and was then submitted to surgery; there were 3 deaths due to other causes (17.6 %). In this group, no patient had metastasis or death due to colorectal cancer during follow-up. No statisti-

cally significant differences were found between the deaths due to other causes and the decision of surgery or surveillance ($p = 0.326$).

Conclusions In patients with a malignant polyp endoscopically removed, without endoscopic cure, who have an older age and several comorbidities, surveillance is an adequate approach, without compromising the patient's oncologic outcomes.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP213 Colorectal cancer: correlation of endoscopic features with disease course

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Aims Colorectal cancer (CRC) is a multifaceted disease with diverse clinical presentations. Recognizing the pivotal role of endoscopic characteristics in shaping treatment outcomes and disease trajectory is imperative for refining therapeutic interventions. The aim of our study was to assess the correlation of endoscopic features with disease course in CRC.

Methods We conducted a retrospective and descriptive study including patients diagnosed with primary colon or rectal cancer, over an 8-year period [January 2014-June 2022]. Patients demographics and their follow-up information including endoscopic data were collected. Data were entered and analyzed by SPSS software version 26. Prognostic analysis was performed using the Kaplan Meier method.

Results Eighty-four patients were included, with a mean age at disease diagnosis of 60 ± 12 years and a sex ratio M/F = 1.89. The mean timeframe to colonoscopy from symptoms onset was 12 weeks [1-192]. The cancer was in the proximal colon (right side) in 27 % and in distal colon (left side) in 73 %. The tumor was circumferential in 55 %, stenoting in 44 % and friable with hemorrhagic appearance in 58 % of the patients, with an average size of 69 millimeter [15-180]. Liberkhunian adenocarcinoma was the dominant histological type (90 %). Circumferential tumors were associated with a high rate of carcinoembryonic antigen (26 % vs. 8 %, p = 0.046) and with lymph node involvement (73 % vs. 50 %, p = 0.032). For distant extension, metastases were associated with stenoting tumors and friable tumors (p = 0.013, p = 0.025 respectively), with a higher occurrence of hepatic metastases (p = 0.05, p = 0.01 respectively). Advanced TNM stage 3 or 4 was more common in left-sided tumors (63 % vs. 43 %; p = 0.05) and friable tumors (78 % vs. 36 %, p = 0.001). In terms of anatomopathological findings, a higher frequency of vascular emboli was noted in colonic tumors compared with rectal tumors (49 % vs. 22 %, p = 0.045) and in circumferential tumors (52 % vs. 29 %, p = 0.05). A higher frequency of perineural invasion was also noted in circumferential tumors, stenoting tumors and friable tumors (p = 0.045, p = 0.007 and p = 0.027 respectively). As for treatment, neoadjuvant chemotherapy and radiotherapy were more indicated in left-sided tumors (p = 0.002; p = 0.04 respectively). The urge for primary surgery was more noted in right-sided tumors (p = 0.006). Adjuvant chemotherapy was more indicated for circumferential tumors, stenoting tumors and friable tumors (p = 0.044, p = 0.011 and p = 0.03 respectively). Recurrence-free survival at 1, 3 and 5 years was significantly lower for friable tumors with hemorrhagic appearance (p = 0.015, 0.019 and p = 0.036 respectively). Comparing Kaplan-Meier survival curves, there was no significant difference in survival for right or left colonic location (log rank test = 0.482), circumferential status (log rank test = 0.262) and stricturing status (log rank test = 0.194).

Conclusions Our study pinpoints specific connections between endoscopic features and critical aspects of CRC,thus,emphasizing the need for personalized interventions guided by endoscopic insights.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP214 Value of the green sign and chicken skin aspects to predict malignancy in colorectal neoplasia in a prospective characterization study

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Aims Accurate endoscopic characterization of colorectal lesions is essential for predicting histopathological characterization but is difficult even for experts [1]. Simple criteria could help endoscopists detect and predict malignancy. This study aimed to assess the value of green sign [2] and chicken skin [3] aspects in predicting colorectal neoplasia malignancy.

Methods We prospectively characterized and evaluated the histopathological characterization of all consecutive colorectal lesions detected during screening or referred for endoscopic resection (Pro-CONECCT study). The severity of lesions histopathological characterization was assessed according to the presence of green sign and chicken skin.

Results 461 patients with 803 colorectal lesions were included. Green sign and chicken skin were described in 15.8 % and 12.6 % of the cases, respectively and 6.7 % of lesions had both aspects. On multivariate analysis, green sign was associated with a risk of malignant lesion (Odds Ratio [OR] 5.9 [95 % CI, 3.4-10.2], p < 0.001) and of invasive cancer (> = T1) (OR 9.0 [3.9-21.1], p < 0.001). Chicken skin was associated with a risk of malignant lesion (OR 1.9 [1.0-3.4], p = 0.036) and with a non-significant risk of invasive cancer (OR 2.1 [0.9-4.7], p = 0.063).

Conclusions Green sign is predictive of malignancy in colorectal neoplasia and should become a red flag for endoscopists. Targeting these areas before precise analysis of the lesion could be a way of improving the detection of focal malignancies and the prediction of the most severe histopathological characterization.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP215 Predictors of endoscopic cure for Malignant Colorectal Polyps

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Aims Malignant colorectal polyps present a unique challenge due to their potential for metastasis. While complete endoscopic resection often achieves cure, comprehensive data on the characteristics influencing it remain limited.

This study aimed to elucidate the key predictors associated with achieving endoscopic cure for malignant polyps.

Methods We retrospectively evaluated 3736 endoscopic polyp resection procedures. Patient clinical records were accessed for demographic and clinical information, complemented by analysis of pathology reports. A difficult polyp location was defined by criteria such as "cap"-assisted procedure, growth over a fold or on a previous scar, peri-appendicular position, or proximity to the anal canal. Signs of submucosal invasion encompassed “non-lifting” sign, depressed lesions, or ulceration. Cure was defined by the pathologist analysis comprising negative margins (> 1mm) and favorable histological prognosis factors.

Results Ninety patients were enrolled in the study, comprising 56 % males, with a median age of 66 years. A total of 94 malignant polyps were resected with a global cure rate of 35.1 %. Paris classification 0-Ip polyps accounted for 39.4 % and exhibited a significant association with endoscopic cure (p = 0.008, OR 3.24, 95 % CI 1.3-7.9) compared to non 0-Ip polyps (0-Is, 0-Is + Ip, any 0-II). Most 0-Ip polyps were localized in the left colon (86.5 %), and 51.4 % were resected with cure. Interestingly, stalk characteristics (p = 0.802) and polyp size (p = 0.940) did not demonstrate a significant impact on the likelihood of cure. In contrast, 47.4 % of the non 0-Ip polyps were located in the rectum, 35.1 % in the left colon and the remaining 17.5 % in the right colon. The cure rate for non 0-Ip polyps was 24.6 %. A difficult location (p = 0.027, OR 0.69; 95 % CI 0.57-0.84) and signs of submucosal invasion (p = 0.049, OR 0.7; 95 % CI 0.58-0.84) were linked to endoscopic resection without achieving cure. Additionally, our analysis revealed that non-Ip polyps lacking endoscopic cure were larger than those successfully treated (27.7 ± 13.9mm vs. 19.1 ± 7.8mm, p = 0.031). [1]

Conclusions Our analysis underscores endoscopic resection viability for potentially malignant pediculated polyps, irrespective of size or stalk type. However, sessile/flat polyps present challenges, particularly when large, in difficult locations or with endoscopic signs of submucosal invasion. In these scenarios, en bloc removal using advanced techniques might contribute for endoscopic cure.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP216 Video Assessment Of Large Non-Pedunculated Colorectal Polyps Similarly Predicts Hard Outcomes In The Assessment Of Submucosal Invasive Cancer Risk Compared To Live Assessment

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Aims Cancer in large non-pedunculated colorectal polyps (LNPCPs) is poorly discriminated outside expert centres. It is unknown whether video- is comparable to live-assessment for determining submucosal invasion (SMI) in LNPCPs. Video-assessment has multiple advantages including collaborative discussion of imaging findings at multi-disciplinary meetings avoiding extra assessment procedures for patients or incorrect decision-making. We compared live LNPCP assessment with analysis of videos produced by an expert.

Methods Blinded live assessments of LNPCPs from consecutive, consenting patients were conducted by 15 endoscopists in a single center. After the live assessment, an expert recorded a standardized video of each LNPCP. The remaining endoscopists [who had not assessed the LNPCP live] assessed these videos using an online survey. Endoscopists were classified as experienced (> 50 EMRs ever and > 1000 colonoscopies) or inexperienced. Parameters such as Blink Impression(BI) [1], 6-Blink Features(BF) – namely fold deformation, extra redness, depression, chicken skin mucosa, ulceration and spontaneous bleeding – presence of a Demarcated Area(DA), Vascular Pattern(VP) of any DA, size, location, Paris classification, and morphology were recorded to form the endoscopist's impression of cancer presence in the LNPCP. The results were later compared to expert consensus including an external validator. The primary endpoint was to evaluate the accuracy of endoscopists’ final impression of cancer and choice of correct treatment between live and video assessments.

Results 64 live assessments (12 endoscopists) & 96 video assessments (9 endoscopists) of 18 LNPCPs were performed. 5 (41.7 %) (live) vs 4 (44.4 %) (video) endoscopists were inexperienced. The comparison of live versus video assessments revealed no significant difference in the final impression of cancer presence by the endoscopist (sens 80.0 % vs 100 %, spec 87.0 % vs 85.5 %), BI (sens 85.7 % vs 92.3 %, spec 88.6 % vs 80.7 %) and the presence of ≥ 2BF (sens 71.4 % vs 84.6 %, spec 81.8 % vs 68.7 %) vs histology (P = .77, .34 & .21 respectively). Further the ability of DA & JNET to predict SMI did not differ nor did the rate of correct treatment determination (71.9 % live vs 60.4 % video, P = .14). Versus expert consensus the determination of ≥ 2BF was equally accurate live (82.4 %) vs video (76.0 %,P = .38). Conversely the exact number of BF vs experts (live 60.4 % vs video 37.5 %,P = .01), the presence of ≥ 3 features (location, size, morphology or Paris classification) of COVERT (not visible on the surface) SMI live (81.3 %) vs video (65.6 %, P = .03) and the correct outcome of a structured algorithm [2] (live 96.9 %, video 81.3 %,P = .002) were determined differently between the groups.

Conclusions Final impression of the presence of cancer and determination of correct treatment in LNPCPs are predicted equally well from blinded video assessment versus live assessment in a group of similarly experienced endoscopists. This finding could minimise the need for patients to undergo a repeat procedure to assess their LNPCP prior to resection.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP217 Endoscopic mucosal resection of large nonpedunculated colorectal polyps: Recurrence rates and predictors

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Aims Recurrence rates following endoscopic mucosal resection (EMR) range from 12 to 24 %, with larger lesions harboring a higher risk for recurrence. We aimed to assess the recurrence rate after EMR of large nonpedunculated colorectal polyps and identify potential predictors of recurrence.

Methods Retrospective single center cohort study. All consecutive patients that underwent EMR of nonpedunculated polyps larger than 20mm in a non-tertiary hospital from January 2020 to March 2023 were included. Demographic, clinical, colorectal lesions characteristics and procedural aspects were collected. Logistic regression analysis was employed to assess possible risk factors.

Results 182 patients (65 % male; mean age 68.97 ± 13.44 years) with 208 large nonpedunculated colorectal polyps underwent EMR. The mean lesion size was 28.33 ± 9.98mm and 56 % were located in the right colon. Regarding morphology, 41 % were classified as lateral spread tumors, 31 % as Paris 0-IIa and 18 % as Paris 0-Is. The majority (81 %) of the polyps were resected in piecemeal and high-grade dysplasia was found in 41 % of cases. Early colonoscopy surveillance at 6.5 ± 3.6 months was conducted for 57 % of patients. Recurrence rate was 17 % (n = 17). Size (p = 0.014) and ulceration within the polyp (p = 0.049) were associated with recurrence. Although 71 % of recurrences occurred in the right colon, this difference was not statistically significant. SMSA score showed a

good predictive capacity for recurrence (AUROC = 0.648). Multivariate logistic regression analysis identified size an independent predictor for recurrence (p = 0.028).

Conclusions In our cohort, early recurrence following EMR of large nonpedunculated polyps was observed in 17 % of cases. Both size and the presence of ulceration within the polyp were associated with higher recurrence rates, with size identified as an independent predictor. Inclusion of ulceration may improve the current SERT with respect to risk stratification for recurrence and subsequent management.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP218 Long-term Adenoma Recurrence and Development of Colorectal Cancer Following Piecemeal Endoscopic Mucosal Resection (EMR) in Large Non-Pedunculated Colonic Polyps ≥ 4cm (LNPCPs)

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Aims The purpose of the study is to assess the adenoma recurrence, as well as the the development of colorectal cancer after piecemeal EMR in LNPCPs ≥ 4cm. To the best of our knowledge, this is the first study on this issue in Greece.

Methods This is a prospective study of a reference center from 2009 to 2020. Inclusion criteria were the presence of an adenomatous polyp ≥ 4cm in size, 0-IIa + Is according to Paris classification, SMSA score IV and complete endoscopic removal by EMR method.

Results 142 patients were included in the study (57.7 % men, median age 67 years). The median polyp size was 5 cm. (range 4-10cm.) with localization of 56.3 % in the left and 43.7 % in the right colon. Early recurrence/residual tissue was found in 43 polyps (30.3 %), while late recurrence in 12 (8.5 %). The intervals 2009-2016 & 2017-2020 recurrence rates were 9.46 % and 7.35 %, respectively. In 6 patients, further treatment was decided with colectomy (5 patients) and full-thickness endoscopic resection (1 patient). The mean time to appearance of residual/early recurrent tissue was 2.6 months (range 2.13-3.07 months), while the corresponding time to late recurrence was 22.26 months (range 7.7-44 months). The mean endoscopic follow-up time was 35.3 months (range 7.7-62.9 months) with a mean number of colonoscopies 3.08/patient, excluding the reference colonoscopy. No patient developed colorectal cancer with a mean follow-up of 74.06 months (range 7.7-140.43 months).

Conclusions Data from this historical cohort study show that the EMR of LNPCPs ≥ 4cm. is a method of first choice with low adenoma recurrence rate and zero incidence rate of colorectal cancer.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP219 Faecal volatile organic compounds to detect colorectal neoplasia in Lynch syndrome – a prospective multicentre study

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Aims Colonoscopy surveillance for Lynch syndrome is burdensome and post-colonoscopy colorectal cancer (CRC) still occurs. Non-invasive faecal volatile organic compounds (VOCs) might guide optimal colonoscopy intervals.

Methods Prospective, multi-centre study in which individuals with Lynch syndrome collected a faecal sample prior to high-quality surveillance colonoscopy. Samples were analysed using field asymmetric ion mobility spectrometry (FAIMS) and our well-established machine learning pipeline including 10-fold cross validation, to assess diagnostic performance of faecal VOC patterns for relevant neoplasia: advanced neoplasia (CRC, advanced adenomas [AA] and advanced serrated lesions [ASL]) and non-advanced adenomas (NAA). On sensitivity analysis, individuals with and without neoplasia were matched 1:1 on possible confounders: gender, age, BMI, smoking and diet. Using gas chromatography time-of-flight mass spectrometry (GC-TOF-MS), individual faecal VOCs were identified from a random subset of 13 NAA and 14 controls.

Results Of the 132 included individuals (57 % female, median age 51y, 86 % ≥ 2 previous colonoscopies), 3 had CRC, 3 AA, 3 ASL and 32 NAA as most relevant neoplasia. Faecal VOC patterns showed a 66 % positivity rate and a sensitivity and negative predictive value of, respectively, 100 % and 100 % for advanced neoplasia (54 % specificity), and 88 % and 89 % for relevant neoplasia (44 % specificity). On sensitivity analysis (n = 9 *versus* n = 9 [advanced neoplasia], n = 35 *versus* n = 35 [relevant neoplasia]), specificity for advanced neoplasia improved to 89 % at equal sensitivity (100 %) whereas sensitivity for relevant neoplasia decreased to 79 % at equal specificity (44 %). NAA presence was associated with decreased faecal VOC abundance of butanal, dimethyldisulfide, dimethyltrisulfide, hydrazinecarboxamide and 2-hexanone.

Ranging from extremely burdensome [0] to not burdensome [10], median patient acceptability regarding faeces collection was 7 (IQR 6 – 9), with "not burdensome" being more prevalent among patients under 39y than over 60y irrespective of gender (OR 0.484, p-value 0.045).

Conclusions Faecal VOC patterns seem to detect relevant neoplasia in Lynch syndrome with high sensitivity and moderate specificity, with the latter potentially improving upon correction for external confounders. Individual faecal VOCs provide pathophysiological insights and, following validation, may be translated into a diagnostic test. These results provide a perspective on faecal VOCs enabling personalised colonoscopy surveillance in Lynch syndrome.

Conflicts of interest ELSAvL, MAJMJ, JJK, JPK, JAC, Emma D and MEvL declare no competing interests. DR has received a research grant (unrestricted) from AbbVie. He has served as a member of the data safety monitoring board of the VIVIAD trial. Evelien D has endoscopic equipment on a loan of FujiFilm and has received a research grant from FujiFilm. She has received an honorarium for a consultancy from FujiFilm, Olympus, InterVenn and Ambu, and speakers' fees from Olympus, GI Supply, Norgine, IPSEN, PAION and FujiFilm. MCWS has received research support from Sysmex, Sentinel, Medtronic and Norgine. NKHdB has served as a speaker for AbbVie and MSD and has served as a consultant and principal investigator for TEVA Pharma BV and Takeda. He has received a research grant (unrestricted) from Dr. Falk, TEVA Pharma BV, Dutch Digestive Foundation (MLDS) and Takeda.

Keep it Moving The Expanding Role of Endoscopy in Gastric Motility Disorders and Outlet Obstruction

27/04/2024, 10:30 – 11:30 **Science Arena: Stage 2**

MP220V Pyloric Endoscopic Myoablation with a novel super pulsed thulium fiber laser and endoscopic hand suture for gastroparesis

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DOI 10.1055/s-0044-1783230

Endoscopy 2024; 56: S1–S503

Abstract Text We report the case of a 72-year-old male presenting with post-prandial nausea, early satiety, and pain attributed to gastroparesis after surgical complications. Pyloric endoscopic myoablation was performed with a Thulium fiber laser, with a 365-nanometer fiber in combination with a 5 Fr triple-lumen cannula and physiological saline irrigation. The energy settings was 10-30W. Ablation targeted a quarter of the pyloric circular muscle to increase the inter-fiber distance. The mucosal defects were sutured with absorbable 3-0 sutures. Post-procedure, the patient experienced minimal discomfort and was discharged after one day. On following up after 6 weeks, the patient reported complete symptom resolution, and gastroscopy revealed an open pylorus with evident depression at the ablation site and complete mucosal healing. [1]

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/1981f701-fd2d-4541-bd0d-4ef2222be895/Uploads/13821_Pyloric_myoablation%20sutuart.mp4

Conflicts of interest Pham KDC is an consultant, speaker and trainer for Olympus EAMEHavre RF has none

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MP221 Comparision of safety profile, clinical success and re-intervention rates in EUS- Gastroenterostomy versus enteral self expandable metal stents in patients with malignant gastric outlet obstruction

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DOI 10.1055/s-0044-1783231

Aims To compare safety profile, clinical outcomes and re-intervention rates between EUS-GE and enteral SEMS in the palliation of malignant GOO.

Methods Retrospective analysis of a prospectively collected database on patients who underwent EUS-GE or enteral SEMS placement for palliation of malignant GOO over a period of 3.5 years from December 2019– August 2023. Outcomes measured were – technical and clinical success, adverse events (AE), length of hospital stay, need for re-intervention.

Results 50 patients included (n = 20-EUS-GE, n = 30-Enteral SEMS). Mean age-EUS-GE- 62.4 years ± 4 and 62.4 years ± 11.8 for Enteral SEMS; 64 % males. Both groups were comparable in terms of clinical presentation (p = 0.405). Location of GOO- Proximal duodenum involved in 75 % of patients in EUS GE group and 66.7 % in Enteral SEMS group(p = 0.529), antrum is involved in 25 % of patients in EUS GE group and 33.7 % in Enteral SEMS group. Etiology of GOO is comparable in both the groups (p = 0.981) with carcinoma head of pancreas as the most common etiology.Technical success and Clinical success was achieved in 90 % in EUS-GE,100 % in Enteral SEMS group (p = 0.058, p = 0.155) respectively. Mean length of hospital stay (LOS) for EUS-GE group was 4.8 days ± 2.9 and 3.5 days ± 3.0 for enteral SEMS group (p = 0.133). No re- intervention was required in EUS GE group whereas it was required in two patients in enteral SEMS group (p = 0.16). The median survival was comparable in both groups (EUS-GE group- 5.4 ± 4.6 months , Enteral SEMS group -5.5 ± 4.2 months [p = 0.976]). Kaplan-Meier analysis revealed no significant difference in the survival between both groups (p = 0.900).

Conclusions Both EUS-GE and Enteral SEMS demonstrated comparable outcomes in terms of technical and clinical success, safety profile and need for re-intervention. Median survival less than 6months in both groups was study limitation and could have impacted study outcomes. For patients with expected survival < 6months, outcomes of enteral SEMS were non inferior. Further studies comparing these two modalities in patients with longterm survival are required to demonstrate superiority of one modality over the other.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP222V Reestablishment of gastrointestinal transit in a patient with gastric outlet obstruction and a large gastrocolic fistula

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DOI 10.1055/s-0044-1783232

Abstract Text A 47-year-old man with an unresectable transverse colon adenocarcinoma with gastric infiltration was admitted for vomiting and compromised nutritional status. Gastroscopy showed fecal material in the stomach and a large ulcerated mass that infiltrated the antrum with stenosis of the duodenal bulb; this mass included a large gastrocolic fistula of about 4 cm in diameter. Treatment with a duodenal fully covered metal stent was unsuccessful because of proximal migration into the stomach. Then a two steps approach was attempted: first, a gastrojejunostomy with a lumen apposing metal stent to restore the passage to the small bowel and, subsequently, a complete suturing of the gastric antrum to exclude the fistula. The clinical result was satisfactory, with resolution of vomiting and good oral intake.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/ad5e5b76-bc0a-4b85-a3cf-73c082d3e05c/Uploads/13821_Gastrocolic_fistula.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP223 Palliation of Gastric Outflow Obstruction in Case of Biliary Obstruction Previously Treated with EUS-Guided-Choledochoduodenostomy. A Retrospective, Multicenter Study: The B-GOOD Study

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DOI 10.1055/s-0044-1783233

Aims Endoscopic ultraosound -guided choledochoduodenostomy (EUS-CDS) is to date considered a valuable option of jaundice treatment in case of distal malignant biliary obstruction (DMBO) after endoscopic retrograde cholangiopancreatography (ERCP) failure. EUS-guided gastroenterostomy (EUS-GEA) is a novel and effective procedure for management of malignant gastric outlet obstruction (GOO) when compared to enteral stenting. However, data comparing EUS-GEA to enteral stenting in patients already treated with EUS-CDS are lacking. We aimed to compare outcomes of EUS-GEA and enteral stenting for the palliation of GOO in this population of patients.

Methods A multicentre retrospective analysis of patients with DMBO treated with EUS-CDS and concomitant or subsequent GOO treated with EUS-GEA or

enteral stenting from 2016 to 2021 was conducted. Primary outcome was clinical success on GOO symptoms. Secondary outcomes included technical success, length of hospital stay, adverse events (AEs), need for reintervention, patency of the EUS-GEA and patency of the EUS-CDS.

Results A total of 77 consecutive patients were identified, of which 52 underwent enteral stenting and 25 underwent EUS-GEA. Clinical success, technical success, average procedure duration time, average hospital stays, AEs rate, rate of reintervention and patency outcomes were comparable between the two groups. Interestingly, focusing on the loss of patency of the EUS-CDS, defined as stent migration/obstruction, cholangitis or jaundice occurring after GOO treatment, not statistically significant differences were reported between the EUS-GEA group and the enteral stenting group (12,5 % vs 17,3 %; p = 0,74).

Conclusions Enteral stenting and EUS-GEA are both clinically and technically effective for the treatment of GOO in patients already treated with EUS-CDS showing comparable efficacy, AEs' rates and patency outcomes. Further larger prospective studies are needed to confirm these data.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP224 Large experience of EUS-guided gastroentero-anastomosis (EUS-GEA) validating the drain-assisted technique: we are ready for benign indications

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DOI 10.1055/s-0044-1783234

Aims EUS guided GEA is a serious alternative to duodenal stenting and surgical GEA in malignant gastric outlet obstruction (GOO). Indeed, efficacy and reintervention rates are significantly better than stenting, whereas non inferiority was demonstrated compared to surgery, with faster recovering. That is why recent ESGE guidelines recommended EUS-GEA as an alternative for malignant obstruction. However, because of adverse events such as misdeployment with the direct technique, the EUS-GEA was contra-indicated to benign indications. We propose our experience with the evolution toward drain assisted technique (DA-EUSGEA) and the increasing of benign indications.

Methods This was a retrospective monocenter study of consecutive cases conducted in two expert centers between October 2016 and August 2023. Patients included had either malignant or benign GOO, Gastroparesis, or other pathology indicated for EUS-GEA. Procedures were discussed and validated in multidisciplinary meeting and were performed with therapeutic linear scopes, and techniques applied were the direct approach until August 2021, then the DA-EUSGEA technique since then. The main objective was to evaluate the technical success at first attempt, defined by the ability to place the lumen apposing stent (Axios, Boston scientific, USA) without dislodgment. The secondary objective was the final technical success (after rescue), the adverse events rate and the clinical efficacy depending on the etiologies.

Results In total, 87 patients were included, 41 women and 46 men, with mean age of 64.61 ± 18.67 years old. The indications were malignant in 60.1 % (n = 53) dominated by pancreatic adenocarcinoma (n = 39) and duodenal (n = 14), and benign in 39.1 % (n = 34) dominated by gastroparesis (n = 16) and chronic pancreatitis (n = 9). Direct EUS-GEA were applied in 33 patients (37.9 %) whereas DA-EUSGEA were attempted in 54 patients (62.1 %).

Technical success rate at 1st attempt was 88.5 % (n = 77). Among the other 10 patients, we experienced 8 misdeplyoment: 6 were addressed with rescue technique, 1 was closed with over-the-scope clip, 1 operated). The 2 others were bleeding and failure to place the drain.

The final success rate was 96.6 % and the clinical success rate was 94.25 % (n = 82). Postoperative adverse event (AE) rate was 14.9 % (sepsis (6), bleeding/anemia (4)), grade I or II in AGREE classification. One patient in poor condition died following the procedure.

Comparing malignant with benign indications, technical, clinical success, misdeployment rates and AE rates were similar. Comparing the two approaches, misdeployment rate was significantly decreased using the WEST approach compared to the direct one: 3.7 % versus 18 % (p < 0.05).

Conclusions This study, including more than one third of benign indications, demonstrated the increasing safety of the DA-EUS-GEA, reducing the risk of misdployment to less than 4 %. This represents an additional step towards proposing EUS-GEA in benign indications.

Conflicts of interest Pr Barthet: Consultant for BostonSicentific, Pentax and FujifilmPr Gonzalez: consultant for Boston Scientific, Pentax and Fujifilm

MP225 Endoscopic ultrasound guided gastroenterostomy with lumen apposing metal stent: an animal study comparison of wireless and over-the-wire techniques

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DOI 10.1055/s-0044-1783235

Aims EUS guided gastroenterostomy (EUS-GE) is a recently developed endoscopic procedure for the management of benign or malignant gastric outlet obstruction (GOO). Moreover, with its high technical success rate and long-term patency, the EUS-GE may replace duodenal stenting for the management of GOO. Nevertheless, the lack of standardization, the rate of misdeployment and the poor knowledge of endoscopic rescue therapy are limiting its use. The aim of this study was to compare the outcomes of wireless endoscopic simplified technique (WEST) and direct technique over a guided-wire (DTOG) and the long term patency and physical force of the EUS-GE after endoscopic rescue therapy using stent-in-stent technique.

Methods This was a prospective, experimental and comparative study on 10 living pigs, comparing two groups: EUS-GE with orointestinal catheter and the DTOG or the WEST technique. EUS-GE was performed under fluoroscopic control. The easiness of the procedure was assessed using a visual analogue scale (VAS): the higher the score the easier the procedure. After creation of EUS-GE, a misdeployment was provoked deliberately in order to allow endoscopic rescue therapy with LAMS-in-LAMS (16 * 20 mm). After 10 weeks, the LAMS were removed and animals were followed for 2 weeks more. Primary endpoints included technical success, safety and difficulty of WEST and DTOG techniques, while secondary endpoints included long-term patency and strength of EUS-GE after endoscopic rescue therapy. [1–5]

Results 11 EUS-GE were performed in 10 living pigs. Spontaneous LAMS migration occurred in one pig in the WEST group without clinical consequence. Technical success was higher in the WEST group (100 % vs 60 %, p = 0.18). The rate of misdepolyment was lower in the WEST group (33.3 % vs 100 %, p = 0.06). The mean procedure time was significantly lower in the WEST group (17 min vs 69 min; p = 0.002). The number of attempts was significantly lower in the WEST group (1.3 vs 6.7 p = 0.003). And the VAS score was significantly higher in the WEST group (7/10 vs 1/10 , p = 0.000). Concerning LAMS-in-LAMS technique, clinical success was 100 %. No spontaneous migration after LAMS-in-LAMS was reported. At 10 weeks, the LAMSs were impacted in each other without tissue interposition. After LAMS removal, the diameter of the anastomosis was reduced by an average of 1.85 mm [0;9.5 mm]. By applying progressive traction force on to the ex-vivo anastomosis, mean anastomotic rupture force was 27,46 ± 2,75N with a mean change in tissue length of 50.2 ± 4.6 %, indicating excellent anastomotic force and elasticity even after rescue LAMS-in-LAMS technique.

Conclusions The EUS-EG WEST appears to result in higher technical success with lower misdeployment risk as compared to the EUS-GE DTOG. Furthermore, the mean procedure time and the number of attempts to perform EUS-GE was lower with the WEST. In case of LAMS misdeployment, the LAMS-in-LAMS tech-

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nique turns out to be a reliable rescue therapy with a good clinical success, good long-term patency and tissue elasticity and force.

Conflicts of interest Olympus EuropeBoston scientific

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MP226 Endoscopic Management of Delayed-Gastric-Emptying after Esophagectomy in a Tertiary Referral Center: comparison between different endoscopic procedures

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Aims Delayed Gastric Emptying (DGE) after Esophagectomy with a gastric conduit is a complication that occurs in 15-39 % of patients. It is associated with short and long-term complications and with a poor quality of life. Intra-Pyloric Injection of Botulinum Toxin (BT), Pyloric Pneumatic Dilation (PD), and combination of these two techniques (BTPD) in the same session, represent the main endoscopic procedures, but comparative data are currently unavailable.

Methods We retrospectively analyzed prospectively collected data on all consecutive patients with DGE after esophagectomy treated with BT, PD, or BTPD from December 2018 to November 2023. DGE was classified based on the onset day into three degrees according to the Wente MN et al. Classification, and the Gastric Outlet Obstruction Score (GOOS) was used for clinical staging. All patients undergoing BT received 200 UI of toxin, while those undergoing PD were dilated with the same model of pneumatic balloon at 20mm. Technical success (TS) was defined as the completion of the procedure, clinical success (CS) as achieving a GOOS of ≥ 2, and recurrence as a GOOS of ≤ 1 with the need for medical or endoscopic treatment in patients which achieved CS. Adverse events (AEs) were classified using the AGREE classification.

Results A total of 34 patients (82.4 % male, 94.1 % Ivor-Lewis esophagectomy) were enrolled, with 13 (38.2 %) in the BTPD group, 12 (35.3 %) in the BT group and 9 (26.5 %) in the PD group. Median follow-up was of 170 days (IQR 67-604), with no differences between the three groups. No statistically significant differences were found in the baseline characteristics among the three groups, including the type of surgery with/without concurrent pyloromyotomy, indication, disease stage and neoadjuvant treatments for neoplastic patients. Despite identical TS success (100 %), BT group exhibited a higher rate of clinical failure (25 %) compared to the PD and BTPD groups (p = 0.03). Among patients who achieved CS, no difference in the recurrence rate was observed between the three groups (p = 0.47). Kaplan-Meier dysfunction analysis revealed that the BTPD group was characterized by a significatively shorter median time to refeeding of 1 day (IQR 1) compared to the other two groups (log-rank test p = 0.0051). No AEs procedures related were recorded.

Conclusions Our study reveals that BT is associated with a considerable rate of clinical failure, and that the combined BTPD treatment may offer a more rapid clinical success, maintaining an equivalent safety profile. Further prospective studies are needed to validate these findings.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP227V Endoscopic salvage therapy using LAMS in case of LAMS misdeployment during EUS-directed transgastric intervention : “Remove and Replace” or “LAMS in LAMS” ?

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DOI 10.1055/s-0044-1783237

Abstract Text We report 3 cases of misdeployment type II during an EDGI procedure, successfully treated with endoscopic salvage techniques. During the creation of the gastrogastrostomy fistula with a direct technique over a guide wire, the distal flange migrated out of the excluded stomach into the peritoneal cavity. The “Remove and Replace” technique was used in one patient and the "LAMS in LAMS" technique in the other two. Endoscopic salvage therapy was performed successfully in all the cases. The “LAMS in LAMS” technique appears to be easier than the “Remove and Replace” technique, by reducing the number of exchanges and the risk of losing the access maintained by the guide wire. Nevertheless, future studies are needed to confirm that the strength of the anastomosis after “LAMS in LAMS” technique is at least similar to an uncomplicated EDGI procedure [1–4].

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/1f4f0ef7-de1f-40eb-88e7-484965107f33/Uploads/13821_EDGImisdeploymentESGE.mp4

Conflicts of interest Prion MedicalOlympusBraun medical

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MP228 Gastroenteroanastomosis guided by endoscopy ultrasound. A feasible technique for gastric outlet obstruction

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DOI 10.1055/s-0044-1783238

Aims Lumen-apposing metal stents (LAMS) were designed for the transluminal drainage of pancreatic collections, however, new indications are emerging and displacing other techniques that were accepted as the only solution for

some diseases. The aim of this study was to analyze the feasibility of this procedure and determine the complications in our center.

Methods The first endoscopy ultrasound (EUS)-guided gastroenteroanastomosis (EUS-GEA) as a treatment for gastric outlet obstruction (GOO) was performed in January 2020. We retrospectively reviewed all LAMS (Hot AXIOS) placed in our hospital from then until July 2023.

Results 16 GE-USE were performed in 15 patients (22.5 % of the LAMS placed in that period). 8 were male (53.3 %), mean age was 72.3 years. The indication in all was GOO, secondary to neoplasia, and one case for benign duodenal stenosis secondary to chronic pancreatitis. Technical success was achieved in 15 (93.7 %) and clinical success in 100 %. There were 2 immediate complications (12.5 %) related to LAMS release failure, one solved during the procedure, the other requiring the placement of a gastric OCTS-clip, and 12 days later the EUS-GEA could be performed without incident. In addition, 2 late complications were recorded: 1 due to lack of adequate expansion of the LAMS requiring endoscopic dilatation and 1 hemorrhage. After 6 months, 1 patient required hospitalization due to migration of the stent into the stomach, and a new EUS-GEA was performed. The mean time from EUS-GEA to death is 63 days. 5 patients remain alive with a follow-up of 215 days.

Conclusions EUS-GEA is a viable procedure, with adequate results and an acceptable rate of complications, which allows other more invasive approaches such as surgery to be avoided. This is accurately why its demand has increased in our center in recent years. [1–3]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP229 Analysis of intragastric meal distribution during preoperative gastric emptying scintigraphy can predict long-term clinical response in patients with gastroparesis treated with gastric per oral endoscopic myotomy

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Aims Gastric emptying scintigraphy (GES) is the gold standard for the diagnosis of gastroparesis. However, data are lacking regarding the prognostic value of pre-operative intragastric meal distribution during GES, in patients undergoing gastric peroral endoscopic myotomy (GPOEM) for gastroparesis. This study investigated the association of GES morphologic parameters and the long-term clinical success of G-POEM.

Methods This retrospective study included patients who underwent G-POEM for refractory gastroparesis in a tertiary center with preoperative GES data. Intragastric meal distribution was measured using the proximal to distal count ratio (PDCR) at 0, 1, 2 and 4 hours (h), and the retention index (RI) was calculated. Clinical success was defined as a decrease of at least 50 % in the post-G-POEM Gastroparesis Cardinal Symptom Index (GCSI) total score.

Results In total, 77 patients were included with a mean follow-up of 40.14 months. Clinical success was observed in 54.55 % of patients. The RI was not associated with clinical success. Only PDCR at 0h (PDCR0) was associated with clinical success. In univariate analysis, the median PDCR0 was 6.0 (IQR 5.59) in patients with clinical success and 4.29 (IQR 4.51) in patients with clinical failure ($p = 0.019$). In multivariate analysis, PDCR0 > 5.25 was associated with clinical success (HR = 4.36 [1.55;12.26], $p = 0.00524$).

Conclusions This study suggests that in patients with gastroparesis, High PDCR0 value (suggestive for a preferential fundic meal distribution) during preoperative GES is associated with long-term clinical response to G-POEM.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Endoscopic diagnosis and therapy in the esophagus

27/04/2024, 10:30 – 11:30 **Science Arena: Stage 1**

MP230 Comparison of graphical user interfaces for computer-aided detection of Barrett's neoplasia

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DOI 10.1055/s-0044-1783240

Aims Despite the surge of artificial intelligence applications in endoscopy, the interaction between the endoscopist and AI system remains an underexplored aspect. This endoscopist-AI interaction ultimately may have significant impact on the performance of the AI system in daily clinical practice. The aim of this study was to compare two graphical user interfaces for a computer aided detection (CADe) system for Barrett's neoplasia.

Methods This study involved a comparative analysis between two distinct graphical user interface (GUI) designs for a computer-aided detection (CADe) system: the traditional bounding box GUI and an alternative heatmap GUI. For this study, we utilized a well-established and rigorously evaluated CADe system. A group of 37 endoscopists from 6 countries assessed 70 Barrett's esophagus videos. All videos were analyzed by the CADe system and comprised, at some point, a CADe detection, regardless of the actual presence of neoplasia. The study had two phases. Initially, videos were shown with either a bounding box or heatmap. After a two-week wash-out period, the same videos were reordered and displayed with the alternate GUI. Endoscopists marked potential neoplastic lesions and biopsy sites and provided their personal GUI preference.

Results The study found no significant difference in classification performance between the bounding box and heatmap visualizations (sensitivity 83 % vs. 83 %, $p = 0.29$; specificity 86 % vs 86 %, $p = 0.09$). Localization accuracy also did not differ significantly between the two methods, both achieving a median score of 97 %. In total, 23 endoscopists favored the heatmap, while 14 preferred the bounding box.

Conclusions Although endoscopists expressed a preference for the heatmap GUI, this was not associated with a statistical difference in performance outcomes.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP231V Fully covered stent associated to vacuum therapy (VACStent) as rescue treatment of refractory esophageal leak

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DOI 10.1055/s-0044-1783241

Abstract Text A 70y/o male, developed an esophagopleural fistula after lung surgery. Despite attempts with over the scope clip and conventional self-expandable metal stent (SEMS), persistent leakage led to VACstent placement (which combines SEMS and sponge cylinder associated to a vaccum system). VACstentresolved leakage after two weeks and one replacemen. Technical considerations include a 4-hour vacuum system interruption pre-removal (max. 7 days); and using cap and water irrigation in order to facilitate stent removal. VACstent emerges as a secure and effective treatment for esophageal fistulas, offering a novel therapeutic option with a high technical and clinical success rate.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/a6378c47-5fc1-4450-b966-ce61dbe486b8/Uploads/13821_VACSTENT_ESGE24_MEDIUMQ.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP232 Endoscopic biopsy techniques in Barrett's esophagus patients: a randomized trial with a two-by-two factorial design

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Aims Different random biopsy techniques exist for Barrett's Esophagus (BE) surveillance, of which the impact on histopathological quality is unclear. Therefore, we compared the double- versus single-biopsy method and advance-and-close or turn-and-suction technique in BE patients in a randomized clinical trial.

Methods In this multicenter, randomized factorial design trial, BE patients were randomly assigned to one of two biopsy methods (double-biopsy or single-biopsy) and techniques (advance-and-close or turn-and-suction) in a 1:1:1:1 approach, stratified by BE length and hospital. The primary endpoint of the study was the size of biopsy specimens, defined as surface area in mm^2. Secondary endpoints included the presence of muscularis mucosae, biopsy orientation and biopsy time. Assessment of histopathological parameters was done in a blinded fashion. Data was analyzed with mixed effects regression analyses with a random intercept per patient including stratification factors as fixed effects.

Results In total, 107 patients were randomized and 1024 biopsies were assessed. Biopsy size increased with 25 % from 2.68mm^2 (95 % CI 2.45-2.92) with the double-biopsy method to 3.34mm^2 (95 % CI 3.10-3.57) with the single-biopsy method (mean difference 0.65mm^2, [95 % CI 0.34-0.97]; p < 0.001). Single-method biopsies were also better-oriented (Odds Ratio [OR] 1.74 [95 % CI 1.08-2.78]; p = 0.02), although the presence of muscularis mucosae (OR 1.26, [95 % CI 0.86-1.86]; p = 0.24) and biopsy time were comparable (mean difference 2 seconds per biopsy, [95 % CI -1-4]; p = 0.26). Average biopsy sizes were 2.95mm^2 (95 % CI 2.72-3.19) and 3.08mm^2 (95 % CI 2.85-3.31) using the advance-and-close and turn-and-suction technique, respectively, translating into an increase of 4 % using the turn-and-suction technique (mean difference 0.13mm^2, [95 % CI -0.19-0.44]; p = 0.44). In addition, biopsy time was significantly longer when biopsies were taken with the turn-and-suction technique compared to the advance-and-close technique (mean difference 7 seconds per biopsy, [95 % CI 4-10]; p < 0.001), and no significant differences were seen in the presence of muscularis mucosae (OR 1.14 [95 % CI 0.77-1.69]; p = 0.50) or biopsy orientation (OR 0.77 [95 % CI 0.48-1.23]; p = 0.28).

Conclusions Biopsies in BE patients should be taken with the single-biopsy method in order to increase biopsy size and improve biopsy orientation. Although the use of the turn-and-suction technique does not result in increased biopsy quality, it may enhance the ability to take biopsies of a targeted area.

Conflicts of interest B.L.A.M. Weusten is a consultant for Pentax Medical, has received speaker's fee from Pentax Medical and has received research funding from Aqua Medical and Pentax Medical. The remaining authors declare that there is no conflict of interest.

MP233 Transjugular Intrahepatic Portosystemic Shunt improves rebleeding and survival in gastric variceal hemorrhage

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Aims Variceal hemorrhage (VH) is a life-threatening complication of liver cirrhosis. Transjugular intrahepatic portosystemic shunt (TIPS) is so far the most efficient treatment for preventing rebleeding. TIPS also improves survival in selected patients populations with VH. However, the majority of studies conducted so far have focused on esophageal VH. The aim of this study is the assessment of the efficacy of TIPS in gastric VH

Methods This study is a multicenter retrospective analysis of prospective data, including 429 patients with liver cirrhosis and variceal hemorrhage. Our primary outcome was six-month mortality. The secondary outcome was occurrence of rebleeding within six months

Results The median age was 58 years, most patients were males (72 %). 105 patients presented with gastric variceal hemorrhage (VH), of which 23 were treated with TIPS. 324 patients presented with esophageal variceal hemorrhage, of which 72 were treated with TIPS. In gastric VH, TIPS treatment significantly improved 6-month survival (4.3 vs. 24.4 %, $p = 0.034$) and rebleeding rates (4.3 vs. 23.2 %, $p = 0.042$) compared to standard of care (SOC). Similary, TIPS treatment significantly improved 6-month survival (18.1 vs. 29.8 %, $p = 0.049$) and rebleeding rates (17.9 % vs. 6.9 %, $p = 0.024$) in esophageal VH as well.

Conclusions Secondary prophylaxis with TIPS significantly reduces the risk of rebleeding and improves six-month survival rates in both gastric and esophageal variceal hemorrhage (VH).

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP234 Post-endoscopy Upper GI Cancer (PEUGIC) and root cause analysis: Oesophageal Adenocarcinoma (OA) in Auckland between 2013-2022

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DOI 10.1055/s-0044-1783244

Aims Post-endoscopy upper gastrointestinal cancers (PEUGICs) are defined as upper gastrointestinal cancers diagnosed in patients who had a gastroscopy that did not identify the cancer within 6 to 36 months prior to diagnosis. Previous studies reported rates of PEUGICs between 6.7 % to 9.4 %. We aimed to estimate the proportion of oesophageal adenocarcinomas (OA) that were PEUGICs in Auckland and to classify them by the most plausible explanations using a root cause analysis system.

Methods This is a retrospective, observational study conducted on the population of 1.65M in Auckland, New Zealand between 2013-2022. Patients with incident OA were identified from the New Zealand Cancer Registry database. Clinical data were obtained from electronic records using the Regional Clinical Portal software. Primary outcome was the incidence of OA that were PEUGICs in Auckland. Secondary outcomes included sex, ethnicity, smoking status, presence of Barrett's, stage and location of cancer, indication for gastroscopy, endoscopists details and location/timing/acuity of endoscopy. Chi-squared test was used for statistical analysis.

PEUGICs were also categorized into 5 types (A to E) using a root cause analysis system:
A – premalignant lesion detected, adequately assessed (adequate description, photographic documentation and biopsy) and appropriate follow-up decision.
B – premalignant lesion detected, adequately assessed, but inappropriate follow-up decision.
C – premalignant lesion detected, but inadequately assessed.
D – premalignant lesion not detected, index gastroscopy technically adequate to detect lesion.
E – premalignant lesion not detected, gastroscopy technically inadequate to detect lesion.
PEUGICs classified as B, C or E were considered potentially avoidable.

Results 633 cases of OA were identified. 45 (7.1 %) were PEUGICs. Higher rates of PEUGICs were observed in patients: 1) who had surveillance gastroscopy (20/38, 52.6 %) than other indications 2) with Barrett's oesophagus (33/183, 18 %) than those without 3) with stage I cancers (23/93, 24.7 %) than more advanced cancers. [1]
On root cause analysis, 12 (26.7 %) of PEUGICS were classified as A, 11 (24.4 %) were B, 12 (26.7 %) were C, 61 (3.3 %) were D and 4 (8.9 %) were E. Therefore, 27 (60 %) of PEUGICs were considered potentially avoidable and 23 (78 %) of these had known Barrett's oesophagus.

Conclusions Rates of PEUGIC OAs in Auckland were comparable to international studies.
Significant proportion of PEUGICS may be avoidable and that a large proportion of patients with Barrett's oesophagus were inadequately managed.

Conflicts of interest Authors do not have any conflict of interest to disclose.

References
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MP235 Endoscopic treatment of esophageal strictures– a retrospective analysis from a high volume academic endoscopy center

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DOI 10.1055/s-0044-1783245

Aims Esophageal strictures have various causes which basically can be divided in benign and malignant etiology. Endoscopic management offers a minimally invasive treatment method for patients with certain esophageal strictures. The aim of this study was to evaluate and compare the efficiency, based on treatment frequency and hospitalization time, and safety of bougienage, balloon dilatation and stent placement in esophageal strictures in our department.

Methods We performed a retrospective analysis of adult patients who underwent endoscopic treatment of an esophageal stricture between September 2013 and August 2023 in our tertiary academic hospital. The treatment modality (Savary-Gilliard's bougie dilation, through-the-scope balloon dilatation or stent placement) were assessed. Demographic characteristics, diagnoses, etiology of the strictures, number of intervention frequency, time of hospitalization and complications were analyzed.

Results Overall 206 patients who received endoscopic treatment were enrolled, 46 patients received bougienage, 72 patient balloon dilatation and 88 patients stent insertion. Gender and age did not differ between the groups. The median age of our patients was 64 years (IQR 55-73), 70 % were male. 76,6 % had an oncological underlying diagnosis, whereas the strictures etiology was in 57,3 % benign. Malignant strictures were treated mainly with stent insertion and benign strictures underwent mainly bougie or balloon dilatations. The median number of bougie dilatations was 2,5 sessions (IQR 1-5) and balloon dilatation 3 sessions (IQR 1-5) per patient, stent placement occured in most of our patients only once (IQR 1-2), p < 0,001. The overall hospitalization did not differ significantly between the groups while the postprocedural hospitalization per intervention was significantly shorter after bougie and balloon dilatation than after stent insertion (mean 3,2 ± 3,5 and 3,1 ± 4,7 versus 9,7 ± 13,7 days, p < 0,001). Oncologic underlying disease or a malignant stricture showed a longer postprocedural stay in hospital. Complications occurred in the bougie group in 8,7 % per patient and 2,5 % per intervention. Balloon dilatations had fewer complications with 5,6 % per patient and 1,3 % per intervention, stenting was associated with higher rates of complications (26,1 % per patient and 21,9 % per stent insertion). A subgroup analysis showed no significant difference of complication rates in malignant or benign strictures after stent insertion. Gastric cancer as underlying disease had significantly higher complication rates then esophageal cancer (50 % vs.15,7 %, p = 0,003).

Conclusions The efficiency of bougie and balloon dilatation of mainly benign strictures is similar, while complication rates tend to be lower in the balloon group. Stent therapy, which was mainly performed for malignant strictures, shows a high efficiency rate, requires mostly only a single intervention but is linked to high complication rates, particularly in patients with gastric cancer.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP236 Characteristics and causes of post-endoscopy Barrett's adenocarcinoma

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DOI 10.1055/s-0044-1783246

Aims While considerable attention has been devoted to post-colonoscopy colorectal cancer, the attributes of missed Barrett's adenocarcinoma (BAC) remain unexplored. Our aim was to elucidate the characteristics of BAC instances that eluded detection during screening endoscopy.

Methods Among the 91 patients undergoing treatment for superficial BAC at our institutions, 31 patients who had undergone endoscopy within three years before diagnosis were included. The patient cohort was stratified into two categories according to the cause of errors: "exposure errors," where no images were taken of the area where the BAC was eventually diagnosed, and "perceptual errors," where the BAC was missed even though endoscopists took endoscopic images of the location where the BAC eventually diagnosed. [1]

Results Most cases were attributed to perceptual errors (n = 22, 71 %). When analyzing subjects based on the cause of errors, lesions within long-segment Barrett's esophagus (LSBE) were more likely to be overlooked because of exposure errors (67 % vs. 18 %, P = 0.02), and lesions at the 0 to 3 o'clock position were more likely to be missed due to perceptual errors (76 % vs. 33 %, P = 0.04).

Conclusions Cancers within LSBE were mostly overlooked owing to inadequate observation. At the same time, cancers at the 0 to 3 o'clock position were frequently missed due to misdiagnosis, particularly as esophagitis. Thorough scrutiny is imperative, especially for LSBE, necessitating, for example, a minimum of 1-minute inspection time per cm of Barrett's length based on ESGE guidelines during surveillance endoscopy. Additionally, the presence of cancer should always be suspected upon encountering esophagitis in the 0-3 o'clock position.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP237 Safety and Efficacy of Conventional and Segmented Esophageal Fully Covered Self-expanding Metals Stents: a Retrospective Multicenter Case-Control Study

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DOI 10.1055/s-0044-1783247

Aims Fully covered self-expanding metal stents (fcSEMS) are commonly used to treat malignant as well as refractory benign esophageal stenosis. Segmented fcSEMS are a variant of conventional unsegmented fcSEMS that may be more migration-resistant and atraumatic. Comparison of segmented and conventional/unsegmented fcSEMS with regard to efficacy (technical success and migration rate) and severe adverse events (stent-associated bleeding and perforation).

Methods Multicenter (3 centers in Germany) retrospective case-control study. We included both benign and malignant esophageal stenosis. All patients that received an unsegmented fcSEMS in 2012-2022 and had sufficient clinical data available were included and matched 1:1 to a patient treated with a conventional fcSEMS.

Results In total 158 patients were analyzed, i.e. 79 each with conventional fcSEMS and with segmented fcSEMS. The mean follow-up was 137 days. Of the stenosis included 24 % were benign and 76 % were malignant. 17 % had a surgically altered esophageal anatomy. The technical success rate was 100 % in both groups. Stent migration occurred in 26.6 % (segmented fcSEMS) and 22.8 % (conventional fcSEMS); this difference was not statistically significant. However, severe stent-associated adverse events (clinically significant bleeding and perforation) occurred more frequently in the conventional fcSEMS compared to the segmented fcSEMS group with 3.8 % vs. 13.9 %; this difference was borderline significant (p = 0.05; chi-square with Yates' correction). In the subset with malignant disease there was no difference between the groups with regard to survival.

Conclusions In this multicentric retrospective cohort segmented fcSEMS were comparable to conventional fcSEMS in terms of technical success and efficacy while the rate of severe adverse events was reduced.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP238 Secondary Prophylaxis in Variceal Hemorrhage: In Search of the Ideal Endoscopic Timing

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DOI 10.1055/s-0044-1783248

Aims Variceal hemorrhage is a potentially fatal complication of cirrhosis. The role of endoscopy in secondary prophylaxis is well-established, but the optimal timing remains a matter of consensus. A temporal limit of 4 weeks has been suggested as a quality criterion, but its applicability is complex. The aims of our study were to compare overall mortality and 12-month follow-up mortality in patients who initiated combined therapy for secondary prophylaxis ≤ 120 days and > 120 days.

Methods A retrospective single-center study of a cirrhotic population that initiated secondary prophylaxis after an episode of variceal bleeding between January 2017 and September 2022. Patients who died, underwent transplantation, or were lost to follow-up before the first endoscopic reevaluation were excluded.

Results Included 102 patients (68 % male; mean age 60.75 ± 10.8 years), 60.8 % with Child-Pugh class B cirrhosis, mostly of alcoholic etiology (62 %). 70 % of patients initiated combined therapy for secondary prophylaxis within 120 days after the index event. The median follow-up was 13 months with an overall mortality rate of 38.2 %.

In univariate analysis, older age, higher Child, MELD, and Charlson index scores, longer disease duration, and initiation of secondary prophylaxis after 120 days significantly increased the risk of death in the first year (p < 0.10). [1–2]

In multivariate analysis, using Cox regression models and adjusting for confounding variables, the initiation of secondary prophylaxis after 120 days of the hemorrhagic event remained an independent predictor of the risk of death in the first year (HR 4.06, CI 1.75-9.43; p = 0.001). Mortality in the first year was statistically higher in patients who initiated secondary prophylaxis after 120 days of variceal rupture (44 % vs. 17 %; p = 0.004).

Conclusions Despite the retrospective nature, the initiation of dual prophylaxis after 120 days from the index event was associated with higher mortality, with an increased risk during the first 12 months of follow-up.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP239 Validation of a Virtual Reality Endoscopy Platform in Providing a Training Solution for Barrett's Esophagus

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DOI 10.1055/s-0044-1783249

Aims Virtual reality (VR) offers an unrivalled immersive education opportunity to provide guaranteed pathology exposure, reproducible instruction and robust pathology recognition key performance indicators. We developed a novel VR platform to address the heterogenous and subjective nature of endoscopy education, which may contribute to the 11.3 % published missed cancer rate of upper gastrointestinal endoscopy (EGD). Data demonstrates variability in the quality of endoscopic surveillance of Barrett's esophagus (BE) but accurate assessment is vital to detect early neoplasia and alter the grave prognosis of esophageal adenocarcinoma. We conducted a pilot validation study for a novel prototype VR endoscopy training environment for Barrett's esophagus.

Methods 32 endoscopists accredited to perform independent EGDs were recruited. Participants performed 3 virtual reality BE surveillance EGDs using Meta Quest 2 headset and were instructed to perform targeted biopsies on visible dysplasia. Feedback was collected using the validated Nasa Task Load Index (TLI), a 5-domain, 20-point Likert and the iGroup Presence Questionnaire (IPQ), a 3-domain, 7-point Likert. Intraclass co-efficients were used to assess inter-observer reliability for gastro-esophageal junction and Prague classification measurements. Visible dysplasia was present in 1/3 cases and was digitally rendered from a real case. Detection was recorded by successful biopsy of abnormal area.

Results 31/32 completed all 3 cases: 22 consultants, 6 trainee gastroenterologists, 4 nurse endoscopists. 95.7 % identified the correct diagnosis of Barrett's esophagus indicating good content validity. There was good interobserver reliability for gastro-esophageal junction and Prague measurements; intraclass co-efficient 0.84 (95 % CI 0.72 – 0.92). 2/32 (6.3 %) identified the dysplasia. There was no significant difference between consultant, trainee or nurse endoscopist (X2 p = 0.572). The VR cases demonstrated construct validity: 4/32 (12.5 %) were tertiary centre Barrett's experts who were more likely to detect the lesion (likelihood ratio = 9.4, X2 p < 0.01) and 3/32 (9.4 %) performed a

weekly Barrett's surveillance list, which was the strongest predictor of detection (likelihood ratio = 11.1, X2 < 0.001). The VR experience scored well for immersion in the IPQ for domains of spatial presence (mean = 4.97, SD = 0.86) and involvement (mean = 4.55, SD = 0.86) but less well for realism (3.22, SD = 0.84). The mean TLX scores were highest for the mental demand domain (12.5, SD = 4.65). There was no significant difference in scores between age groups (30-40, 40-50, 50-60) calculated with Kruskall Wallis test. [1]

Conclusions We have created a VR training environment for BE that demonstrates strong validity evidence and could be used to upskill already clinically independent endoscopists. This could improve early neoplasia detection and improve patient outcomes. Further studies are required with greater numbers of expert and non-expert endoscopists to assess construct validity and benchmark expert performance.

Conflicts of interest The authors have been involved in the development of the technology used in this submission.

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ERCP strictures

27/04/2024, 12:00 – 13:00 Science Arena: Stage 1

MP240V A challenging cause of recurrent acute cholangitis with massive bile duct dilation – How tricky can a tiny anemone be?

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DOI 10.1055/s-0044-1783250

Abstract Text 83 years-old woman was admitted for acute cholangitis due to biliary obstruction with mucin. MRCP revealed a lesion at the bile confluence and cholangioscopy with biopsies confirmed the diagnosis of mucinous biliary neoplasia. Given her advanced age and comorbidities, endoscopic therapy was decided with the placement of plastic stents and, later, uncovered metallic stents, which were ineffective. Direct peroral cholangioscopy with a gastroscope allowed ablation of the lesion with APC. Due to the negative clinical evolution, it was decided to place a colonic stent 90x25 mm, with technical and clinical success. We present the extensive iconography of the unusual therapeutic approach with ablation of a biliary lesion and placement of a colonic stent in the bile duct. To the best of our knowledge, this is the first time a colonic stent has been used in the biliary tract.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/37d472a7-4845-44a4-af39-d5a997149ac9/Uploads/13821_Mucinous_biliary%20neoplasia%20-%20ESGE%20Days.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP241 Long-term outcomes of fully covered self-expanding metal stents (FCSEMS) for refractory benign main pancreatic duct strictures (MPDS) in chronic pancreatitis (CP)

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Aims Fully covered self-expanding metal stents (FCSEMS) are a viable alternative to multiple plastic stents in the endoscopic step-up algorithm for symptomatic, benign, refractory, main pancreatic duct strictures (MPDS) in chronic pancreatitis (CP). Avoidance of multiple stent exchange procedures and resultant improvement in patient compliance are their added benefits. Although, short-term efficacy and safety is widely reported, there is dearth of literature on long-term outcomes. Our objective was to evaluate long-term outcomes of FCSEMS in management of MPDS.

Methods Prospective single-center study-consecutive patients with CP undergoing ERCP with FCSEMS placement for symptomatic, benign refractory MPDS (persistent stricture despite 2 plastic stent exchanges) over 11 years. Demography, stricture morphology, prior endotherapy, stent characteristics, indwelling time, technical success and immediate adverse events (AE) were recorded. Patients were evaluated at the time of stent removal and periodically thereafter every 6 months for outcomes such as radiological success (stricture resolution at stent removal), AE (stent migration, biliary obstruction, de-novo stricture, pancreatitis), long-term clinical success (pain relief and lack of need for re-intervention) and time to stricture recurrence. Patients completing at least 12 months of follow up were included for analysis.

Results 47 patients included(median age 49.5(31-39), 78.7 % males, CP etiology: 78.7 % idiopathic, 21.3 % ethanol). Stricture location (head 76.6 %, 14.9 % neck, 8.5 % proximal body). 51.1 %- concomitant PD calculi requiring prior ESWL and ductal clearance. Median duration of prior endotherapy with single/multiple plastic stents- 10 months(6-12.5); mean number of stent exchange/patient 2.12.Specially designed FCSEMS with anti-migration property and irregular cell size offering segmental radial force for prevention of side branch compression used in 85.1 %(n = 40), regular FCSEMS in 14.9 %(n = 7). Stent diameter: 8mm(34 %), 10mm (66 %); length:4cm(2.1 %),6cm(78.7 %),8cm(19.1 %). Technical success-100 %. Median indwelling time 187 days (166.75-221.5). Stent removal- scheduled(65.9 %) vs on-demand(14.9 %) [severe pain (10.6 %)/ pancreatitis with pancreatic fluid collection (4.3 %)]. Stent migration(12.8 %)-distal(8.5 %), proximal(4.3 %). Median follow-up duration 49 months(30-66). Radiological success-76.5 % [Complete 68 %, Partial 8.5 %, Persistent stricture 10.6 %]. AE- Biliary obstruction(10.6 %), de-novo stricture(10.6 %). Long-term clinical success (68.1 %,n = 32), stricture persistence/recurrence requiring re-intervention (21.3 %,n = 10). Median time to stricture recurrence 39 months (25-60). Special vs Regular FCSEMS (de-novo strictures 10 % vs 14.3 %, p = 0.74; long-term clinical success 67.5 % vs 71.4 %, p = 0.81).

Conclusions FCSEMS are associated with durable, long-term clinical success in more than two-third patients with low incidence of de-novo strictures, regardless of stent characteristics. Strictures which demonstrate resolution at the time of stent removal seldom mandate re-intervention.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP242 The use of a new fully covered self-expanding metal stent with a double anti-migration flap for the treatment of post-transplant anastomotic biliary strictures. The BASALT study group experience

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DOI 10.1055/s-0044-1783252

Aims The primary aim of the study is to evaluate the migration rate of new fully covered self-expanding metal stent with anti-migration flap (Hanaro, M.I. Tech, Seoul, Korea) in patients with anastomotic biliary stricture after liver transplantation over a period of 6 months. The secondary aim is to evaluate the clinical success of this treatment at 6 months follow up.

Methods From January 2018 to December 2021, we prospectively enrolled patients with anastomotic stricture after OLT, in 4 centers of the BASALT study group, with high experience in the endoscopic treatment of complications after liver transplantation. A novel type of biliary FCSEMS with a proximal and distal anti-migration flaps was placed by experienced endoscopists. The deployed stent diameter is 10 mm. After 6 months, stent were removed and patients were followed for at least 6 months. At the time of stent removal, cholangiography was performed to confirm resolution of the anastomotic stricture. Long-term outcome was evaluated by biochemical-clinical data (at 3 and 6 months) and MRchongiography at 6 months after removal of stent.

Results Overall, 78 patients (64 males), were enrolled in the study. All procedure was completed. At the end of the indwelling period, the migration rate was 5 % (4/74) while the dislocation rate was 15 % (11/74). Complete resolution of the stenosis was achieved in 81 % of cases (60/74). Among the 78 patients, 20 of them (25 %) developed early anastomotic stricture (before 6 months of OLT). Regarding complications, 3 of 78 patients (4 %) developed periprocedural complications (mild pancreatitis). 5 of 78 patients (6 %) experienced episodes of cholangitis, 3 of which required early removal of the FCMSEM at 109, 93 and 68 days after placement. 2/78 (2.5 %) early occlusions of the prosthesis. In 5 cases out of 78 (6 %) early removal was necessary (2 for episodes of pancreatitis, 2 for acute cholangitis, 1 for early obstruction of the stent). At the 6 months of follow up the early recurrence were treated either with a new FCSEMS or with a multistenting or went to surgery.

Conclusions A new fully covered self-expanding metal stent with a double anti-migration flap has a low risk of migration and has been shown to be effective in the treatment of anastomotic strictures after liver transplantation in the early follow up. Even if more extensive studies are necessary to confirm on a larger series of cases the data obtained and to evaluate the risks of complications linked to this new device.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP243 Safety and efficacy of biliary endoscopic balloon-based laser treatment vs. endobiliary radiofrequency ablation in swine models

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Aims Endoscopic local treatments including endobiliary radiofrequency ablation (EB-RFA) have got noticed for palliative management of cholangiocarcinoma. However, safety concerns have emerged, and clinical benefits have not yet been accurately demonstrated. We have newly developed a dilation balloon-equipped cylindrical laser light diffuser for local endoscopic treatment of cholangiocarcinoma. We focused on the comparison of the safety and efficacy of biliary endoscopic balloon-based laser treatment (B-EBLT) and EB-RFA in normal bile duct swine model.

Methods Ten mini pigs were randomly allocated into B-EBLT and EB-RFA groups. All animals underwent endoscopic retrograde cholangiography. And B-EBLT (active length; 5 mm, electrical power; 10 ~ >7 W, irradiation time; 10 sec) and EB-RFA (electrode length; 22 mm, electrical power; 7 W, ablation time; 80 sec) were performed in each 5 animals in both groups. Follow-up cholangiogram was done in all animals right after the procedures. And the bile ducts were extracted from all animals for pathologic analysis 24 hours later.

Results No bile duct perforation or hemobilia occurred in all animals of both groups. Ablation depth of biliary EBLT was about half that of EB-RFA (mean, 2.2 vs. 4.8 mm). And the ablation length of biliary EBLT was approximately 1.5 times that of active length in laser diffuser (mean, 8.4 mm) and the ablation length was like the electrode length in case of EB-RFA (mean, 18.2 mm).

Conclusions Biliary EBLT and EB-RFA showed acceptable safety profile in normal swine bile duct. And biliary EBLT showed a thinner tissue coagulation depth & more uniform necrosis than EB-RFA.

Conflicts of interest Drs. Seok Jeong and Don Haeng Lee have financial interests in TeCure, Inc. which is a laser company, although none specifically pertain to this study. [1–2]

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MP244 Enhancing endoscopic management in Chronic Pancreatitis: Assessing the Impact of Ductal Intervention on Pain, Steatorrhea, and Glycemic Status

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Aims Chronic pancreatitis is a heterogenous disease with multiple presentations and outcomes. This requires multimodal management. Pancreatic endotherapy has been established as a viable and effective modality for the management of pain. However, its impact on exocrine and endocrine insufficiency has been rarely reported. In this retrospective study, we aimed to identify predictive factors for successful endotherapy and also its impact on steatorrhea and management of diabetes in these patients.

Methods A retrospective review of prospectively maintained database of patients with chronic pancreatitis presenting to the Pancreas clinic of department of gastroenterology of a tertiary care referral centre in Western India from December 2021 till May 2023 was done. Detailed clinical, laboratory, imaging and treatment data were recorded. Pain severity was assessed at baseline and at 30 days post-procedure. Steatorrhea was assessed subjectively as presence of loose, voluminous stools. Endocrine dysfunction was defined as Hba1C>6g/dl.

Results 141 patients with chronic pancreatitis underwent ERCP for the management of pain (Mean age 35 years, 74.5 % males). Most common etiology was alcohol (n = 76 ; 53.9 %) followed by early onset idiopathic (n = 47 ; 33.3 %), Hereditary pancreatitis (n = 7 ; 5.0 %), Late onset idiopathic (n = 6 ; 4.3 %) and Trauma (n = 5 ; 3.5 %). Ductal calculi were seen 46.8 % (n = 66), dominant strictures of pancreatic duct in 33.3 % (n = 47) and 6.4 % (n = 9) had both intraductal stones and strictures. Three patients (2.1 %) had pancreas divisum and were cannulated from minor papilla. Overall technical success was achieved in 122 patients (86.5 %). 101 patients (71.6 %) reported complete relief from pain and 13 (9.2 %) had partial relief. 26 patients (18.4 %) reported no improvement in symptoms. No statistically significant association was found between the presence/absence of intraductal calculi or dominant strictures and technical or clinical success. Presence of multiple strictures required higher number of procedures. Post ERCP pancreatitis was seen in 10 (7.1 %) and 2 patients (1.4 %) had post-sphincterotomy bleed. All complications were successfully managed conservatively.56 patients (39.7 %) had steatorrhea subjectively, which improved in 2 of 56 patients (3.5 %). Prior to endotherapy pathological endocrine dysfunction was seen in 60 patients (42.5 %). Post endotherapy endocrine function improved in 15 of 60 patients (25 %) with no increase in insulin requirement.

Conclusions Endoscopic therapy in patients chronic pancreatitis and pain is effective and safe. Clinical success was achieved in two-third of patients. Neither the presence of intraductal calculi nor dominant strictures had any effect on technical or clinical success. Although there was no improvement in steatorrhea, one fourth of the patients had improvement in endocrine dysfunction. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP245 Endoscopic Papillectomy for Ampullary Lesions of minor papilla

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Aims Ampullary lesions (AL) of the minor duodenal papilla are extremely rare. Endoscopic papillectomy (EP) is a routinely used treatment for AL of the major duodenal papilla but the role of EP for minor AL has not been accurately studied.
Methods We identified 20 patients with AL of minor duodenal papilla out of the multicentric database from the ESAP study that included 1422 EPs. We used the propensity score matching (nearest-neighbor method), to match these cases with ampullary lesions of the major duodenal papilla based on age, gender, histologic subtype and size of the lesion in a 1:2-ratio. Cohorts were compared by using Chi-square or Fisher's exact test as well as Mann-Whitney U test.
Results Propensity-score-based matching identified a cohort of 60 (minor papilla 20, major papilla 40) patients with similar baseline characteristics. The most common histological subtype of lesions of minor papilla was an ampullary adenoma in 12 Patients (3 low-grade dysplasia and 9 high-grade dysplasia). Five patients revealed non-neoplastic lesions. Invasive cancer (T1a), adenomyoma and neuroendocrine neoplasia each were found in one case. The rate of complete resection, *en bloc* resection and recurrences were comparable between both groups. There were no severe complications after EP of lesions of minor papilla. One patient had a delayed bleeding that could be treated by endoscopic hemostasis and two patients showed a recurrence in surveillance endoscopy after a median follow up of 21 months (IQR 12-50).
Conclusions EP is safe and effective in AL of the minor duodenal papilla. Such lesions could be managed according to guidelines for EP of major duodenal papilla.
Conflicts of interest FUJIFILM Honoraria lectures and expert panel

MP246 Training and validation of deep learning for the detection of malignant bile duct stenosis in fluoroscopy images of endoscopic retrograde cholangiopancreatography

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Aims Accurate distinction between benign and malignant biliary strictures (BS) is challenging. The use of bile duct biopsies and brush cytology via endoscopic retrograde cholangiopancreaticography (ECRP) remains suboptimal. Single-operator cholangioscopy increases the diagnostic yield in BS but has limited availability and high costs. Convolutional neural network (CNN)-based systems have the potential to assist in the diagnostic process and improve reproducibility. Thus, we assessed the feasibility of using deep learning to differentiate BS out of fluoroscopy images during ERCP.
Methods We conducted a retrospective review of adult patients (n = 251) from three university centers in Germany (Leipzig, Dresden, Halle) who underwent an ERCP. We developed and evaluated a deep learning-based model (DenseNet) by means of fluoroscopy images. We measured the area under the receiver operating characteristic curve (AUROC) to evaluate the performance of the classifier and used saliency maps analyses to understand the decision-making process of the model.
Results In cross-validation (Leipzig cohort), malignant BS were detected with an mean AUROC of 0.88 ± 0.02. On two independent external validation cohorts (Dresden, Halle), the of the deep learned based classifier reached a mean AUROC of of 0.71 ± 0.04 and 0.74 ± 0.07, respectively. The artificial intelligence model's predictions identify plausible characteristics within the fluoroscopy images.
Conclusions By using a deep learning model, we were able to discriminate malignant BS from benign biliary conditions. Artificial intelligence improves the diagnostic yield of malignant BS and needs to be validated in prospective design.
Conflicts of interest FUJIFILM lectures for honoraria and expert panel

MP247V Complexity of endoscopic management in patients with chronic pancreatitis (CP). Rendezvous through metallic stent for removal of migrated biliary stent

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Abstract Text Patient of 71 years old with CP was admitted for painless jaundice with benign common bile duct stenosis. ERCP failed due to duodenal edema that prevented seeing the papilla so EUS drainage was requested. After unsuccessful rendezvous, cholecystoduodenostomy was performed and a rendezvous was performed through the gallbladder placing a 10 x 60 mm FCMS. In follow-up, proximal migration of the stent was observed, impossible to remove by ERCP.
CBD was punctured by EUS with a 22 G needle through the biliary stent and a novagold guidewire was advanced to the duodenum. The CBD was accessed with a monorail sphincterotome over the guidewire and a rigid guidewire was advanced to the biliary tract Papilloplasty was performed and stent was removed with rat tooth forceps and a new FCMS was placed successfully.
Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/37c03648-1401-4e90-86ce-66889ee88b62/Uploads/13821_RV_a%20trave%CC%81s%20de%20pro%CC%81tesis_2.mp4
Conflicts of interest Authors do not have any conflict of interest to disclose.

MP248 Italian survey on biliary drainage approach in patients with post-surgical anatomy

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Aims Biliary drainage (BD) in patients with altered anatomy could be obtained endoscopically with different techniques or with a percutaneous BD. Every endoscopic technique could be challenging and not clearly superior over another. Percutaneous BD is usually easily available but has several issues on long-term management. Aim of this survey is to explore which is the standard BD approach in different tertiary and non-tertiary endoscopic centers in Italy.

Methods A 34-questions online survey was sent to the i-EUS group. Survey was characterized by preliminary questions about the characteristics and quality indicators of the center. The core of the survey was focused on the first-line and alternative BD approach to patients with benign or malignant obstruction. All type of BD techniques were taken into account. Categorical variables were summarized with frequencies and proportions. [1]

Results 39 centers answered at the survey. 79.5 % of centers performs endoscopic BD in patients with altered anatomy, mainly in patients with Billroth-II (B-II) reconstruction (96.8 %) and less frequently in Roux-en-Y (RY) reconstruction (58 %). Only 15.4 % of centers usually refers for endoscopic BD to other advanced centers; however, this percentage increase to 34.2 % if the first endoscopic BD attempt fails. In case of Billroth-II reconstruction the majority of centers declare to use the duodenoscope or forward-viewing scope in both benign (48.7 % and 41 % respectively) or malignant diseases (51.3 % and 46.2 % respectively) as a first approach. However, in case of failure the BD approach become extremely heterogeneous among centers without any technique prevailing to others. Interestingly, in case of RY a significant proportion of centers declare to choose the percutaneous approach in both benign (35.1 %) and malignant obstruction (32.4 %) as a first option. In case of a previous failure attempt of BD in RY, the subsequent most used approach is the EUS-guided intervention in both benign and malignant indications (34.2 % and 36.2 % respectively).

Conclusions This survey shows that in a significant proportion of centers (20.5 %) endoscopic BD approach in patients with altered anatomy is not performed. In the other centers (79.5 %), endoscopic BD approach is extremely heterogeneous, especially in patients with Roux-en-Y reconstruction or after ERCP failure on B-II. Percutaneous BD is still taken into account by a significant proportion of centers in case of RY anatomy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP249 Impact of EUS-guided biliary drainage on the management of difficult biliary cannulation in patients with distal malignant biliary obstruction

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Aims Biliary drainage (BD) in patients with distal malignant biliary obstruction (DMBO) implies a higher risk of difficult biliary cannulation (DBC) during endoscopic retrograde cholangiopancreatography (ERCP). After standard ERCP strategies failure, the endoscopist may proceed with advanced ERCP rescue approaches (i.e. double guidewire, needle-knife precut papillotomy or fistulotomy, and transpancreatic sphincterotomy) and/or, in recent times, with endoscopic ultrasound-guided biliary drainage (EUS-BD). To date, there is a lack of real-life data on how the implementation of EUS-BD impacted the management of patients with DMBO.

Methods This was a retrospective study (01/2014 to 12/2022) of consecutive patients with DMBO that underwent ERCP for endoscopic BD in one Italian center. Patients with inaccessible papilla due to pyloric/duodenal stricture or surgically altered anatomy were excluded. Patients who underwent direct EUS-BD were also excluded. The rates of DBC, BD failure, and adverse events (AEs) were assessed. The predictive factors for AEs were also investigated through regression analysis. EUS-BD approach was performed either before or after other advanced ERCP rescue strategies have been attempted; we defined as "early" EUS-BD the case when no other strategies were attempted after standard approach (sphincterotome and guidewire) failure.

Results A total of 581 patients with DMBO were included in the study, with 307(52.8 %) matching the definition of DBC. No cases of BD failure were reported. Ninty-four patients (16,2 %) experienced procedural-related AEs. Subjects with DBA showed a higher risk for AEs ($p = 0.003$), however, patients undergoing "early" EUS-BD showed a risk of AEs comparable to those managed with standard ERCP approach ($p = 0.853$). The attempt of any advanced ERCP rescue was independently associated with the occurrence of AEs strategies ($p = 0.001$). The need for EUS-BD had no impact on AEs risk.

Conclusions According to the results of this study, we confirmed that patients with DMBO have a relevant risk of DBA. However, the opportunity of having the EUS-BD in our armamentarium give us the possibility to reach the endoscopic BD in virtually 100 % of these cases. Furthermore, despite the risk of AEs is higher in patients with DBA, this appears to be mainly related to the advanced ERCP rescue strategies, and EUS-BD showed no role in increasing this risk. Considering that when EUS-BD is performed after advanced approaches it may carry their risk of adverse events. In future, we may start considering EUS-BD as an advanced technique similar to the pre-cut, DGW and/or transpancreatic sphincterotomy, with the possibility of "early" EUS-BD to be offered in selected cases of DBC.

Conflicts of interest Authors do not have any conflict of interest to disclose.

EUS guided biliary

27/04/2024, 12:00 – 13:00 **Science Arena: Stage 2**

MP250V EUS-Directed transEnteric ERCP (EDEE) to treat a benign hepaticojejunostomy stricture in a patient with a history of surgical resection of cholangiocarcinoma

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DOI 10.1055/s-0044-1783260

Abstract Text A 78-year-old female with a history of cholangiocarcinoma diagnosed by cholangioscopy and resected surgically with roux-en-Y hepaticojejunostomy, presented with cholangitis. The collapsed Roux limb was identified on EUS and was punctured by a needle and distended with contrast. A lumen-apposing metal stent (20 mm) was deployed connecting the stomach to the Roux limb. Two weeks later, a series of ERCPs were performed through LAMS using a therapeutic endoscope with gradual dilation of the hepaticojejunostomy and eventually deploying multiple stents to both sides of the biliary tree. After achieving satisfactory dilation of the hepaticojejunostomy, no further stenting was required over the last 6 months. She has been asymptomatic.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/3acda6e9-bbea-44c6-ba9f-81cf64cdceb9/Uploads/13821_EDEE_ESGE24.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP251 Adverse events associated with endoscopic ultrasound-guided biliary drainage

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DOI 10.1055/s-0044-1783261

Aims Endoscopic ultrasound – guided biliary drainage (EUS-BD) has become widely accepted over the past several years for complicated biliary drainage when conventional endoscopic retrograde cholangiopancreatography (ERCP) is not successful or feasible due to a variety of constraints.The success rate of the procedure is between 90 % and 97 % and the complication rate is less than 10 %.The aim of our study is to evaluate the safety and efficasy of EUS-BD performed in our unit while assessing the risk of complications associated with the procedure.

Methods We performed retrospective analysis of a prospective data base from March 2020 to October 2023. The patients underwent endoscopic ultrasound biliary drainage using linear scope (Fujifilm EG- 580UT). Several procedures are possible. The procedure was tailored to the individual patient's anatomy .

Results We identified 140 patients who underwent EUS-BD during the study period (men- 75, women- 65) – 130 (92.8 %) with malignant and 10 (7.1 %) with benign disease. The medium age of the patients was 66.3 years. The technical success was 96.6 %. Adverse events were detected in 39 patients (27.9 %) The various complications that have been reported were classified into early (periprocedural) and late (postprocedural)- a week after

Periprocedural adverse events were detected in 7 (5 %) patients: 2 (1,4 %) with bleeding, 2 (1,4 %) stent migration, 1(0,7 %) with biloma, 1 (0,7 %) blood vesels canulation and 1 (0,7 %) with false tract creation.Postprocedural complications are deteced in 30 (21.4 %): 21 (15 %) with cholangitis, 3 (2.1 %) with abdominal pain, 3 (2.1 %) with bleeding, 3 (2.1 %) with pancreatitis.There were 2 deaths related to the procedure (1.4 %) in patients with advanced oncologic disease.

All cases were managed conservatively and did not require surgery, intensive care or interventional radiology. Three (2,1 %) of the periprocedural complications were solved by performing PTBD immediately after EUS-BD by the same team.

Conclusions EUS-BD is effective tool for biliary drainage both in naïve patients and those with altered biliary anatomy. Along with the possibility of emergency PTBD, it has favourable technical and clinical success rate and safety profile and therefore the potential to shift the current paradigms that define management of complicated biliary obstruction.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP252V EUS-Hepaticoduodenostomy with LAMS for recanalization of a Roux-en-Y hepaticojejunostomy stenosis

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DOI 10.1055/s-0044-1783262

Abstract Text A 29-year-old woman with former abdominal trauma underwent surgical Roux-en-Y hepatico-jejunostomy (RYHJ) and subsequent cholechysto-jejunostomy on the same loop due to hepatico-jejunostomy stricture. Eleven years later, she was admitted for cholangitis. Magnetic Resonance showed three biliary stones above the biliodigestive anastomosis. A percutaneous external drainage was initially placed, but subsequent endoscopic recanalization was proposed. A EUS-guided hepatico-duodenostomy was performed by over-the-wire placement of a Lumen Apposing Metal Stent (LAMS). After 6 months, the LAMS was replaced with plastic stents until the fistula consolidated, which remained patent and regular at the 15-month follow-up.

In stenotic RYHJ, proximity of the dilated hepatic duct to the duodenum might allow EUS-guided hepatico-duodenostomy. Easy removability of LAMS allows their use even in the benign setting.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/63b9afc9-a146-4664-a7eb-fa7be0c45486/Uploads/13821_Video_HD_ESGE.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP253V EUS-guided biliary drainage via cholecystogastrostomy followed by a rendezvous procedure to stent a difficult malignant biliary stricture

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Abstract Text A 62-year-old male presented with jaundice. Abdominal CT revealed a pancreatic mass resulting in biliary obstruction. EUS/FNB confirmed locally advanced pancreatic cancer. ERCP failed to cannulate the bile duct. EUS-guided cholecystogastrostomy was performed using a 1 cm LAMS. His LFTs normalized. Six weeks later, a pediatric endoscope was advanced inside the gallbladder. A wire was navigated through the cystic duct to the bile duct. An ERCP catheter was positioned above the stricture and helped the wire traverse the biliary stricture. The endoscope was removed keeping the wire in place. A duodenoscope was positioned facing the papilla en face. Cannulation on the side of the rendezvous wire was successful. The stricture was stented with a fully covered self-expendable metal stent.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/6f0cc876-2154-4443-a8d1-6ecd9f7aa529/Uploads/13821_GB_rendevouz%20final.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP254 Endoscopic ultrasound-guided choledochoduodenostomy versus endoscopic ultrasound-guided hepaticogastrostomy in the treatment of malignant biliary obstruction – a comparative study of single center experience

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Aims Endoscopic retrograde cholangiopancreatography is the standard procedure for treating unresectable malignant biliary obstruction/MBO/, however, it has a failure rate of 3 % up to 12 % and a rate of complications up to 6,85 %. Endoscopic ultrasound-guided biliary drainage/EUS – BD/ is a feasible alternative in palliation of MBO, applicable especially with patients with inaccessible papillae due to local invasion or surgically altered anatomy. Several techniques are available, among them hepaticogastrostomy /EUS – HGS/ and choledochoduodenostomy/EUS – CDS/ are most commonly performed.Aim:To compare the most commonly used transluminal techniques for endoscopic ultrasound-guided biliary drainage in terms of efficacy, safety, and stent patency.

Methods Retrospective analysis of a prospective database of patients undergoing EUS -BD in a single tertiary referral center. Medical records were reviewed, extrapolating data about patients` baseline characteristics, indications, procedure characteristics, and outcomes. A total of 143 EU–BD procedures were performed. 87 patients were included in the EUS-HGS group- 93,1 %(n = 81) with malignant biliary obstruction and 6.9 %(n = 6) with benign underlying dis-

ease. Of 21 patients included in the EUS–CDS group 95,24 % (n = 20) had underlying malignancy against one patient with benign disease.

Results Considering the application of EUS – BD as a first choice of drainage procedure for patients with surgically altered anatomy we had 42 patients in the HGS group (48.28 %) against 19.05 %(n = 4) for the CDS group. Evaluating results in terms of technical success rate, defined as successful stent placement – we found a 97,7 % success rate for the EUS-HGS group and 95,24 % in the EUS–CDS group. We defined clinical success as a drop in the bilirubin levels by one-half in the first week following the procedure. The results between the two groups were not significantly different – 80.46 % for the HGS against 80,95 % for the CBS group. Concerning adverse events, we found a ratio of 8.05 % for the patients undergone HGS and 4,76 % for EUS – CDS with no significant difference. The most common AE found were stent migration/n = 3/; bleeding/n = 2/ and cholangitis/n = 2/. Defining AE according to ASGE lexicon we experienced two severe AE/death due to cholangitis with acute kidney injury/ in patients with HGS. The rate of recurrent biliary obstruction and need for reinterventions was slightly higher for the HGS group – 5.75 % /n = 5/ against no case of stent occlusion in the CDS group.

Conclusions HGS and CDS for biliary drainage have comparable technical and clinical success rates, adverse events, and overall survival. Both techniques are valid alternatives after failed ERCP or as a first choice for biliary drainage especially in surgically altered anatomy, based on patients' characteristics.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP255 Safety of Endoscopic Ultrasound-guided choledocho-duodenostomy in patients with malignant obstruction and ascites

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DOI 10.1055/s-0044-1783265

Aims To evaluate the safety of endoscopic ultrasound-guided choledocho-duodenostomy (EUS-CDS) in malignant biliary obstruction (MBO) and ascites in a restrospective study.

Methods Prospectively maintained records of patients with MBO and ascites were retrospectively reviewed. Forty-four patients required EUS-CDS due to failed ERCP (28 males, 16 females). Forty-three underwent EUS-CDS, while one underwent a choledocho-gastrostomy. The data were reviewed for immediate postoperative complications (abdominal pain, fever, increase in ascites, bile leak) and technical success (defined as successful stent deployment).

Results The most common lesions were pancreatic cancer (22), ampullary cancer (9), and duodenal cancer (5). Four had distal cholangiocarcinoma, two revealed malignant lymph nodal metastases causing MBO, and one each had gastric cancer and gall bladder cancer. Ten patients (22.7 %) had ascites in the pre-procedure imaging (six had grade I ascites, and two had grade II and III ascites each). Technical success was achieved in all patients. Only two patients with ascites had bile leak, and one patient had fever responsive to antibiotics. In the group without ascites before the procedure, one had bile leak. The incidence of major adverse events was comparable across the two groups (p = 0.53).

Conclusions We hereby present the data to prove that EUS-CDS is safe in patients with MBO and ascites. Previously, EUS-guided drainage is generally presumed to be contra-indicated in the presence of ascites [1]. EUS-hepaticogastrostomy has been shown to be safe in the presence of ascites [2]. Further larger studies are needed to evaluate the long-term safety data of EUS-guided drainage and the effect on the survival of these patients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP256 Transpapillary gallbladder drainage reduces the frequency of biliopancreatic events in the waiting period for surgery, even in patients without comorbid diseases

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Aims In patients with acute cholecystitis and choledocholithiasis undergoing Endoscopic Retrograde Cholangiopancreatography (ERCP) followed by interval cholecystectomy (waiting period 6 weeks-3 months), the frequency of recurrent biliopancreatic events before surgery is reported to be 17-41.8 %. Transpapillary Gallbladder Drainage (TGBD) is indicated in this patient group if there are comorbidities preventing surgery. This study aimed to compare biliopancreatic events occurring during the waiting period for cholecystectomy between patients who underwent TGBD outside the classical indication and those who underwent ERCP for the same indication but did not receive TGBD.

Methods Between January 2018 and January 2023, 37 patients with cholecystitis due to choledocholithiasis underwent ERCP. After stone extraction from the biliary tract during the procedure, a 7 Fr 10 cm double pigtail stent was placed from the cystic duct into the common bile duct. Patients were followed with the stent in place until surgery. The control group comprised an equal number of acute cholecystitis and choledocholithiasis patients who did not meet the classical TGBD indications and did not undergo TGBD after ERCP. Biliopancreatic events occurring during the waiting period were analyzed for both groups.

Results The mean age of patients in the TGBD group was 54.54, with 56.7 % being female.In the non-TGBD group, the mean age was 63.18, with 50 % being female. The technical success rate of TGBD placement was 91.9 %. The average follow-up duration was 10 months in the TGBD group and 12 months in the control group. When comparing biliopancreatic events during the interval cholecystectomy period between the groups, biliary colic (1/37 vs.18/34, p = 0.000), cholecystitis (0/37 vs. 6/34, p = 0.009), choledocholithiasis (0/37 vs. 9/34,p = 0.001), cholangitis (0/37 vs. 3/34, p = 0.105), and pancreatitis (0/37 vs. 2/34, p = 0.226) wereobserved [1].

Conclusions TGBD reduces the frequency of biliopancreatic events during the waiting periodfor surgery in patients with acute cholecystitis and choledocholithiasis, eligible for interval cholecystectomy without significant comorbidities.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP257V Lumen apposing-metal stent misdeployment during EUS-guided choledochoduodenostomy: EUS-guided gallbladder drainage and duodenal clip placement as salvage procedure

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DOI 10.1055/s-0044-1783267

Abstract Text A 71-year-old female was admitted for painless jaundice. Computed tomography scan showed resectable-borderline pancreatic head tumor with dilation of the biliary tree. Biliary drainage by ERCP failed. So, we performed an EUS-guided choledochoduodenostomy (EUS-CDS) using a lu-

men-apposing metal stent with an electrocautery-enhanced delivery system (EC-LAMS). During the procedure there was a LAMS misdeployment with a choledochoduodenal perforation. This adverse event was treated by EUS-guided gallbladder drainage (EUS-GBD) for biliary decompression, followed by the closure of the duodenal wall defect using a clip.
Management of LAMS misdeployment during EUS-CDS by EUS-GBD and duodenal clip placement was effective.
Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/1b7bd8a1-8807-424c-8996-98b838e1b307/Uploads/13821_ESGE_EUS_CDS_LAMS_misdeployment.mp4
Conflicts of interest Carlos Chavarría has received honoraria as speaker from Boston Scientific. The rest of authors disclosed no financial relationship.

MP258V Two cases of endoscopic treatment of bile duct stones after bariatric Roux-en-Y gastric bypass through Endoscopic Ultrasound-Directed Transgastric ERCP (EDGE)

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DOI 10.1055/s-0044-1783268
Abstract Text ERCP is technically challenging after Roux-en-Y gastric bypass (RYGB). The authors describe two cases of endoscopic ultrasound-directed transgastric ERCP (EDGE) with video iconography. A 62-year-old male and a 37-year-old female were admitted with choledocholithiasis after RYGB. Considering the altered anatomy, EDGE was proposed. After EUS puncture of the excluded stomach, a 20-mm LAMS was deployed creating a gastro-gastrostomy. After 7 days, papilla could be reached with a duodenoscope, endoscopic sphincterotomy was performed and biliary stones removed. LAMS was extrated after 4 weeks and gastric fistula closed using argon plasma and over-the-scope clip. No complications were observed and both patients remained asymptomatic during follow-up. The authors highlight the effectiveness and safety of this minimally invasive technique to treat pancreaticobiliary disorders after RYGB [1–5].
Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/45d76568-2246-45ba-b51d-07a6c46797b5/Uploads/13821_Edge_video.mp4
Conflicts of interest Authors do not have any conflict of interest to disclose.
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MP259V EUS-guided Hepaticogastrostomy in Patients with Whipple's procedure: Deceived by Fluoroscopy, EUS vision to rescue

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Abstract Text Endoscopic ultrasound guided hepatico-gastrostomy (EUS-HGS) is technically challenging procedure. Guidewire manipulation during EUS-HGS is a rate limiting step. Primarily we rely on fluoroscopy during guidewire manipulation. In this case we have demonstrated how EUS vision helped in accurate positioning of guidewire when it got mal-positioned into hepatic parenchyma during EUS HGS.
A-65year-male with history of Whipple's procedure for pancreas head malignancy 2 years back, presented with recurrence of tumor at porta hepatis and obstructive jaundice. He had hilar stricture with surgically altered anatomy. In this patient we have performed EUS-HGS and troubleshooted mal-positioned guidewire using EUS vision.
Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/5cde13f7-0089-41db-b03d-e7a932345af0/Uploads/13821_Radhika_Chavan%20HGS%20esge%201.mp4
Conflicts of interest Authors do not have any conflict of interest to disclose.

The way from a polyp to a cancer in the colon

27/04/2024, 13:30 – 14:30 **Science Arena: Stage 2**

MP260 Endoscopic and echoendoscopic surveillance for anal cancer follow up: a single center experience

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DOI 10.1055/s-0044-1783270
Aims to evaluate a scheduled endoscopic and echoendoscopic protocol for anal cancer (AC) follow up
Methods A retrospective analysis of endoscopic, radiological, laboratory and clinical data were carried out from January 2005 to December 2022 in a single onchological center, including only cases with at last 5 years of follow up.
Results We identified 64 patients with diagnosis of anal cancer. Most of them were female (82%) with mean age at diagnosis of 59 years. The most prevalent histological subtype was squamous cell- carcinoma. All patients were evaluated by a multy discipinary team composed by endoscopist, radiation oncologists, medical oncologists, surgeons, radiologists and pathologists. Primary tumor assessment was performed by RMI and echendoscopic evaluation, followed by CT to complete stadiation.Staging was T1 in 10% of AC, 35% T2, 35% T3, 20% T4.Combination of chemoradiotherapy and radiotherapy was the most common first line treatment (79%). Local excision followed by chemoradiotherapy plus radiotherapy was performed in 14% of cases, while resection alone was performed in 7% of patients.After treatment' s conclusion an RMI, endoscopic and echo- endoscopic follow up was performed. Patients were evaluated by endoscopic and echoendoscopic exams every three months in the first year, subsequently every six months in the next two years, and then underwent annual controls untill five years post treatment.We reported three cases (4.6%) of local recrudescence after a combination treatment of chemoradiotherapy and radiotherapy. All recrudescences were detected by endoscopic and echoendoscopic exams within one from the first therapy and managed by local escission. No other recrudescences were reported during the next follow up.
Conclusions our data show a low number of relapse after treatment for AC, which can occur in the first 12 months of follow up. No other cases of recurrence were reported during the extendend follow up.Post therapy recurrence of AC are rare but possible. A scheduled endoscopic and echoendoscopic follow up protocol especially in the first years of follow up is useful to intercept early local recurrence in order to provide an adeguate surveillance.
Conflicts of interest Authors do not have any conflict of interest to disclose.

MP261 A clinical predictive model can effectively stratify the risk of colorectal cancer among patients undergoing colonoscopy. A multicenter, prospective derivation and validation study

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Aims The balance between prescription of colonoscopies and healthcare resources has been broken, leading to long waiting lists. Therefore, a triage system to define colonoscopy priority is needed. We recently demonstrated that Italian RAO criteria can effectively stratify CRC risk among patients undergoing colonoscopy. Aim of the present study was to derive and validate a predictive model for colorectal cancer (CRC) based on such criteria, aiming to risk-stratify patients undergoing colonoscopy outside organized screening programs.

Methods Multicenter prospective observational study involving 19 institutions in Italy. Consecutive adult patients undergoing colonoscopy for clinical indication outside CRC screening organized programs were eligible to be included. Colonoscopies with inadequate bowel cleansing and incomplete were excluded. RAO criteria comprise three groups of priority to colonoscopy based on different clinical indications, namely "B" (high priority), "D" (intermediate priority), and "P" (low priority). Predictive models for CRC were derived through multivariable logistic regression analysis, and their discriminant power assessed according to area under the ROC curve (AUROC). Three cohorts were considered, i.e. (i) the derivation cohort including patients enrolled in Emilia-Romagna Centers in three consecutive months for each Center between November 2022 and May 2023, (ii) the geographical validation cohort in Italy outside Emilia-Romagna, and (iii) the prospective validation cohort in Emilia-Romagna from June to September 2023.

Results 6,691 patients (mean age 61 years, female sex 50.2 %) were included. CRC was found in 183 (2.7 %) cases. In the derivation cohort, predictive models for CRC diagnosis included: age 60-69 (OR 3.54, CI 1.28-9.82) and age ≥ 70 (OR 4.91, CI 1.87-12.89), no previous colonoscopy in 10 years (OR 2.94, CI 1.61-5.26), and indication to colonoscopy alternatively according to RAO "D" (OR 5.42, CI 2.25-13.08) and "B" (OR 24.80, CI 11.05-55.69) priority criteria, ASGE criteria (OR 2.54, CI 1.54-4.2) or presence of ≥ 1 alarm feature (OR 2.52, CI 1.57-4.06). The model based on RAO criteria outperformed models based on ASGE criteria or alarm features, yielding significantly higher discriminant power (AUROC 0.85 vs. 0.75 and 0.74, $p < 0.01$). The model was geographically and prospectively validated with AUROC 0.81 and 0.84, respectively. We defined three CRC risk categories, i.e. low-risk (CRC < 1 %), intermediate-risk (CRC 1-5 %), and high-risk (CRC ≥ 5 %). When considering both the validation cohorts (n = 4,158), if we gave low priority to low-risk patients, we would delay 2,412 (58 %) colonoscopies with 20 (0.8 %) CRCs, whereas giving high priority to high-risk patients would anticipate 636 (15.3 %) colonoscopies with 69 (10.9 %) CRCs.

Conclusions We derived a simple and accurate clinical prediction tool to stratify patient CRC risk before prescribing colonoscopy, with two-fold implication: on one hand, it might help clinicians in appropriate prescription of colonoscopy; on the other hand, it might help healthcare providers to define the priority of colonoscopies and optimize resource allocation. [1–3]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP262 Molecular profiles of malignant colorectal polyps within the European Polyp Surveillance Study (EPOS IV)

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Aims To assess the risk of recurrence and metastasis following endoscopic or surgical treatment of pT1 colorectal cancer (CRC), as well as the necessity for invasive surgical treatment, utilizing conventional and novel histological molecular markers.

Methods We analyzed patients who were treated for T1 CRC in a tertiary center and had follow up of at least 3 years or underwent surgical resection and whose resection specimens were available. Conventional histopathological biomarkers, including (1) grade of differentiation, (2) lymphovascular invasion (LVI), (3) tumor budding (TB), (4) neuroinvasion, (5) resection margin and novel histopathological biomarkers: (1) poorly differentiated clusters (PDCs), (2) desmoplastic response, (3) tumor infiltrating lymphocytes (CD8), (4) CDX2, (5) mesenchymal bcatenin expression, (6) aSMA, (7) TGFb, (8) SNAIL, (9) GREM. Clinical surveillance data post-treatment was retrieved, and the primary endpoint was oncological failure, defined as CRC recurrence, local, and regional metastases. Histopathological evaluation was blinded to previous histology results and clinical surveillance data.

Results The analysis included 75 patients with pT1 cancer. The mean age of patients was 65 years, with 66 % being male. Primary surgery was performed in 35 % of cases, while 65 % underwent endoscopic resection. Lesions were distributed, with 24 % in the rectum and 76 % in the colon, with a mean lesion size of 24.2 mm, and 64 % of pedunculated morphology. The distribution of other assessed histopathological risk factors is presented in Table 1. After the median follow-up time of 3.7 years 8 patients (10.6 %) with recurrence, local or regional metastases were observed. Apart from conventional histological biomarkers, two novel biomarkers were identified: desmoplastic reaction at invasive front (present in 6 (75 %) patients with an endpoint) and tumor infiltrating lymphocytes (CD8) at invasive front (absent in all patients with an endpoint). All patients with an endpoint exhibited at least one positive conventional or novel risk factor (sensitivity of 100 %, specificity of 39 %). Most patients (63 %) with an endpoint had a combination of multiple positive histological risk factors of high tumor budding, high grade differentiation, lymphovascular invasion and desmoplastic reaction at invasive front.

Conclusions We identified two novel histological biomarkers which combined with conventional ones could optimize endoscopic treatment of T1 CRC.

1. Table 1. Distribution of the histopathological risk factors assessed in the cohort. Differentiation Low grade (%) 70 (93.3 %) High grade (%) 5 (6.7 %) Invasion depth for pedunculated morphology (%) Haggitt 1 12 (25 %) Haggitt 2 17 (35.4 %) Haggitt 3 16 (33.3 %) Haggitt 4 3 (6.3 %) Angioinvasion HE staining * Positive (%) 10 (13.3 %) Negative (%) 65 (86.7 %) Lymphovascular invasion, HE staining * Positive (%) 15 (20 %) Negative (%) 60 (80 %) Lymphovascular invasion, D2-40 Positive (%) 9 (12 %) Negative (%) 66 (88 %) Neuroinvasion Positive (%) 2 (2.7 %) Negative (%) 73 (97.3 %) Budding > 10, high 26 (34.7 %) Low or medium 49 (65.3 %) PDC high, > 10 2 (2.7 %) low, < 10 73 (97.3 %) Desmoplastic response Positive (%) 39 (52 %) Negative (%) 36 (48 %) Inflammatory infiltrate, CD8 Positive (%) 9 (12 %) Negative (%) 66 (88 %) CDX2 invasive front 48 (64 %) nuclear 27 (36 %) Betacatenin mesenchymal None 55 (73.3 %) Nuclear/Membranous 20 (26.7 %) AlfaSMA None 30 (40 %) Nuclear/Membranous 45 (60 %) TGFB None 34 (45.3 %) cytoplastmatic/membranous 41 (54.7 %) SNAIL Positive (%) 69 (92 %) Negative (%) 6 (8 %) GREM Positive (%) 72 (96 %) Negative (%) 3 (4 %) * hematoxylin and eosin

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP263 Lymphovascular invasion in the submucosa is the main predictor of lymph node involvement in endoscopically treated T1 colorectal cancer

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Aims There is conflicting evidence whether the commonly used risk factors for recurrence after local resection of early colorectal cancer are equally important. For example, a Dutch meta-analysis reported the low importance of the depth of submucosal infiltration in this setting (Zwager, 2022). On the other hand, a Japanese national cohort was recently used to design a nomogram, but in their hands, submucosal depth of infiltration is of great importance (Kajiwara, 2023).

The aim of the present study was to evaluate the predictors of lymph node metastasis in our large monocentric cohort of 802 colorectal ESD's with very long follow-up.

Methods We queried our prospectively completed database of colorectal ESD performed at our institution, to identify all patients with pT1 sm + adenocarcinoma. This database contains, demographic, diagnostic endoscopy (location, polyp classification), therapeutic endoscopy (technique, complications) data, pathology results as well as additional surgery results (if performed), and the patients' clinical and endoscopic follow-up.

Results We identified 81 patients with pT1 sm + adenocarcinoma (46 male, mean age 69.2 ± 10.3). Median follow-up time was 40 months, range 0-14 years. Thirty-five patients (43.2 %) underwent surgical resection with lymphadenectomy, while 45 (55.5 %) were followed-up, either because there was no indication for surgery (26/45 ; 57.8 %) or because of patients preferences or comorbidities (19/45 ; 42.2 %). As expected, patients of the follow-up group were older (mean age 70.6 versus 65.5 years).

In the surgery group, 4 patients had lymph node metastasis on the resection specimen (11 %) : all of them had lympho-vascular invasion on the ESD specimen, 3 had also deep submucosal invasion , 1 had high-grade tumor budding. None of the 19 patients with deep submucosal invasion as only risk factor had lymph node metastasis. [1–3]

In the follow-up group, no patient experienced nodal or metastatic recurrence. Four (8.8 %) had local recurrence : all of them had deep submucosal invasion, 3 had undergone piecemeal resection because of failed ESD, 2 had positive margins. Nine patients of this group had deep submucosal invasion as only risk factor for lymph node metastasis.

Conclusions Lymphovascular invasion is the main predictor of lymph node involvement in endoscopically treated T1 CRC. Deep submucosal invasion is not a strong risk factor for lymph node metastasis, and should *in se* not be considered an indication for additional surgery in the absence of other risk factors.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP264 The Double-Edged Sword of YouTube: Impact on Colon Cancer Screening Knowledge

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Aims This research aims to scrutinize the content and quality of Colon Cancer screening awareness videos on YouTube, a platform widely utilized for health information. Despite boasting over a billion users, the absence of an editorial process on YouTube doesn't guarantee reliable content. The study finds that patient information is often substandard, potentially resulting in misinformation. This is especially concerning for crucial topics like Colon Cancer screening, as misleading information can distort users' perception and understanding of their health conditions.

Methods Our search on YouTube employed "Colon Cancer Screening Awareness" as a key phrase. We dismissed videos that weren't in English, were irrelevant, or lacked sound. We noted characteristics like views, subscribers, likes, dislikes, comments, and whether they were scholarly or personal. The videos were then classified as trustworthy or not based on their scientific accuracy. We evaluated the video quality using the DISCERN tool, Global Quality Score (GQS), and Patient Education Materials Assessment Tool (PEMAT). The consensus among seven researchers on DISCERN, GQS, and PEMAT was determined using intraclass correlation.

Results Of the 76 YouTube videos that came up in our search and were subsequently evaluated, 33 (43.4 %) were categorized as academic, while 43 (56.5 %) were classified as private. It was observed that educational videos were accord-

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ed higher DISCERN scores than their private counterparts (31 ± 11.6 vs. 22.64 ± 10.07, p = 0.018). A similar trend was witnessed regarding the Global Quality Score, which was higher for academic videos (3.1 vs. 2.2, p < 0.05). The PEMAT score also favored educational videos (4.5 vs. 3.9, p = 0.022). Moreover, a strong positive correlation was discovered between academic videos and the number of likes (OR: 1.5, P < 0.001), subscribers (OR:1.78, P < 0.0001), and views (OR:1.09, P < 0.001).

Conclusions This study highlights the pressing need for more reliable and scientifically accurate content on YouTube regarding colon cancer screening. Despite YouTube's vast user base, our research reveals the disappointing quality of information, often leading to misinformation. Academic videos scored higher on all evaluation measures (DISCERN, GQS, PEMAT) and had more views, likes, and subscribers than private ones. This underscores the importance of promoting and prioritizing scientifically accurate, high-quality educational videos to benefit public health.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP265 Overtreatment in the prevention of colorectal cancer. Comparison between surgical and endoscopic treatment of benign colonic polyps

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Aims Describe adverse events according to the AGREE (endoscopic group) and Clavien-Dindo (surgical group) classification and to compare the rates of serious complications, hospital stay and mortality in both groups. Describe the characteristics of benign complex lesions treated endoscopically and surgically, and determine the prevalence of early and late recurrence within the endoscopic treatment group.

Methods Single-centre case-control study. Benign colonic lesions treated surgically between 2004-2021 were included and compared with a control cohort of complex lesions (SMSA ≥ 3) treated endoscopically between 2018-2022. One case per control matched by sex, age (+/-1 year), SMSA level and size was included. Propensity Score Matching was used. Severe surgical adverse events were defined as: suture dehiscence, infections and collections, ostomy, eventration/evisceration or paralytic ileus; and endoscopic: haemorrhage with admission or perforation. They were described using the AGREE (endoscopic group) and Clavien-Dindo (surgical group) classification.

Results 196 patients with benign lesions were included, 98 in each group, the majority being adenomas (88.8 %). In the endoscopic group, with a mean age of 67.5 years(± 9.7), 53.1 % of the lesions were flat (0-IIa), with a mean size of 40(± 17.3) mm. In the surgical group, the mean age was 66.8 years(± 11.4), 41.8 % were sessile (0-Is), with a mean size of 41(± 17.0) mm. There were no differences between groups in the level of difficulty estimated according to the "SMSA" system. Complications were more frequent in the surgical treatment group, OR = 4.90 (95 % CI 2.58- 9.26). The need for reoperation (34.7 % vs. 1.0 %) and the mean length of stay (10 vs. 0 days) were also higher in the surgical vs. endoscopic group (p < 0.001). Three (3.1 %) patients in the surgical group and one (1.0 %) in the endoscopic group died (p = 0.19) due to procedural complications. Twelve cases of recurrence were detected, eight cases in the first revision (66.6 %) and four cases in the second revision.

Conclusions Endoscopic treatment of benign complex colonic lesions (SMSA ≥ 3) is associated with fewer complications, need for surgical reoperation and shorter hospital stay compared with surgery. The prevalence of recurrence of endoscopically removed colonic lesions is low and most are detected at the first colonoscopy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP266 Linguistic Factors in Healthcare: Analyzing Their Influence on Colon Cancer Readmission Rates

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DOI 10.1055/s-0044-1783276

Aims Patients who have been diagnosed with colon cancer encounter various obstacles and require a comprehensive comprehension of their diagnosis and suggested treatments to make knowledgeable decisions about their medical care. Health literacy plays a critical role in this process, and insufficient health literacy skills may lead to unfavorable outcomes. The readmission rate for colon cancer may be impacted by language barriers and low literacy rates, raising concerns. This study aims to analyze patients' language's 30-day, 60-day, and 90-day readmission rates and identify any health equity disparities.

Methods We retrospectively analyzed data from Colon Cancer patients admitted to our hospital between 2009 and 2022, collecting information on their comorbidities, insurance status, surgical procedures, Cancer grade, colonoscopy reports, and baseline characteristics. Deceased patients were excluded. Patients were categorized based on language, and propensity score matching was used to balance baseline characteristics. We used a Chi-Square test and Pearson correlation to explore the relationship between language and readmission rates.

Results A total of 701 patients were enrolled in the study, with 341(49 %) being female and the average median age group being 55.6 ± 5.9 years. Patients were categorized into four groups based on language, and baseline characteristics were balanced using propensity score matching. Patients who spoke English had significantly higher readmission rates at 30 days than those who spoke other languages (47vs.7vs.15 vs.14, P = 0.025, Correlation: 0.68). Additionally, English speakers had significantly higher readmission rates at 60 days than those who spoke other languages (25vs.3vs.8 vs.30,P < 0.01, Correlation:0.78). English speakers also had significantly higher readmission rates at 90 days than those who spoke other languages (10vs.2 vs.11 vs.10,P < 0.01, Correlation: 0.55). Among Non-English speakers, patients with insurance status had significantly higher readmission rates than those without insurance (OR: 3.025,p < 0.021)

Conclusions This study is a promising step toward investigating the influence of language barriers on readmission rates in colon cancer patients. Recognizing linguistic abilities is critical for addressing healthcare disparities. Additional research on language discordance is necessary to mitigate the risk of language-discordant clinical encounters and the adverse health outcomes related to such encounters

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP267 Prevalence and risk factors for sessile serrated lesions: an Australian experience

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DOI 10.1055/s-0044-1783277

Aims Sessile serrated lesions (SSL) are known precursors for colorectal cancer. Their prevalence varies across populations. We aimed to investigate their prevalence and characteristics in the Australian population. In particular, we assessed their prevalence in the younger cohort and follow up findings of patients identified to have at least one SSL at index colonoscopy.

Methods All adult patients undergoing colonoscopy at the Gold Coast Health Service between 2015 and 2021 were retrospectively identified. Analysis included patient demographics, number of SSLs, location, size, dysplasia, and follow-up findings.

Results Within 20,293 procedures analysed, 6058 (29.9 %) SSLs were identified in 4095 patients. 54.5 % were female. 13.3 % were under 40 years and 14.0 % were between 40-49 years. 69.5 % of lesions were found in the proximal colon

and 17.8 % were > 10mm in size. Dysplasia was present in 2.9 %. 1490 patients (36.4 %) underwent a follow-up procedure of whom 533 (35.8 %) had another SSL detected. 24 (4.5 %) patients had dysplasia on follow-up.

Conclusions There is a high prevalence of SSLs in the regional Australian population. Colorectal cancer screening commences at 50 years in Australia and interestingly, our study identified 27 % of these polyps in the < 50 years cohort. Aetiological factors for a high prevalence of SSLs require further investigation to identify individuals who are at higher risk of incidence and progression.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP268 Evaluation Of P53 And Wnt Pathway In Colorectal Tissues Of Patients With Inflmammatory Bowel Disease And Adenomatous Polyps

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Aims The purpose of this study is to novel routine screening and diagnostic methods (Endoscopic biopsy and immunohistochemistry) and find reliable molecular markers for early diagnosis of colorectal cancer among high-risk patients – with inflammatory bowel disease or colorectal polyps. Mutations of the tumor suppressor gene *P53* is an early event of ulcerative colitis-associated carcinogenesis, in which the mutation of the *P53* gene is preceded by the loss of heterozygosity in the development of colon cancer. Inactivation of the APC tumour suppressor results in the constitutive activation of canonical WNT pathway transcriptional effector ß-catenin, along with induction of WNT feedback inhibitors. Hypothesis statement: beta catenin and p53 could be established as markers for dysplasia screeniing and early colorectal cancer detection.

Methods For immunohistochemistry (IHC) analyzes in sporadic carcinoma, tissue samples of 20 patients were selected, where the expression of beta-catenin and p53 was investigated. According to their diagnoses, 5 are colorectal adenomas, while 15 are adenocarcinomas. For the research of IHC markers in IBD patients, 33 colorectal tissue samples were selected, where the expression of p53 and beta catenin were also analyzed. IHC examinations in colorectal adenoma/carcinoma samples were performed at the "Laboratory for Molecular Chemoprevention – Christian Doppler" – Medical University of Vienna. IHC examinations in the preparations of patients with IBD were performed at the "Laboratory for Tumor Pathology" – Medical University of Vienna.

Results Beta catenin: nuclear expression was found in 40 % of adenocarcinomas, while no nuclear staining of beta catenin was found in any of the adenoma samples; the difference was statistically significant (p = 0.000). In only 10 % of patients with IBD, a low positive expression of beta catenin in the nucleus was found. Both grade 3 adenocarcinomas showed nuclear expression of β-catenin, while in grade 1 and 2 adenocarcinomas, nuclear expression was found in only 30 % of cases. The expression has also been correlated with the stage of the tumor: stage I adenocarcinomas have no nuclear expression, while in stage II and III adenocarcinomas, nuclear expression has been found in 67 % of cases. Nuclear positivity of p53 was found in 53 % of patients, with a significant difference with its expression in adenomas, where it was 20 % (p = 0.034).

Conclusions According to our findings, molecular monitoring may advance the clinical management of the risk of neoplasia in patients with precancerous conditions. IHC analysis of beta-catenin in colorectal samples of patients with polyps, respectively p53 in tissues of patients with IBD, will enable the investigation of the earliest pathways of CRC development. Research on molecular detection will advance early diagnosis and remains to reconfirm the importance of relevant markers for a high performance in the timely detection of neoplastic lesions. [1–7]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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MP269 Diverticular disease is not a risk factor for low polyp detection rate, in consecutive colonoscopies

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DOI 10.1055/s-0044-1783279

Aims To compare the Polyp Detection Rate (PDR) in consecutive colonoscopies,among patients with and without diverticulosis

Methods In this retrospective cohort study, all colonoscopies performed in our departmentfrom January 2007-December 2015 were reviewed. Patients with at least two consecutivecolonoscopies were included. Patients how had advanced polyps or neoplasm in their indexcolonoscopy, were excluded from the study. Study population were divided into two groups:diverticulosis group (DG) and non-diverticulosis group (NDG).The T-test and Mann-Whitney test were used to assess the primary endpoint, which was thecomparison of PDR between the two groups. Additionally, these tests were utilized toevaluate secondary endpoints, specifically the comparison of polyp size and histology-between the two groups.

Results 414 patients met the inclusion criteria, 139 were in the DG and 275 in the NDG.There was no significant difference in the number of polyps detected in each colonoscopybetween the two groups (2 polyps in both groups in the first and second and forthcolonoscopies p = 0.22, p = 0.06, p = 0.79 respectively and 2 polyps in the NDG vs. 1 in the DGin the third colonoscopy, p = 0.067). Among NDG, larger polyps were found in the first andsecond colonoscopy, compared to DG (8 mm vs. 6 mm, p = 0.002, and 6mm vs. 5mm,p = 0.046, respectively).In the second colonoscopy, the NDG group had a higher rate of tubulovillous adenoma withlow grade dysplasia (30 % in the NDG vs. 16 % in the DG p value = 0.0002). In the 3 rd and 4 thconsecutive colonoscopies the NDG has a higher rate of tubular adenoma with low gradedysplasia (65 % vs. 50 % p = 0.0028 and 63 % vs. 41 % p = 0.004, respectively) [1–20].

Conclusions This is the first study to explore the association between diverticulosis and thedetection of colonic polyps in consecutive colonoscopies. Our study demonstrates that diverticulosis is not associated with lower polyp detection ratein follow-up colonoscopies. Moreover, diverticulosis appears to be a protective factor againstfor the development of adenomas in consecutive colonoscopies.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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EUS guided collections/pancreas

27/04/2024, 13:30 – 14:30 **Science Arena: Stage 1**

MP270 EUS-guided dRainagE of post-Surgical versus post-PancrEatitis coLLections (RESPELL): a prospective comparison of clinical presentations and therapeutic outcomes

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DOI 10.1055/s-0044-1783280

Aims Post-surgical fluid collections (pS-FC) following gastrointestinal and pancreatobiliary surgeries are commonly suitable for EUS-guided drainage (FCD). However, no prospective evidence exists, including comparisons with post-pancreatitis collections (pP-FC).

Methods All consecutive candidates to EUS-FCD with either Lumen Apposing Metal Stents (LAMS) or Double-pigtail Plastic Stents (DPPS) between 2020-2023 were included in a Prospective Registry of Therapeutic EUS (PROTECT), with scheduled monthly follow-up. Technical and Clinical success, Adverse events (AEs) and Recurrences were prospectively recorded.

Results Sixty patients (23 pS and 37 pP-FC, including 19 pseudocysts and 18 walled-off necrosis) were included. At baseline, pS-FC presented with reduced necrotic content (absent or < 30 % in 74 % vs 43 %, p = 0.03) and rarer paracolic gutter extension (4.3 % vs. 27 %, p = 0.03), whilst presenting more frequently infection versus symptoms as the indication for drainage (78.3 % vs 27 %, p = 0.0001).
pS-FC were drained earlier (30 [15-49] days) than pP-FC (87 [40-300] days, p = 0.0012), more frequently adopting DPPS rather than LAMS (78.3 % vs 45.9 %, p = 0.01). Technical success (100 % in both groups) and Clinical success (91 % vs 94 %, p = 0.7) were similar, whereas pS-FCD tended to lower AEs (17.4 % vs 37.8 %, p = 0.09, mostly infections in the pP-FC group) and recurrences (0 % vs 8.6 %, p = 0.2). Need for any step-up was significantly less frequent (17.4 % vs. 54.1 %, p = 0.005), as well as the need for necrosectomies. Post-procedural survival was similar (log-rank test p = 0.9).

Conclusions In this prospective comparison, post-surgical collections showed less complex morphology but higher infection rate than post-pancreatitis collections. Despite similar harder outcomes, pS-FC were drained earlier (50 % before 4 weeks from onset), mostly adopting plastic stents, and showed lower probability of any step-up, and negligible risk of recurrence.
NCT04813055

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP271 Inter-Rater Reliability in Assessment of Solid Necrotic Tissue Extent in Pancreatic Walled-Off Necrosis on CT and MRI

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Aims In the treatment of pancreatic walled-off necrosis (WON), the extent of solid necrotic tissue is believed to impact the necessity for endoscopic necrosectomy. However, the ideal imaging modality for assessing this extent has yet to be determined. We aimed to determine the inter-rater reliability of the extent of solid necrotic tissue within WON using magnetic resonance imaging (MRI) and contrast enhanced computed tomography (CT) and to assess the correlation with the overall duration of endoscopic procedures.

Methods In this study, we included all patients from a recent randomized controlled trial who had both an MRI and a CT a maximum of 7 days before the index drainage procedure. [1] Three physicians (PNS, ABJ, and SEJ) independently assessed each radiological procedure and categorized the extent of solid necrotic tissue in the WON into three groups: less than 30 %, 30-50 %, or more than 50 % of solid necrotic tissue. The main outcome was the inter-rater reliability evaluated by the intraclass correlation coefficient (ICC). Secondly, we analyzed the correlation between the extent of the solid necrotic tissue and the total duration of endoscopic procedures to achieve clinical resolution of the WON calculated by Spearman correlation.

Results Between August 2019 and February 2022, 28 patients with WON were included. The median age of the patients was 61 years (IQR 50-69 years) and 23 (83 %) were males. The median largest diameter of the WON was 23.5 cm (IQR 19.3-30.1 cm). The ICC for MRI assessments was 0.81 (95 % CI: 0.59-0.91), indicating moderate to good correlation, while ICC for CT was 0.37 (95 % CI: -0.18-0.68), suggesting poor correlation.

Two observers identified a statistically significant correlation between the extent of solid necrotic tissue assessed on MRI and the total duration of endoscopic procedures (rho values of 0.54, $p < 0.01$ and 0.47, $p = 0.012$), while one observer failed to find a significant correlation (rho = 0.20, $p = 0.3$). One observer found a statistically significant correlation between the estimated extent of solid necrotic tissue on CT and total duration of endoscopic procedures (0.60, $p < 0.01$), however, two observers did not (rho 0.24, $p = 0.22$ and 0.32, $p = 0.10$).

Conclusions The inter-rater reliability for assessing solid necrotic tissue extent in WON was higher on MRI than CT. Furthermore, MRI findings correlated better with procedure duration compared to CT.

Conflicts of interest Authors do not have any conflict of interest to disclose.

References

[1] Karstensen JG, Novovic S, Hansen EF et al. EUS-guided drainage of large walled-off pancreatic necroses using plastic versus lumen-apposing metal stents: a single-centre randomised controlled trial. Gut 2023; 72 (6): 1167–1173

MP272 The QNI classification's usefulness for Pancreatic Necrosis Management

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Aims Pancreatic walled-off necrosis (WON) is a severe complication of acute pancreatitis that often needs endoscopic intervention for drainage and necrosectomy. The selection of stent type for endoscopic drainage remains a topic of debate, with plastic pigtail stents (PPS) and lumen-apposing metal stents (LAMS) emerging as commonly used options. However, strict criteria for stent selection are not available yet. The aim of our study was to evaluate the utility of the QNI classification in guiding the selection of stent types for WON drainage.

Methods A retrospective analysis of a prospectively collected database was conducted on patients who underwent endoscopic drainage and necrosectomy for symptomatic pancreatic WON at one tertiary referral center between January 2022 and September 2023. Patients were divided into two groups based on the QNI classification: Group 1 included patients with WON affecting 1 quadrant or 2 quadrants with less than 30 % necrosis and Group 2 included patients with WON involving 3 quadrants, 2 quadrants with 30 % necrosis, or 1 quadrant with more than 60 % necrosis and concurrent infection at the time of the index intervention. The choice of LAMS or plastic stent was performed by the endoscopist according to the WON features. Necrosectomy was performed when signs of infections after WON drainage were present. Resolution was considered in clinically asymptomatic patients with WON < 30 mm at the 3-month imaging follow-up.

Results Forty-eight patients were included in the study, with a mean age of 55.7 (± 12.28) and a male-to-female ratio of 2.4:1, 20 patients in Group 1 and 28 patients in Group 2. The indications for drainage (pain, weight loss) were similar in both groups, except for infection, which was more frequent in Group 2 (28 % vs 5 %, $p = 0.03$). LAMS were used more frequently in group 2 than in group 1 (64 % vs 40 %, $p = 0.001$). The mean number of endoscopic procedures was 1.7 for Group 1 and 3 for Group 2 ($p = 0.01$), with the interval until the first necrosectomy session being 20.3 days in Group 1 and 12.4 days in Group 2 ($p = 0.05$). Clinical resolution at 3 months showed no significant difference between groups, with rates of 90 % vs 85 % ($p = 0.87$), and the complication rates was 10 % vs 14.2 % (p = NS). Percutaneous drainage was done in 0 % vs 7.14 % cases, and surgery was required in 0 % vs 7.1 % of cases. [1]

Conclusions The newly proposed QNI classification system is useful in guiding the patient selection for LAMS placement and for a multidisciplinary management. This approach implies more therapeutic efforts in patients with severe QNI scores but may lead to similar outcomes in these patients as in those with mild QNI scores.

Conflicts of interest Authors do not have any conflict of interest to disclose.

References

[1] Baroud S, Chandrasekhara V, Storm AC et al. Novel classification system for walled-off necrosis: a step toward standardized nomenclature and risk-stratification framework. Gastrointestinal Endoscopy 2023; 97 (2): 300–308

MP273 Multimodal therapy for previously manipulated lesions using EndoRotor

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Aims Scarred polyps (Manipulated lesions) can occur after the treatment of large polyps with conventional endoscopic and/or surgical treatments. These polyps are difficult to treat endoscopically due to underlying fibrosis with poor lifting. In this study we aim to evaluate the effectiveness and the safety of powered endoscopic resection (EndoRotor) treatment in managing scarred polyps

Methods A retrospective study was conducted on consecutive patients who received EndoRotor treatment for scarred non-malignant polyps between September 2020 – August 2023 in Nottingham University Hospitals NHS Trust. Patients with scarred polyps were reviewed during the complex polyp multi-disciplinary team meeting, and then were allocated to a dedicated EndoRotor session in the Endoscopy department.nOnly those patients who attended at least two sessions were included in the study. EndoRotor treatment was performed with/without Endoscopic Mucosal Resection and with/without Argon Plasma Coagulation. In case of endoscopic eradication, biopsies were taken for confirmation.

The primary outcomes were the complete polyp eradication rate with histological confirmation, and safety of the EndoRotor. Secondary outcomes were: number of treatment sessions to completely eradicate the scarred polyp, patient demographics, total number and types of previous treatments received,

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histology, polyp location and size, and any associated complications during or after treatment.

Results 42 patients fulfilling the inclusion criteria were included in the study, 93 % (39) had complete polyp eradication within three sessions. Complete polyp eradication was achieved in one session for 19 % (8 patients), in two sessions for 55 % (23 patients), and in three sessions for 19 % (8 patients). The average time required for complete polyp eradication was 200 days. In three patients (7 %), polyp eradication was not achieved: one patient opted for surgery after one session, one patient became unwell from haematological malignancy and became too frail, and one is still awaiting a fourth session. Two patients required haemostasis with coagulation forceps for intraprocedural bleeding. One patient had significant delayed bleeding and required blood transfusion after an EndoRotor session on a polyp near the anal verge. There were no other reported complications. The results of the other variables are described in Table 1. An example of healthy scar following one treatment with EMR and EndoRotor is shown in Figure 1.

Conclusions EndoRotor, as monotherapy or combined therapy, appears to be a safe and effective modality for the treatment of scarred polyps after previous endoscopic, or even after previous transanal surgical interventions, with the great majority of patients achieving complete polyp eradication within three sessions.

Conflicts of interest Dr Adolfo Parra-Blanco is a consultant for Lumendi company and is an advisory member for Lumendi, received speaker honorarium from Interscope and from 3D Matrix. No Competing interest for the other authors

MP274V Salvage procedure for LAMS complete misdeployment during EUS-guided pancreatic pseudocyst drainage

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Abstract Text A 51-year-old female with liver cirrhosis and recurrent alcohol-induced pancreatitis was admitted for abdominal pain and vomiting. An MRI confirmed a large pancreatic pseudocyst. An EUS-guided drainage using a lumen-apposing metal stent (LAMS) was performed. Due to a LAMS complete misdeployment during the procedure, a second LAMS was placed, and the LAMS retrieval inside the pseudocyst was delayed. After seven days, the stent was removed endoscopically.

Four weeks later a CT scan showed resolution of the pseudocyst and the LAMS was removed.

In conclusion, delayed endoscopic salvage of a misdeployed LAMS during EUS-guided pancreatic pseudocyst drainage was safe and effective.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/0d5d011d-f458-4201-a1f2-0756ef2f1558/Uploads/13821_ESGE_PSQ_LAMS_misdeployment_final.mp4

Conflicts of interest Carlos Chavarría has received honoraria as speaker from Boston Scientific. The rest of authors disclosed no financial relationship.

MP275 Optimal removal time of lumen-apposing metal stent (LAMS) after placement for drainage of pancreatic fluid collections: a systematic review and meta-analysis

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Aims Lumen-apposing metal stents (LAMS) are broadly used for endoscopic ultrasound (EUS)-guided drainage of pancreatic fluid collections (PFCs), mainly for walled-off pancreatic necrosis (WOPN). LAMS removal is still a debate due to the risk of adverse events (AEs) related to long-term stent retention, even because no clear evidence-based indications for removal timing are present in literature. Our aim was to perform a systematic review with meta-analysis on the removal time of LAMS in patients undergoing EUS-guided PFCs drainage

Methods Our systematic search was performed in PubMed/Medline, Embase and Cochrane Library through January 2023 by two independent reviewers(M.M. and G.E.M.R.) for studies assessing outcomes of LAMS placed for drainage of PFCs. The primary outcome was the incidence of AEs after early(within 3-4 weeks) vs late(after 3-4 weeks) LAMS removal. A random-effect model was applied for pooling results. Heterogeneity was expressed as I^2. The RoB2 tool and Newcastle Ottawa scale (NOS) were used to assess quality of the studies.

Results Overall, 3 studies (1 RCTs and 2 retrospective studies, 1565 patients) were included in the analysis. Mean age was 57,13 ± 3,97 and males were 61,9 % (n = 969). PFCs included WOPN, which were 839 (53,6 %), and pseudocysts(PC), which were 726(46,4 %). Pooled AEs rate was higher in the late vs the early removal group (RR, 1.70; 95 % CI, 0.77-3.75; p = 0.019; I^2 = 57 %). According to the RoB2 tool and NOS, none of the studies included was of poor methodological quality. Median follow up among studies was 235 days.

Conclusions According to available evidence, early removal of the LAMS (within 3-4 weeks) after LAMS placement for drainage of pancreatic fluid collections is associated with lower rate of AEs. As a consequence, early removal of LAMS should be preferred, when feasible. However, robust data are still missing, so further analysis including a larger number of studies is needed

Conflicts of interest None

MP276 PROTOCOL trial – PROTon pump inhibitors and stent OCclusion rate Of Lumen apposing metal stents

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DOI 10.1055/s-0044-1783286

Aims A common complication of acute pancreatitis is the formation of walled off necroses (WON) in 5-10 % of all cases. In case of suprainfection of a necrosis the mortality rises from 2 % to 28 %. Lumen apposing metal stents (LAMS) are widely used to drain necroses. LAMS-occlusion however, remains a considerable complication. Nevertheless, the prevalence, clinical impact and management of LAMS-occlusion-related complications remains uncertain. Moreover, the German guidelines for management of acute pancreatitis do not specify whether a concomitant proton pump inhibitor (PPI)-therapy should be discontinued or not. A recent study suggested a lower rate of LAMS-occlusions, but a higher number of required endoscopic necrosectomies upon concomitant PPI-therapy. Thus, current data are conflicting. Therefore, we aim to perform an expert survey and a multicentric retrospective cohort study to elucidate the clinical importance of LAMS-occlusion-related complications and the effect of PPI-discontinuation on occlusion.

Methods First, a survey was sent to European centers with special expertise in endoscopic pancreatology. Here, we assessed the number of LAMS applied annually, whether the experts consider occlusion a clinically relevant complication, and whether there are standard operating procedures for LAMS-occlusion and PPI-discontinuation. Second, we performed a European-wide retrospective multicenter cohort study to assess patient data for PPI intake, frequency of LAMS-occlusion and other complications using a REDCap database. This study is supported by the AG Pancreas (DGVS).

Results We will present preliminary results from the expert survey and the retrospective cohort study. Until date, 62 European interventional endoscopists have answered our survey. Following a power calculation of an initial in-house dataset we aim to include 639 patients in the retrospective cohort study. Thus far, 443 cases have been entered into our eCRF.

Conclusions The PROTOCOL trial is the largest trial investigating the potential association between LAMS-occlusion and PPI-intake to date. We will present preliminary of both the expert survey and the retrospective cohort study.

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP277V Management of splenic arterial bleeding as intraprocedural complication during pseudocyst drainage using LAMS

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Abstract Text A 56y/o male with a pancreatic pseudocyst following an episode of acute pancreatitis presents abdominal pain, so endoscopic drainage with LAMS is decided. Upon LAMS release, significant hemorrhagic content and an actively bleeding vascular structure are observed. An urgent angio-CT scan reveals active arterial bleeding from the splenic artery, leading to radioembolization. LAMS is removed, and the gastric perforation is closed with OTCS. Subsequently, the patient achieves clinical stability.

Intraprocedural arterial bleeding is a rare and life-threatening complication demanding rapid, multidisciplinary management, emphasizing the necessity of performing this technique exclusively in reference centers.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/2e16a2b5-83fa-4ed8-9274-2208bcabf9d9/Uploads/13821_BLEEDING_LAMS_MQ.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP278V Endoscopic treatment of a Mirizzi Syndrome type 5 with cholecystobiliary and cholecystocolonic fistulas

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Abstract Text A 90-year-old male presented with recurrent biliary sepsis secondary to Mirizzi Syndrome (MS) with cholecystobiliary (CB) and cholecystocolonic (CC) fistulas. A digital cholangioscopy showed a 2.5-cm gallbladder stone impacted at the common hepatic duct (CHD). Electrohydraulic lithotripsy was performed from the CHD through the CB fistula, clearing the fistula tract. A guidewire was advanced from the CHD through both fistulas leaving its distal end within the colonic lumen. A fully covered metal biliary stent was deployed through the CB fistula into the gallbladder to maintain the CB fistulous tract patent for future procedures. Colonoscopy was immediately performed. The distal end of the guidewire was followed to locate the CC fistula. An over the scope clip was deployed successfully closing the colonic orifice. The patient has remained asymptomatic after 1 year since the procedure.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/a152071a-63ba-409c-8ff3-6cf40d95c07c/Uploads/13821_Mirizzy_Syndrome%20type%205.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

MP279 Endoscopic necrosectomy in walled-off pancreatic necrosis after EUS-guided drainage with LAMS: a predictive clinical index

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DOI 10.1055/s-0044-1783289

Aims Endoscopic ultrasound (EUS) placement of Lumen-Apposing Metal Stent (LAMS) represents a minimally invasive treatment for Walled-off pancreatic necrosis (WOPN). Further endoscopic necrosectomy procedures (EN) may be required in a subset of patients, mostly in order to achieve infection control. The possibility of an early identification of the subjects requiring EN may therefore represent a valuable clue in the management of patients with WOPN.

Methods We retrospectively retrieved from our database all patients that underwent EUS-guided WOPN drainage using LAMS in the past 10 years (between 2013 and 2023) at our tertiary referral center. By means of a discriminant-function statistical analysis, we identified a predictive necrosectomy score able to provide an "a priori" identification of the subjects requiring EN. Only laboratory variables were taken into consideration, namely those showing a statistical difference (single tail $p > 0.10$, one-way variance analysis) between the group of patients that required EN and the remaining subjects. We evaluated the clinical reliability (global accuracy, predictive value and overall statistical significance) of the provided score.

Results We retrieved 106 subjects that underwent EUS-guided drainage of WOPN with LAMS (31 females and 75 males, age 23-85 years old). In 48 patients (45.3 % of cases) EN was required and performed after LAMS placement. The analysis of our data allowed to calculate the individual Necrosectomy-index, by means of the simple function:

Necrosectomy-index = PLT (kU/mm3) * 0.06 + PT % * 0.37 + Hb (g/dL) * 5.1 – 103.

The proposed Necrosectomy-index may provide an early discrimination of the subset of patients requiring EN after LAMS placement identified by an index < 0, from those with no need of EN with an index > 0. To further increase the predictive ability of the model, the subjects with a Necrosectomy-index equal to 0 may be considered as "undeterminable". The adopted model showed a remarkable statistical significance ($p < 0.007$), with a global accuracy of 77.3 %, a 90.9 % predictive value for positivity and 63.6 % for negativity respectively.

Conclusions Our statistical analysis confirms that the proposed Necrosectomy-index has a reliable intrinsic predictive value and may therefore represent a powerful clinical tool in the early identification of patients requiring EN among those with WOPN treated with LAMS placement. Since our data have been evaluated in a large retrospective series, a further validation in an adequate prospective-designed study is however required.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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ePoster

eP001 Retrospective analysis of patient with upper gastrointestinal (UGI) bleed in a district general hospital

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DOI 10.1055/s-0044-1783290

Aims We performed a retrospective audit of the demographics, risk stratification, timing of endoscopy, endoscopy therapy and post endoscopy management among patients presented with upper gastrointestinal (UGI) bleed as new admission and as inpatient at George Eliot NHS Trust; It provides hospital services to a population of 350,000 [1].

Methods Retrospective analysis of patient physical record was undertaken. We included patients who have had gastroscopy for haematemesis or melena performed as inpatient from April 2022 to April 2023. Patient with bleeding post Endoscopy Retrograde Cholangiography (ERCP) was excluded. Date and time of bleeding was recorded as when patients were noticed have feature of UGI bleed and not necessarily when they were referred to endoscopist.

Results 71 patients were included in the study. 63 % (n = 45) were male and 37 % (n = 26) were male. The median age was 74. 90 % (n = 64) were new admissions to hospital and 10 % (n = 7) were inpatient when upper GI bleed occur. 27 % (n = 19) presented with haematemesis, 73 % (n = 52) had melena and 17 % (n = 12) experienced syncope. 14 % (n = 10) had ischaemic heart disease and 14 % (n = 10) had known liver cirrhosis. 10 % (n = 7) were on non-steroidal anti-inflammatory drug, 21 % (n = 15) were on antiplatelet and 32 % (n = 22) was on anticoagulation medications on admission. In terms of documentation, 39 % (n = 28) had alcohol history documented during clerking, 48 % (n = 34) had digital rectal examination finding documented and 21 % (n = 15) had Glasgow Blatchford Score (GBS) documented on clerking.

In terms of pre-endoscopy care, 86 % (n = 61) were given intravenous Proton Pump Inhibitor (PPI). 90 % (n = 9) of potential variceal bleed received Terlipressin. Average haemagoblin count was 93 g/dL. and 44 % (n = 31) received Packed Red Call Transfusion. 20 % (n = 14) was transfused even though the haemoglobin count was 70 g/dL. 23 % (n = 16) had active bleeding on endoscopy and in 63 % (n = 10), dual therapy was given. 3 patient required repeat endoscopy but 1 of them was for biopsy purpose. 15 % (n = 11) had Rockall Risk Score documented. 24 % (n = 17) patients had peptic ulcer disease and 71 % (n = 12) were put on 72 hours PPI infusion post procedure. 4 patients were prescribed Helicobacter Pylori eradication regime. Among 4 patients with varix, 75 % (n = 3) was on Terlipressin after endoscopy, 100 % (n = 4) was on antibiotics and 1 was started on beta blocker post procedure as secondary prevention. 80 % (n = 4) of those with gastric ulcer had follow up endoscopy. There were 3 deaths within 30 days post endoscopy but none due to upper GI bleed.

Conclusions Recent introduction of new clerking template should improve the documentations. Implementation of the Glasgow Blatchford score pre-endoscopy and Rockall score post- endoscopy should be encouraged to risk stratify patients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

References

[1] George Eliot Hospital NHS Trust. Trust Overview. Available from: https://www.geh.nhs.uk/about-us/about-us#:~:text = About %20George %20Eliot %20Hospital,of %20more %20than %20300 %2C000 %20people

eP002 Retrospective analysis of patient with upper gastrointestinal (UGI) bleed service and time to endoscopy in a district general hospital

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DOI 10.1055/s-0044-1783291

Aims We performed a retrospective audit of the endoscopic findings and timing to endoscopy, among patients presented with upper gastrointestinal (UGI) bleed as new admission and as inpatient at George Eliot NHS Trust; It provides hospital services to a population of 350,000 [1].

Methods Retrospective analysis of patient physical record was undertaken. We included patients who have had gastroscopy for haematemesis or melena performed as inpatient from April 2022 to April 2023. Patient with bleeding post Endoscopy Retrograde Cholangiography (ERCP) was excluded. Date and time of bleeding was recorded as when patients were noticed have feature of UGI bleed and not necessarily when they were referred to endoscopist.

Results 71 patients were included in the study. . 63 % (n = 45) were male and 37 % (n = 26) were male. The median age was 74. 24 % (n = 17) had normal findings on endoscopy. 17 % (n = 12) had duodenal ulcer, 14 %, (n = 10) had portal hypertensive gastropathy, 11 % (n = 8) had gastritis, 10 % had gastric outlet obstruction, 7 % (n = 5) had gastric cancer and 7 % (n = 5) had gastric ulcer. Important to note is that some patients have more than one pathology. The endoscopic diagnoses are shown in figure 1. The median time to endoscopy was 22 hours. The average time was 47 hours with a range of within 1 hour to 264 hours. 52 % (n = 37) was performed within 24 hours since the onset of presentation. 41 % (n = 29) were performed as out of hours procedures. 86 % (n = 61) were given sedation for the procedure. There were 3 deaths within 30 days post endoscopy but none due to upper GI bleed. In retrospect, we looked into patient who had delayed endoscopy (> 24 hours) following bleeding presentation. Among 32 patients, 15 had multiple comorbidities and frail who presented with other medical problem such as heart failure, pneumonia or sepsis). 10 patients had endoscopy for queried melena but other evidence was not suggestive of UGIB such as no raise in urea or drop in haemoglobin. 4 patient had history of alcohol excess or alcohol related liver disease presented with coffee ground vomiting and raised urea but no melena, which again was not classical presentation for acute upper GI bleeding

Conclusions The median time would probably reflect a more accurate time to endoscopy which was 22 hours. Nevertheless, our mortality remained low particularly with patients who had delayed endoscopy (> 24 hours). The data also suggest that time taken to resuscitate and medically optimise patients is of crucial importance in patient survival rather than the focus on time to endoscopy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

References

[1] George Eliot Hospital NHS Trust. Trust Overview. Available from: https://www.geh.nhs.uk/about-us/about-us#:~:text = About %20George %20Eliot %20Hospital,of %20more %20than %20300 %2C000 %20people

eP003 Acute upper gastrointestinal bleeding (UGI) endoscopy service during and after COVID-19

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DOI 10.1055/s-0044-1783292

Aims COVID-19 pandemic has significantly affected the gastroenterology services especially the endoscopy service. Gastroenterologist have been redeployed to other duties such as general medicine, COVID patient care and non-patient facing duties[1]. We compared the acute upper gastrointestinal bleeding (UGI) bleed service during COVID-19 from 2020 to 2022 with after COVID-19 in 2023. The aim was to evaluate the aspects which are different between during and after COVID-19 pandemic.

Methods Retrospective analysis of the audit performed on a district general hospital from 2020 to 2022 which was during COVID-19 pandemic and 2023 which was post COVID, We compared the demographics, comorbidities, medications and endoscopy diagnoses for patients presented with UGI bleed. Pa-

tient with bleeding post Endoscopic Retrograde Cholangiography (ERCP) was excluded.

Results Figure 1. Comparison of clinical history, pre-endoscopy, endoscopy and post-endoscopy care from year 2020 to year 2023.

The patients presented with haematemesis or melena or both were included for each year. There was no significant difference in number of patients presented for each year. Although the documentation of clinical history has improved during the years of COVID-19, it has worsened after the end of COVID-19 pandemic and that include documentation of alcohol history, digital rectal examination and Glasgow Blatchford Score. In term of pre-endoscopy, the administration of PPI Terlipressin and antibiotics were consistent for all the years although there was slight drop in percentage for PPI administration in the year of 2023.Time to endoscopy has been in the range of 16 to 22 hours for all the years but 2023 was shown to have the longest time to endoscopy with a median of 22 years. Median was use for this years since there was outliers for some of the endoscopy procedures with the longest time to endoscopy of around 260 hours.

Important to note is that despite the slight delay in time to endoscopy post COVID-19, there was no 30-day mortality due to bleeding. The rebleeding rate was also comparable with that before COVID-19.

Conclusions We aim to implement upper GI bleed bundle in Emergency department and to be used during initial clerking. There should be discussion with endoscopist for every patient suspected with upper gastrointestinal bleeding to triage and expediate the endoscopic procedure. Importantly, despite the increased in timing to endoscopy and proportion of patients having endoscopy more than 24 hours post bleeding, the mortality rate was 0 %.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP004 Enlarged fistulotomy of the papilla as access to the biliary tract during ERCP

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Aims The objective of this study was to demonstrate the EFP technique involving longitudinal incision and transverse enlargement with dissection in layers of the papilla to access the common bile duct, to show its efficiency and safety, and also to rescue cases of cannulation failure through the papillary ostium as well as cases of access failure by EFP on the first attempt, facilitating cannulation on the second attempt.

Methods This was a cross-sectional study, with retrospective data collection from 2233 ERCP exams with 528 EFP procedures, conducted from November 2006 to August 2022 analysis of results regarding cannulation success and complications. [1–19]

Results 528 patients underwent EFP on the first attempt, with success in 465 cases (88.06 %) and 63 failures (11.94 %). Of these failures, 33 patients (52.38 %) returned for a second EFP attempt, with success in 30 cases (90.9 %) and failure in 3 cases (9.1 %). Ultimately, deep bile duct cannulation was achieved in 93.75 % of EFP procedures, and cannulation failure occurred in 33 cases (6.25 %).

Conclusions EFP showed efficiency in rescuing cases of failure of cannulation through the papillary ostium. Compared to conventional papillotomy (CP), EFP induced no post-ERCP pancreatitis, no cases of perforation or false tract but resulted in higher minor bleeding rates. The procedure was also focused on rescuing cases of access failure by EFP, making a posterior approach through EFP easier in the second attempt. EFP is safe, effective, low risk and associated with few comorbidities.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP005 Measuring knowledge confidence in policy, procedure, and pathophysiology of CJD and vCJD in Belfast Trust endoscopy suites

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DOI 10.1055/s-0044-1783294

Aims This is a quality improvement study regarding nurses at Royal Victoria Hospital and Belfast City Hospital in Belfast, Northern Ireland, UK.

The specific aim of this study was to employ a short and effective learning module for the endoscopy nurses in Belfast about CJD and vCJD. The module included what the disease is, what the risks are, and what procedure to follow if a patient presents at risk of CJD or vCJD. To assess whether the education module was effective, there was a pre-module survey handed out, and a post-module survey, to quantitatively measure the self-reported improvement of nurse understanding in regards to the nature and risk of CJD and vCJD.

Methods This cross-sectional prospective study tested the CJD and vCJD education module's effectiveness as experienced by the nursing staff. A convenience sample of all registered nurses in the endoscopy department were included in the surveys. The surveys gave the nurse an opportunity to self-report their confidence levels on the topic of CJD, knowledge of the procedure to follow if a patient is at risk of CJD, and speaking to management if in need of assistance. This was measured using the Likert scale, 0 for not confident at all, 10 for extremely confident. [1–7]

The Education module intended to explain core information about CJD and vCJD so that nurses in endoscopy would have a better understanding of the disease and its transmission risks, highlight why we implement CJD questions in admissions and pre-procedure, and the current procedure in initiating a CJD risk assessment with a senior staff member, if a patient presents as at risk of CJD or vCJD.

Results The results of the pre and post survey revealed a significant increase in the confidence of knowledge relating to CJD in these endoscopy nurses.

Conclusions This brief education module appears to have been effective in informing nurses about CJD and the reasons there are policies provided for dealing with patients that may be at risk.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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[7] there will be more. I am still finishing the paper

ePO06 Prevention of peri-interventional hypothermia during endoscopic retrograde cholangiopancreatography using a forced-air heating system

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Aims Perioperative hypothermia is associated with significant complications, and can be prevented by forced-air heating systems (FAHS). If hypothermia occurs during prolonged endoscopic sedation is unclear and prevention measures are not addressed in endoscopic sedation guidelines. We hypothesized that hypothermia also occurs in a significant proportion of patients undergoing endoscopic interventions associated with longer sedation times such as endoscopic retrograde cholangiopancreaticography (ERCP), and that FAHS may prevent it.

Methods In this observational study, each patient received two consecutive ERCPs, the first ERCP following current standard of care without FAHS (SOC group) and a consecutive ERCP with FAHS (FAHS group). The primary endpoint was maximum body temperature difference during sedation.

Results 24 patients were included. Median (IQR) maximum body temperature difference was − 0.9 °C (− 1.2; − 0.4) in the SOC and − 0.1 °C (− 0.2; 0) in the FAHS group ($p < 0.001$). Median body temperature was lower in the SOC compared with the FAHS group after 20, 30, 40 and 50 minutes of sedation. A reduction in body temperature of > 1 °C ($p < 0.001$) and a reduction below 36 °C ($p = 0.01$) occurred more often in the SOC than in the FAHS group. FAHS was independently associated with reduced risk of hypothermia ($p = 0.006$). More patients experienced freezing in the SOC group ($p = 0.004$). Hemodynmaic and respiratory stability were comparable in both groups.

Conclusions Hypothermia occurred in the majority of patients undergoing prolonged endoscopic sedation without active temperature control. FAHS was associated with higher temperature stability during sedation and better patient comfort.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP007 Risk factors for treatment failure after endoscopic balloon dilation in managing anastomosis stricture from colorectal surgery

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DOI 10.1055/s-0044-1783296

Aims Anastomosis stricture after colorectal surgery is priorly managed by endoscopic balloon dilation (EBD). However, although EBD is effective, patients are frequently required with additional procedures or surgical interventions. The aim of this study was to assess the long-term outcomes in patients who received EBD for anastomosis stricture occurring after surgery for colorectal cancer.

Methods Between January 2000 and December 2022, a total of 173 patients who received curative surgery for colorectal cancer underwent EBD for managing anastomosis stricture. Medical records were retrospectively reviewed to assess the outcomes and risk factors for restenosis and permanent stoma.

Results Of the 173 patients, 41 (23.7 %) presented with restenosis. Median time to recurrence was 49 [37-150] days. Sixteen patients (10.2 %) needed permanent stoma due to treatment failure. The restenosis group was significantly younger (55.6 years *versus* 60.8 years), located in the rectum (80.5 % *versus* 57.6 %) with more manual anastomosis (24.4 % *versus* 5.3 %), had higher percentage of neoadjuvant radiotherapy (34.1 % *versus* 5.3 %, $p < 0.001$) compared to no restenosis group. Multivariable analysis showed neoadjuvant radiotherapy (adjusted HR, 2.48; 95 % CI, 1.03-5.95) and cerebrovascular accident/transient ischemic attack (adjusted HR, 6.97; 95 % CI, 2.15-22.54) as independent prognostic factors for restenosis, respectively. All patients with permanent stoma were male, and the proportion of patients who received neoadjuvant radioatherpy (56.3 % versus 7.6 %, $p < 0.001$) and those who underwent manual anastomosis (31.3 % versus 7.6 %, $p < 0.011$) were significantly higher in patients with permanent stoma, compared to those who did no, respectively.

Conclusions Patients receiving neoadjuvant radiotherapy are most prone to restenosis after EBD in managing anastomosis stricture. Neoadjuvant radiotherapy is also a strong risk factor for receiving permanent stomas due to treatment failure.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP008 The result of gastric cancer screening program initiation in Mongolia where burdens high incidence of gastric cancer

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DOI 10.1055/s-0044-1783297

Aims We aimed to conduct the multi-center study for determining the gastric cancer and its background diseases among Mongolian population in the initial period of screening survey.

Methods We conducted cross cross-sectional study based on Mongolian nationwide endoscopic screening programs among above 35 years peoples. We collected data from 28 endoscopy centers from Ulaanbaatar city and provinces of Mongolia from May 2022 to May 2023. The primary outcome of this study was to determine the incidence rate of gastric cancer based on endoscopic diagnosis. Further the secondary outcome of the research among detected gastric cancer patients, the distribution of cancer type was based on histopathological examination. The histological criteria for gastric cancer and its precursor diseases were based on using WHO guidelines classification, gastric cancer can be classified as adenocarcinoma (including dysplasia high grade, poorly cohesive and tubular adenocarcinoma, well, moderate, poor differentiated adenocarcinoma), signet ring-cell carcinoma, and undifferentiated carcinoma. Low-grade dysplasia and atypical cells are classified as precursor diseases.

Results Total 34581 participants' data were collected from 28 endoscopy centers from Ulaanbaatar city and province hospitals. The age range of the study participants was 35 to 93 years old. In terms of gender, 56.8 % are men and 43.13 % are women. The mean with SD age of people diagnosed with gastric cancer was 61.56 ± 1.11, while the mean with SD age of healthy people was 53.84 ± 0.29 (*p-value* 0.0001). Among them 262 (0.8 %) patients were diagnosed with gastric cancer based on endoscopic examination. The proportion of suspected early-stage gastric cancer cases was n = 135 (51.5 %) based on endoscopic examination.

Conclusions The initiation of Mongolian national gastric cancer screening program was useful to detect gastric cancer in early stage. Therefore, national screening program should be continuous.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP009 AAPRI is superior to APRI in Predicting Oesophageal Varices in Primary Biliary Cholangitis Patients

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Aims While the Aspartate-Aminotransferase (AST) to Platelet Ratio Index (APRI) is a well-established non-invasive biomarker for fibrosis assessment in primary biliary cholangitis (PBC) and a potential predictor of oesophageal varices (OV), the AST to Alanine-Aminotransferase (ALT) to Platelet Ratio Index (AAPRI) remains underexplored in PBC. This study aims to compare both scoring systems in predicting OV in PBC patients.

Methods We retrospectively collected data from PBC patients followed in our centre over 20 years who underwent upper endoscopy for OV screening. Baseline APRI and AAPRI were calculated using the formulas: APRI = (AST/AST upper limit of normal) x 100/ Platelet count (G/L); AAPRI = (AST/ALT) x 100/ Platelet count (G/L). We evaluated these scores' performance using Receiver-Operating-Characteristic (ROC) analysis and the area under ROC curve (AUROC).

Results We included 106 patients in the study, primarily females (92.5 %), with a mean age of 54 ± 14 years. Cirrhosis was present in 40 patients (37.7 %) at PBC diagnosis, and 43 patients (40.6 %) had OV on endoscopy. The median baseline APRI was 0.97 (interquartile range: 0.56-1.87), and the median AAPRI was 0.57 (interquartile range: 0.35-0.93).

AAPRI outperformed APRI in predicting OV, with respective AUROCs of 0.81 and 0.71 (both $p < 0.001$). An APRI of 0.95 or higher had 74 % sensitivity, 64 % specificity, 59 % positive predictive value (PPV), 78 % negative predictive value (NPV), and 68 % diagnostic accuracy (DA). Conversely, an optimal AAPRI cutoff of 0.62 yielded 74 % sensitivity, 74 % specificity, 66 % PPV, 80 % NPV, and 74 % DA.

Conclusions In PBC patients, AAPRI demonstrates superior performance as a non-invasive predictor of OV compared to APRI.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP010 Gastric polyp in long term PPI use: Identification of the risks and characteristics

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DOI 10.1055/s-0044-1783299

Aims Estimate primarily the prevalence of gastric polyps linked to the long term use of PPI, and determining the various risk factors which promotes this association, as well as the characteristics associated with these polyps.

Methods This prospective cross sectional study was carried out on patients presenting to the Gastroenterology endoscopic department at two hospital centers in Beirut: Rafic Hariri University Hospital and Zahraa Hospital University Medical Center. During the period of 12 months, from September 2021 to September 2022, were included in the study, all the patients presenting to the endoscopic service of the 2 mentioned hospital centers, the number of which is estimated to be around 1000.

The demographic and clinical data of the patients: Case number; age; sex; history of smoking; history of alcohol ingestion; history of NSAID intake; history of gastric polyps; history of Helicobacter pylori; history of prior gastroscopy; history of PPI use; indication, type, dose and duration of the PPI used; indication for this gastroscopy; presence of gastric polyp; number, size, type, location and the histology of gastric polyp; the result of the helicobacter pylori test; are all collected by a questionnaire. All patients with a previous H. pylori infection, or presence of a state of hypergastrinemia, or a personal / family history of gastric polyp, were excluded from this study, in order to preserve a high accuracy of the statistical results.

Results The prevalence of gastric polyp linked to chronic daily use of PPI, in Lebanon, was 30 %. The minimal duration of daily PPI use required to the formation of polyp is around 24 month. The dosage did not play a significant role in increasing this prevalence. A significant correlation was found between the chronic PPI use in part, and the sex, the range of age, the duration and the type of PPI use in other part. These polyps were predominant in female (with an OR 2,9), with increasing age, mostly of fundic gland type, located in the fundus independently on the duration of PPI use, for which their size was proportionally linked to the combination of both the dosage and the duration of the daily PPI use. [1–12]

Conclusions Several cases of fundic gland polyps, linked to PPI use, with dysplasia or carcinoma, have been reported. However, there is no current data, to date, that prove an association between gastric cancer and PPI-induced fundic gland polyp. Indeed, no case of dysplasia within the fundic gland polyp was demonstrated in our study, however, the incidence of fundic gland polyps has increased accordingly to the wide range of chronic use of PPIs, therefore the potential risk of dysplasia / canceration should draw attention. Thus, the present study has the interest of highlighting the importance of limiting the prescription of PPI to globally well-defined indications, and of determining the various risk factors which promote the association between gastric polyps and the use of PPI as well as the characteristics associated with these polyps.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP011 Predictive Value of Albumin-Platelet-Diameter of Portal Vein Risk Score for Large Oesophageal Varices in Compensated Cirrhosis

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DOI 10.1055/s-0044-1783300

Aims The Albumin-Platelet-Diameter of the portal vein (APD) is a non-invasive scoring system originally designed for screening high-risk oesophageal varices (OV) in hepatitis B patients with compensated advanced liver disease. In this study, we evaluate the APD score's performance in predicting large OV in patients with compensated cirrhosis of various causes.

Methods We retrospectively analysed data from patients with compensated cirrhosis, followed-up in our centre over 13 years, and who underwent upper gastrointestinal endoscopy. Large OV were classified using the American Association for the Study of Liver Diseases' 2-grade system. We calculated the APD risk score using the formula: APD = 4.780 + 0.338 × Portal Vein Diameter (mm) -0.025 × Platelet Count (G/l) -0.184 × Albumin (g/l). To assess the APD score's performance, we used receiver-operating-characteristic (ROC) analysis and calculated the area under ROC curve (AUROC).

Results We included a total of 66 patients in the study, with a mean age of 55 years ± 14 years, and 65.2 % were female. The main aetiologies of cirrhosis were as follows: hepatitis B (n = 24, 36.4 %), hepatitis C (n = 9, 13.6 %), autoimmune liver disease (n = 14, 21.2 %), and metabolic dysfunction-associated steatotic liver disease (n = 6, 9.1 %). Only 10 patients (15.2 %) had no OV, while 40 patients (60.6 %) had large OV. The APD score effectively identified patients with large OV, demonstrating a notable AUROC of 0.80 (p < 0.001). An APD score threshold above 0.34 yielded 95 % sensitivity, 54 % specificity, 76 % positive predictive value, 88 % negative predictive value, and 79 % diagnostic accuracy.

Conclusions The APD risk score proves reliable, with excellent sensitivity for identifying large OV in patients with compensated cirrhosis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP012 Endoscopic vacuum therapy for leaky cavities: is it possible?

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DOI 10.1055/s-0044-1783301

Abstract Text Endoscopic vacuum therapy (EVT) requires, in a theoretical approach, that the cavity to be drained must be watertight; otherwise, the vacuum mechanism will not work. CASE: A 71-year-old male patient with an iatrogenic recto-urehral leak and an adjacent 25-mm collection after a Bricker-type surgery. Unsuccessful suture attempt due to the appearance of fecaluria. Rectoscopy: identification of wall defect in the midrectum, confirming communication to a cavity drained by urethra (an elastic duct). Placement of EVT (Endo-SPONGE), achieving negative pressures (KCl, -100mmHg). Review after 72 hours confirming the appearance of granulation tissue and beginning of closure of the cavity. By carrying out of 3 replacements (total 4 sponges), a collapse of the cavity was achieved. Finally, successful leak closure with placement of two over-the-scope clip-type clip (Ovesco) and instillation of endoscopic adhesive (Glubran).

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP013V EUS-guided hepaticogastrostomy with a lumen apposing metal stent used in the management of a malignant hilar stricture

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DOI 10.1055/s-0044-1783302

Abstract Text A 58-year-old female presented with jaundice due to metastatic cholangiocarcinoma. After a failed ERCP, EUS-guided hepaticogastrostomy using LAMS was attempted. LAMS catheter did not penetrate the gastric wall due to connecting to an improper cable. This resulted in bleeding from scratching the gastric wall with the tip of the "cold" delivery catheter. LAMS was connected to the proper cable and a hepaticogastrostomy (LAMS 15 x 15mm) was achieved. Angiogram revealed extravasation from a branch of the left gastric artery which was embolized. The resultant blood clot occluded LAMS requiring a temporary PTC. Three weeks later, the patency of LAMS was confirmed. PTC was removed and two uncovered metal stents were deployed to the right side after endobiliary RFA.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/9c1ee6d9-f2c1-48ba-84f8-421e127dbf49/Uploads/13821_HG_axios%20B.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP014V G-poem assisted by marking the tunnel pathway to the pylorus via a preemptive submucosal injection with a viscous solution all the way to the pylorus in order to avoid swirling

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DOI 10.1055/s-0044-1783303

Abstract Text A 65-year-old male with a history of hiatal hernia repair complicated with postoperative gastroparesis (large gastric food bezoars on endoscopy, gastric emptying of 14 % at 4 hours). His GCSI score was 2.8. Hemoglobin A1c 6.8.

Endoscopy showed food bezoars that were cleaned and a spastic pylorus.

In order to avoid swirling away from the pylorus, a preemtive submucosal injection with a blue viscous solution was done starting from the pylorus and

ending 3 cm proximally. A horizontal mucosal incision was performed followed by submucosal dissection following the blue viscous solution until the pylorus was reached. Two full-thickness myotomies were performed. The tunnel entry was closed using an endoscopic suturing device. [1]
His symptoms remarkably improved (GCSI went down to 0.2).
Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/95d2b8ef-432b-47a2-97b1-c4e854b8b11e/Uploads/13821_G_poem%20series%202.mp4
Conflicts of interest Authors do not have any conflict of interest to disclose.
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eP015 The Incidence Rates and Risk Factors of Cardio-Cerebrovascular Adverse Events after Sedative Esophagogastroduodenoscopy in Patients with Gastric Cancer: A Nationwide Population-Based Cohort Study

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Aims There is limited data on the impact of sedation on cardiocerebrovascular disease (CCD) adverse events after esophagogastroduodenoscopy (EGD). We investigated the incidence rate, risk factors and the impact of sedation on CCD adverse events after EGD in patients with gastric cancer.
Methods We performed a nationwide population-based cohort study and analyzed the incidence rate and risk factors for newly diagnosed CCD adverse events within 14 days after EGD in patients with gastric cancer by using Health Insurance Review and Assessment Service databases from January 1, 2018 to December 31, 2020.
Results Of 103,463 subjects with gastric cancer, CCD adverse events occurred in 2.57 % within 14 days after EGD. Sedative agent was used in 41.3 % of the study subjects during the EGD. The incidence rate of CCD adverse events with non-sedation and sedation are 3.15 % and 1.74 %, respectively. On multivariate analysis, men, older age (≥ 65 years), types of healthcare institution, medical benefit system, inpatient basis, some chronic diseases, and use of anti-platelet agents was independent risk factors for CCD adverse events after EGD in patients with gastric cancer, but not sedation during EGD, regardless of types of sedative agents.
Conclusions In a population-based cohort study, sedation during EGD was not associated with CCD adverse events in patients with gastric cancer. These findings suggest that use of sedative agent may be considered in patients with gastric cancer during EGD without excessive concerns for CCD adverse events.
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP016 Comparison of endoscopic treatment outcomes between Dieulafoy's lesion and peptic ulcer: A 10-year single-center retrospective study

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Aims Nonvariceal upper gastrointestinal hemorrhage (NVUGIH) is brought about by a variety of causes. Among them are peptic ulcers (PU) and Dieulafoy's lesions (DL) located in upper gastrointestinal tract. The aim of this retrospective study is to compare endoscopic treatment outcomes in NVUGIH cases caused by PU and DL.
Methods A review of the endoscopy database of the Gastroenterology Department of Army Share Fund Hospital for a period of 10-years (June 2013 until June 2023) was performed. Only upper gastrointestinal endoscopies (UGE) that have been performed for hematemesis, hematochezia, and melena were included in the study. Study population consisted of patients with NVUGIH caused by PU and DL. Forrest (F) classification was used to define low-risk and high-risk PU and guide appropriate endoscopic treatment. Data regarding endoscopic treatment techniques performed, bleeding refractory to endoscopic hemostasis cases (persistent bleeding) and bleeding after successful hemostasis cases (recurrent bleeding) were collected. Possible associations between groups were assessed using Chi-squared test. The significance level in this study was set at 0.05.
Results Overall, 264 patients with PU and 29 patients with DL were enlisted in the study. PU were classified as Forrest Ia (4,17 %), FIb (8,33 %), FIIa (11,74 %), FIIb (10,99 %), FIIc (9,47 %) and FIII (55,30 %). The mean age was 73,84 years in the PU group and 77,89 years in the DL group. As for gender, in the PU group 62,88 % were men and 37,12 % were women ($P < 0.0001$) while in the DL group 58,62 % were men and 41,37 % women ($P = 0.1931$). Endoscopic treatment was applied in 91 out of 264 PU patients (34,47 %) and in 26 out of 29 DL patients (89,65 %) ($P < 0.0001$). Combination therapy using injection of epinephrine in addition to mechanical (hemostatic clips) or thermal (contact or noncontact) therapy was the preferred hemostasis strategy in both groups [49,45 % (n = 91) and 53,85 %(n = 26), PU and DL groups respectively, $P = 0.6935$]. No statistically significant difference was found in terms of persistent bleeding (1,51 % and 3,44 %, PU and DL groups respectively, $P = 0.4463$) and recurrent bleeding (6,44 % and 6,89 %, PU and DL groups respectively, $P = 0.9257$) between the two groups.
Conclusions A significantly higher need for utilization of endoscopic hemostasis in DL patients compared with PU patients was found in our study. Combination therapy was the preferred endoscopic technique in both groups. As for persistent and recurrent bleeding cases, no statistically significant difference was detected between DL and PU groups.
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP017 A cost-evaluation of different imaging approaches for patients undergoing patency capsule investigation at a video capsule endoscopy service

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Aims Patients undergoing video capsule endoscopy (VCE) receive a pre-test patency capsule to reduce the incidence of capsule retention. This study investigated outcomes following patency capsule (PC) investigation. An economic evaluation was conducted to explore the cost implications of different approaches.
Methods The current approach consists of patients retaining a PC undergo an initial AXR. Radiographs demonstrating capsule retention receive a further PC at a later date followed by a low-dose CT abdomen scan. Alternative approaches were considered including: 1) addition of stool observation counselling and a pro-kinetic, 2) immediately performing low-dose CT abdomen scans on all patients retaining a PC, or, 3) a sequential approach where the initial AXR is reviewed by a radiologist and radiographs demonstrating capsule retention receive a same-day low-dose CT abdomen scan.
A retrospective analysis was conducted of patients undergoing PC investigation between 2020-2022. Data on demographics, indications for investigation, and imaging outcomes were collected. A cost-evaluation of the different imaging approaches was conducted using information from NHS tariff costs and published literature.
Results Eighty-three patients were identified: 52 % were female and the median age was 42.8 years. 70 % of patients retained the initial PC thus requiring an AXR. Of this cohort, 17 % received a further PC followed by a low-dose CT

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abdomen scan. This approach cost £205.23 per patient. The alternative options were all more cost-effective.

Conclusions The alternative management approaches were more cost effective. This study failed to consider costs incurred by the patient such as travelling to attend additional appointments.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP018 Post-colonoscopy diverticulitis; a cases report and review of the literature

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Abstract Text Colonoscopy, generally safe but not devoid of risks, can result in rare complications. We present two cases of post-colonoscopy diverticulitis (PCD). Case 1: A 63-year-old patient developed acute sigmoid diverticulitis within 48 hours of colonoscopy. Despite extensive diverticulosis (DICA score: 2), conservative management with antibiotics led to recovery. Notably, she had a recurrent episode a month later. Case 2: A 74-year-old patient with pan-colonic diverticulosis (DICA score: 2) developed severe sigmoid diverticulitis after two colonoscopies, managed conservatively with antibiotics. Discussion underscores PCD's rarity (prevalence: 0.04 %-0.08 %) and unclear causes. Both cases had DICA scores ≥ 2, suggesting potential risk factors. Clinicians should be vigilant about PCD, as it can mimic common post-colonoscopy complications. Early recognition and management are crucial. [1–17]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP019 Early versus Delayed Nutrition in Patients After Upper Gastrointestinal Bleeding Hemostasis: A Systematic Review and Meta-analysis of Randomized Controlled Trials

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Aims Despite a lack of evidence, patients are often not fed for 48 to 96 hours after upper gastrointestinal bleeding (UGIB); however, many trials have demonstrated the benefits of early nutrition (EN). We conducted a meta-analysis of randomized controlled trials (RTCs) to evaluate the outcomes of EN compared to delayed nutrition (DN) after UGIB.

Methods The protocol was registered on PROSPERO (CRD42022372306). PubMed, Embase, CENTRAL, Scopus, and Web of Science were searched on the 27th of August 2023 to identify eligible RCTs. The primary outcomes were early (within 7 days) and late (within 30-42 days) mortality and rebleeding. Pooled risk ratios (RR), mean differences (MD), and corresponding 95 % confidence intervals (CI) were calculated using a random-effects model.

Results A total of 10 trials with 1,051 patients were included in the analysis. Early mortality was not significantly different between the two groups (RR: 1.20, CI: 0.85 – 1.71, I^2 = 0 %), whereas late mortality was reduced to a clinically relevant extent in the EN group (RR: 0.61, CI: 0.35 – 1.06, I^2 = 0 %). When comparing the two groups, we found no significant difference in terms of early and late rebleeding (RR: 1.04, CI: 0.66 – 1.63, I^2 = 0 % and RR: 1.16, CI: 0.63 – 2.13, I^2 = 0 %, respectively). Our analysis also showed that the length of hospital stay was reduced in the EN group compared to the DN group (MD: – 1.22 days, CI: – 2.43 to – 0.01, I^2 = 94 %).

Conclusions Compared with DN, EN (within 24 hours) appears to be a safe intervention and could reduce the length of hospital stay without increasing the risk of complications after UGIB.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP020 Balloon Dilation-assisted Extraction of Embedded Biliary Self-Expandable Metal Stents: A Proof-of-Concept Study

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Aims Embedded transpapillary self-expandable metal stents (SEMS) often lead to obstructive biliary complications. Endoscopic extraction is generally required and standard approaches often fail. In the current study we describe a newly developed approach to treating refractory embedded SEMS, using balloon dilation-assisted stent extraction or 'BASE'. Our aim was to evaluate the feasibility and outcomes of this technique.

Methods This is an exploratory single-center retrospective analysis and all consecutive patients undergoing endoscopic balloon-assisted stent extraction were included. During this procedure, a 15mm through-the-scope dilation balloon is inflated in the embedded SEMS and distal bile duct, after which the SEMS and dilation device are both extracted simultaneously by firm continuous traction. Baseline, procedural and follow-up data were collected and analyzed. The AGREE-classification was used for adverse event grading.

Results Twelve patients with embedded transpapillary SEMS were identified (60.0 % female, mean age 70.1 [SD ± 18.1] years, uncovered SEMS 33.3 %) with median SEMS dwell time of 457.5 (IQR 175.8-1042) days. Previous extraction attempts were undertaken in the majority of cases (83.3 %), including forceps traction (58.3 %) and SEMS-in-SEMS placement (41.7 %).

Using the balloon-assisted stent extraction or 'BASE' technique, successful SEMS extraction was achieved in 10 out of 12 cases (83.3 %). Adverse events occurred in 2 patients (Grade I [n = 1, 8.3 %] – Grade II [n = 1, 8.3 %]), consisting both of immediate postprocedure episodes of cholangitis, which were both treated successfully with antibiotics. After a median follow-up time of 171 (58-260) days, one biliary re-obstruction occurred for which endoscopic re-evaluation and a negative balloon sweep was performed.

Conclusions Our data suggest that endoscopic balloon-assisted stent extraction or 'BASE' could be considered for extraction of embedded self-expandable metal stents, as it showed high efficacy without any major procedure-related adverse events, using readily available endoscopic tools.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP021 Comparison of aggressive versus standard hydration in the prevention of pancreatitis after endoscopic retrograde cholangio-pancreatography

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DOI 10.1055/s-0044-1783310

Aims Post-ERCP pancreatitis is a frequent complication with increased morbidity and mortality. We are conducting a double-blind randomized clinical trial to evaluate the impact of aggressive hydration as prevention of post-ERCP pancreatitis.

Methods This study was conducted on patients with ERCP at the Gastrointestinal Endoscopy Center in Morocco from January 2021 to September 2023. Block randomization was performed to allocate aggressive hydration and standard hydration. Pancreatitis diagnosed according to Atlanta criteria.

Results Two groups with a total of 92 subjects were randomized equally. Results analyzed Control event rate (CER) 15.2 %, experimental event rate (EER) 4.3 %, absolute risk reduction (ARR) 10.9 % relative risk 0.28, relative risk reduction (RRR) 71.7 %, number needed to treat (NNT) 9. No side effects reported in this trial. This research was approved by an ethics committee.

Conclusions Aggressive hydration is more effective in clinically preventing post-ERCP pancreatitis, although not statistically significant.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP022 Clinicopathological features and outcomes in young adults with gastric cancer

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Aims Gastric cancer rarely occurs in individuals under the age of 40, and little is known about its clinicopathological features and predictors of outcome. The aim of our study was to evaluate the clinical and pathological characteristics of young adult patients with gastric cancer and to analyze prognostic factors in these patients

Methods A single-center retrospective observational study was conducted at MOHAMED VI UNIVERSITY HOSPITAL IN MOROCCO. A total of 63 young patients (patients aged 40 years or younger at diagnosis) were collected from January 2014 to September 2023. Patients' clinical and histopathological data were analyzed and results reviewed.

Results the mean age of our population was 33 years, 70 % were male with a history of tobacco intoxication, obesity and neoplasiain the family. The clinico-pathological features showed early-stage advanced cancer and an undifferentiated histological tumor type. The 5-year overall survival was 31.7 %. The 5-year overall survival rate was 100 % in stage I, 58.8 % in stage II, 22.6 % in stage III and 8.3 % in stage IV, respectively. The 5-year survival rate was 52.1 % in the curative resection group and 3.8 % in the non-curative resection group. Multivariate analysis in young adults showed that early stage of disease (P = 0.002) and curative resection (P = 0.034) were two independent prognostic factors for better survival.

Conclusions Gastric cancer in young adults has unique clinico-pathological features. Early diagnosis and subsequent curative resection could increase survival time.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP023 A retrospective study of adenoma detection rates in patients undergoing colonoscopy screening in a tertiary hospital in Morocco

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Aims It is now widely accepted that most colorectal cancers develop from adenomas and that detection and removal of adenomas will lead to a reduction in the incidence of colorectal cancer. This study aims to establish the incidence of adenoma detection in patients undergoing routine screening colonoscopy.

Methods This was a retrospective descriptive study of adult patients at a tertiary hospital who underwent screening colonoscopy between January 2015 to September 2023. Inclusion criteria included patients who underwent screening colonoscopy. Exclusion criteria included patients diagnosed with inflammatory bowel disease, previous colonic surgery, presence of colorectal cancer at baseline, resection prior to baseline and history of hereditary colorectal cancer without polyposis or family history of adenomatous polyposis.

Results A total of 260 colonoscopies were performed. A total of 111 patients with polyps detected with demographic data and histopathological findings reviewed. 54.2 % had adenomatous polyp histology. The characteristics of the polyps diagnosed were also examined. The majority of polyps were described as sessile (68.54 %); the remainder were described as pedunculated and broad-based (4.05 % vs. 3.43 %). Adenoma detection was 54.21 %. Adenomatosis was the most frequent histopathological description (41.12 %). Adeno-matous polyps with high-grade dysplasia were observed in 15 patients (3.56 %); serrated lesions were detected in 9 patients (2.80 %). 67 were hyperplastic polyps (37.69 %). The adenoma detection rate was 33.53 % in patients who underwent colonoscopy.

Conclusions In summary, the study reports an adenoma detection rate of 33.53 % in patients who underwent screening colonoscopy. Currently, societies recommend adenoma detection rates of > 15 % in women and > 25 % in men as indicators of quality screening.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP024 Urgent ERCP reduces mortality in acute cholangitis due to common bile duct stones

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Aims ERCP is the standard treatment for acute cholangitis.Urgent ERCP within 24 hours is suggested for moderate to severe acute cholangitis, but the impact on clinical outcomes remains to be explored.This study aimed to evaluate the clinical outcomes of patients undergoing urgent versus delayed ERCP in acute cholangitis due to common bile duct stones.

Methods A retrospective review of the ERCP database of patients diagnosed with acute cholangitis due to CBD stones undergoing ERCP from 2020 to 2023. The timing of urgent ERCP was defined as within 24 hours of ad-mission. In-hospital mortality, persistent organ failure at 72 h, length of stay, complete stone removal and complications were assessed.

Results 157 patients were recruited with a mean age of 66 years. 21.5 % had severe cholangitis, 40.4 % moderate and 38 % mild. 45.7 % underwent emergency ERCP. There were no differences in clinical features between the two groups, with the exception of underlying malignancy, which was more frequent in the late ERCP group ($p = 0.047$). In-hospital mortality in the urgent ERCP group was significantly lower than in the late ERCP group ($p = 0.032$). Subgroup analysis showed that urgent ERCP was associated with lower in-hospital mortality in severe cases ($p = 0.024$), but not in mild or moderate severity cases. Length of stay was shorter in the urgent ERCP group than in the delayed ERCP group ($p < 0.01$). Nevertheless, urgent ERCP did not alter the rates of persistent organ failure, complete stone removal, complications and readmissions between the two groups.

Conclusions urgent ERCP in acute cholangitis due to CBD stones reduced in-hospital mortality and length of stay.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP025 Colorectal cancer in a tertiary hospital in Morocco: incidence in young people and associated factors

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Aims The incidence of early-onset colorectal cancer (CRC) before the age of 50 is increasing worldwide. However, epidemiological data on early-onset colorectal cancer are still limited, particularly in developing countries. This study aims to assess the prevalence, sociodemographic, clinical and histopathological characteristics, and risk factors associated with patients with early-onset CRC in Morocco.

Methods This retrospective study collected data from the medical records of patients diagnosed with CRC at the Gastrointestinal Endoscopy Center, in Mohamed VI university hospital – Marrakesh – Morocco, during the period 2016-2023. Subjects were classified into two groups: early-onset patients (diagnosed between 18 and 49 years of age) and late-onset patients (diagnosed at ≥ 50 years of age). Results for both groups were analyzed using the chi-square test.

Results Of the CRC patients confirmed by histo-pathological findings, 55 patients (41.4 %) were early-onset CRC cases, while 78 (58.6 %) were late-onset CRC cases. 53.7 % of early-onset CRC patients were male, and 89.8 % had a histopathological subtype of adenocarcinoma. 78 % of early-onset CRC patients had left-sided tumors, with the rectum (41 %) and rectosigmoid (17.6 %) being the most frequent sites. Abdominal pain was the most frequent symptom in patients with early-onset CRC (55.6 %), significantly higher than in patients with late-onset CRC (43.8 %). Early-onset CRC cases were more likely to be underweight (34.6 %) and 9.3 % were suspected of having hereditary non-polyposis colorectal cancer (HNPCC), both variables being significantly higher than for late-onset CRC cases.

Conclusions Most patients with early-onset CRC were male, had left-sided tumours and histopathologically presented with adenocarcinoma. A greater proportion of patients with early-onset CRC presented with abdominal pain, underweight and suspected HNPCC.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP026 Formalin Irrigation of Radiation Hemorrhagic Proctitis a single tertiary center experience in Morocco

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Aims Radiotherapy is an essential treatment modality for pelvic malignancies such as gynaecological, rectal and prostate cancer. However, the rectum is vulnerable to secondary radiation injury. Implicit causes of this type of complication include endarteritis obliterans and progressive submucosalalfibrosis. The aim of our study is to evaluate the efficacy and safety of the local formalin irrigation method in patients with radiation-induced hemorrhagic proctitis.

Methods Patients received 4 % formalin irrigation over the affected rectal areas. All patients were monitored. Defecation, remission of bleeding and other symptoms were studied at follow-up. Patients with anorectal strictures, deep ulcerations and fistulas were excluded. Flexible endoscopic evaluation was performed in all patients.

Results 131 patients (78 men, 53 women) with a mean age of 64 years were recruited. The mean time from the end of radiotherapy to the onset of bleeding was 9.4 months. The mean duration of hemorrhagic proctitis before formalin application was 4.3 months. Patients required an average of 2.5 applications of formalin at 2-4 week intervals. Complete resolution of symptoms was achieved in 16 patients (76 %). 4 patients were offered complementary argon plasma therapy. 1 patient underwent surgery for massive hemorrhage.

Conclusions In our experience, despite the small number of patients, formalin irrigation appears to be an effective and safe method for hemorrhagic radiation proctitis, without serious complications.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP027 Factors influencing the patient's decision for sedation in endoscopy

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Aims Many factors influence patients' decision to choose sedation for endoscopy. This issue has been the subject of numerous studies. However, there are few data on this aspect in Morocco. This study aims to fill the gaps in our knowledge of patient-related factors in the choice of sedation.

Methods This was a one-year prospective study conducted in a tertiary referral center. Patients undergoing endoscopy were systematically questioned about their preference to undergo the procedure with or without sedation, and the reasons for their choice were noted. After the procedure, satisfaction levels and any changes in their choice after their experience were also noted. The various reasons for their decision were recorded in a pre-prepared questionnaire.

Results The study involved a total of 780 patients (64.9 % men, 35.1 % women). The mean age was 45.12 years 14.86. The most frequent reason for preferring sedation was the fear of pain (67.1 %) and the patient's apprehension of not obtaining an accurate diagnosis without sedation during colonoscopy (34.6 %).

The preference for sedation was significantly higher among women (59.9 %) and those with a high level of education, i.e. higher education graduates (90.4 %). Willingness to repeat the procedure with the same preferred choice was high in the sedation group (82.3 %), in those over 60 (85.9 %) and in men (77.7 %). Those who underwent colonoscopy without sedation were more likely to prefer a change (53.8 %) if they were to undergo the procedure again, compared with those who underwent the procedure with sedation (15.1 %). However, there was no significant difference in those who underwent upper GI endoscopy. Anxiety during the procedure was the most common reason (43.8 %) for the change in preference in unsedated patients.

Conclusions The preference for sedation was higher in younger and older people, in women more than in men, and in those with a higher level of education. The majority of patients who underwent colonoscopy without sedation preferred a change if they needed to repeat the procedure in the future.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP028 Transesophageal antireflux procedure in an ex vivo porcine model using freehand suturing

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Aims Especially the will to perform suturing posed endoscopist to problems that came up with a variety of technical solutions.

With the combination of barbed wires and the needle holder, it is now possible to perform freehand sutures in GI-endoscopy.

One of the most important areas to compete with surgery may be the lack of anti-reflux procedure in POEM.

Inoue et al. already published a fundoplication procedure using loop and clip procedure.

Methods We describe a technique using freehand suturing after POEM procedure to perform a wrapping of fundic parts of the stomach towards the cardia region in analogy to a Dor-Fundoplicatio.

We used a fresh isolated porcine stomach with a long esophageal part that was fixed in an EASIE Endotrainer model (Tübingen Germany).

The procedure was carried out using a Hybrid Knife (ERBE Elektrotechnik Tübingen, Germany). We used a short distal attachment cap (MTW Endoscopy, Wesel, Germany).

First a submucosal tunneling extending approximately 2 cm underneath the GE junction was performed. After performing a myotomy the middle part of the tunnel approximately 10 mm proximal to the GE Junction was opened transmural on the anterior side.

A barbed wire (3-0,V-LOC-180 Covidien) of 15 cm length with a 26 mm taper point needle (½ circle) was carried down into this position while grasping it with the needle holder (SutuArt, Olympus, Japan) near the tapered end.

Now a running Z-shaped suture was performed form proximal to distal starting at the fundic area, to the lesser curvature of the cardia, back to the fundic area 20 mm distal to the 1st stich and so on, until 3 complete connections of fundus and cardia were sutured. Afterwards the needle was retracted into the tunnel and further into the esopageal lumen which led to a wrapping of the fundus area towards the cardia.

The total duration of the procedure from cutting into the deeper layers of the esophageal wall until removing the needle was 20 minutes.

Results Transluminal extension of POEM for freehand suturing for anti-reflux procedures is possible to perform using new technical developments.

Conclusions Antireflux procedures that involve other surgical techniques such as hiatal repair may not be performed using this technique.

We believe that implementing the technique of freehand suturing may be a major driver in the development of endoscopy in near future. Numerous potential indications may arise and bring endoscopy into a completely new role in the context of visceral-medicine.

Conflicts of interest Olympus medical devicesFujifilm Contracting

eP029 Pancreatic Masses Clinically Diagnosed as Tuberculosis: A Case Series

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DOI 10.1055/s-0044-1783318

Aims Pancreatic masses are not uncommonly encountered in clinical practice, with concern for the possibility of cancer that may indicate poor prognosis. Pancreatic tuberculosis can present as masses that may be difficult to differentiate from cancer, both clinically and radiologically. Thus, tissue sampling or outright surgical resection are part of the options for patients with pancreatic masses. However, surgical resection such as pancreaticoduodenectomy has been reported to be unnecessarily performed in patients with pancreatic masses that turned out to be benign. It would therefore be worthwhile to look into less invasive management options for pancreatic masses that may potentially be benign, such as tuberculosis, in order to avoid overtreatment of patients. The aims of this study are as follows: to present patients with pancreatic masses suspected to be cancer, to demonstrate that pancreatic tuberculosis may masquerade as cancer, and to show that clinical diagnosis and treatment for tuberculosis may be an option for patients presenting with pancreatic masses in an endemic region.

Methods The patient database in our institution from 2022 to 2023 was reviewed for patients presenting with pancreatic masses initially suspected to be malignant but later diagnosed as tuberculosis without direct evidence via tissue sampling. Pertinent clinical characteristics for each patient were obtained. Features of the pancreatic masses initially detected in each patient on abdominal imaging were reviewed, including those from abdominal CT scan and endoscopic ultrasound (EUS). The clinical response of each patient to anti-tuberculosis treatment was then assessed. Surveillance EUS looking into the status of the pancreatic masses after treatment was also checked for each patient.

Results Three adult Filipino patients, two males and one female, were noted to present with at least one of these symptoms: weight loss, epigastric pain, jaundice, and fever. The two males were smokers and had no prior history of tuberculosis treatment. The female patient had a family history of breast cancer. On workup, all three patients had pancreatic masses detected on abdominal CT scan and/or EUS. Malignancy was suspected in all three cases, with two of the patients having pancreatic masses exhibiting vascular encasement on imaging. Two of them also had elevated CA 19-9 level. Anti-tuberculosis treatment was eventually given to all three patients due to concomitant diagnoses of extrapancreatic tuberculosis in the absence of any direct evidence of pancreatic tuberculosis via tissue sampling. All three improved clinically after treatment, with EUS documentation of resolution of the pancreatic masses in all three cases. Common characteristics among the patients include age less than 60 years old and presence of extrapancreatic tuberculosis. [1–11]

Conclusions In endemic regions, clinical diagnosis of pancreatic tuberculosis and treatment without tissue sampling may be a management option for patients presenting with pancreatic masses, especially if relatively young and with diagnosis of tuberculosis in other organs. This approach may potentially avoid overtreatment such as unnecessary surgical resection.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP030V Case series: treatment of different mirizzi syndrome types / residual cystic duct lithiasis following cholecystectomy with single operator cholangioscopy and lithotripsy

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DOI 10.1055/s-0044-1783319

Abstract Text Mirizzi syndrome (MS) is an uncommon manifestation of gallstone disease. Pre-operative diagnosis and treatment (traditionally considered surgical) is challenging. We present a case-series of endoscopic treatment of this condition with single operator cholangioscopy and electrohydraulic lithotripsy. **Case 1:** 53y patient – past cholecystectomy – type 2 Mirizzi. **Case 2:** 27y patient – past cholecystectomy – type 4 Mirizzi. **Case 3**: 69y patient – - past cholecystectomy – type 4 Mirizzi. Endoscopic management of different Mirizzi types, even in the post-cholecystectomy setting, seems to be feasible, effective and safe with the use of lithotripsy. These patients may benefit as the surgical treatment of this condition is complex and associated with high risk of complications. [1–4]
Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/a02dd4dd-7740-438a-a42a-faeb313bb016/Uploads/13821_Mirizzi_EHL.mp4
Conflicts of interest Authors do not have any conflict of interest to disclose.
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eP031V Use of TC-325 hemostatic powder for bleeding upper gastrointestinal malignancy – From bridge therapy to palliative management. Video case series of different scenarios

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Abstract Text Recent literature supports use of TC-325 hemostatic powder in the management of malignant gastrointestinal (gi) bleeding. We present 3 cases with successful bleeding control: Patient 1: female 68y ECOG 1, linitis plastica. Bridge hemostasis. Patient was successfully referred for urgent radiotherapy. Patient 2: female 54y ECOG 4 with metastatic poorly differentiated adenocarcinoma of the stomach. Died 4 days later of disease complications. Palliative therapy. Patient 3: male 86, ECOG 2, metastatic adenocarcinoma. Failure of standard endoscopic treatment. Rescue therapy.Use of TC-325 can be used to provide (lasting) hemostasis in cases of upper gi malignancy. Besides palliation benefits, it can significantly improve transfusion needs resulting in improvement of both quality of life and other long-term oncological outcomes. Furthermore, it can serve as bridge to more definitive treatment like radiotherapy or surgery. [1–4]
Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/5a2c3ebe-f754-4772-a059-673c30dd72b3/Uploads/13821_Use_of%20TC-325%20hemostatic%20powder%20for%20bleeding%20upper%20gastrointest....mp4
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eP032V Endoscopic Mucosal Resection with Argon Plasma Coagulation for a Colonic Laterally Spreading Tumor

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Abstract Text A 65-year-old male underwent colonoscopy as investigation for the passage of blood clots per rectum. A 2.5-centimeter laterally growing polypoid lesion with overlying regular tubular mucosal pattern was seen at the sigmoid colon and classified as a nodular mixed type of granular laterally spreading tumor (LST-G). Piecemeal endoscopic mucosal resection (EMR) was done; however, adequate resection margins were not achieved with repeated resections. A meta-analysis has supported endoscopic interventions that target EMR margins to decrease risk of tumor recurrence. Argon plasma coagulation (APC) was thus applied onto the post-resection site until with golden-brown appearance. No post-resection bleeding occurred on follow up after two weeks. Histopathology showed tubular adenoma with high-grade dysplasia. Subsequent plan is to do surveillance endoscopy in six months. [1]

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/073e2ca0-60de-40ea-a7ae-e7d1d0a9522b/Uploads/13821_ESGE_Video%20Submission%20-%20EMR%20with%20APC.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP033 Efficacy and safety of a novel haemostatic adhesive powder in preventing delayed bleeding after endoscopic submucosal dissection of large rectal lesions: a single-center experience

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DOI 10.1055/s-0044-1783322

Aims Endoscopic submucosal dissection (ESD) has become essential for resection of advanced gastrointestinal endoluminal lesions. With this technique we can obtain en bloc resection and achieve histological R0. However, especially in difficult and large lesions, dissection is very difficult and adverse events, such as bleeding, may occur easily, both during and later the procedure. Haemostatic agents can be useful in particular to prevent the delayed bleeding. This study aims to evaluate the efficacy and safety of a novel haemostatic adhesive powder (Nexpowder, Medtronic) in preventing delayed bleeding after ESD of large rectal lesions.

Methods Eleven patients (7 men, 4 women), with a mean age of 81 years (range 73-89), over a 3-month period (July 2023 – September 2023) and who presented large rectal lesions (specimen size over 40 mm and up to 70 mm) underwent ESD. At the end of the procedure, on ESD scar, Nexpowder was applied to prevent delayed bleeding. Primary outcome was delayed bleeding rate within 48 hours and at 4 weeks. We also recorded the adverse events rate. [1–3]

Results The mean resected specimen size was 56.3 ± 14.1 mm. The overall delayed bleeding rate was 18.0 % (2/11). The median timing of delayed bleeding was 16.7 days. Furthermore there was no early bleeding event immediately afterwards the ESD. No adverse events has occurred (0 %).

Conclusions Nexpowder may be a promising new simple and effective method to prevent delayed bleeding after ESD in large lesions, but more evidence is needed to apply this device routinely.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP034 Hepatic Sarcoidosis: Incidence, Presentation, and Treatment

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DOI 10.1055/s-0044-1783323

Aims Sarcoidosis is a rare multi-systemic inflammatory disease of undetermined cause, characterized by the development of non-caseous granulomas affecting all organs. Liver damage is rare with a prevalence of 13 %, and is most often asymptomatic.

The aim of our study is to figure out the clinical, paraclinical and therapeutic characteristics of patients with hepatic sarcoidosis.

Methods This is a retrospective descriptive study involving all patients followed for sarcoidosis between January 2015 and March 2023 at Monastir's Internal Medicine Department.

Results Among of 52 patients followed for systemic sarcoidosis, 17 patients had liver damage. The average age at the time of diagnosis was 44 years. Thirteen patients (76,47 %) were female.

The liver involvement was revealing of the disease in 06 cases. The circumstances of discovery were essentially hepatosplenomegaly in 10 cases (58.82 %), hepatomegaly in 04 cases (23,52 %), isolated splenomegaly within 1 case(5.8 %), mucocutaneous jaundice and ascites in one case.

The biological abnormalities found were anicteric cholestasis in 4 cases, icteric cholestasis in one case, hepatic cytolysis that predominates over ALT in 02 patients, and 02 cases of hepatocellular insufficiency were observed. The converting enzyme was elevated within 3 patients.

The imaging showed a homogeneous hepatosplenomegaly in 09 cases, liver and splenic micronodules in 3 cases, heterogeneous hepatospenomegaly in 02 cases, isolated homogeneous splenomegaly in one case, a liver of chronic hepatopathy with signs of portal hypertension (expanded portal trunk, collateral venous circulation, ascites, homogeneous splenomenegaly) in 02 case.

Histology exam confirmed the diagnosis within 04 patients showing granulomatous inflammation of liver tissue in 02 cases, chronic active hepatitis with portal and peri-portal fibrosis in 02 case.

Among the extra-hepatic manifestations, an association with pulmonary (6 cases), ocular (04 cases) lymph nodes (04 cases), naso-sinuseous (02 cases) and skin (03) damages .

All of our patients were given corticosteroid therapy at the dose of 0.5 mg/kg/day. The progression was marked by the regression of hepatomegaly with normalization of the liver balance in 58.8 %, stabilization of the disease in 23.52 % and progression to hepatocellular insufficiency and portal hypertension in 11.76 %.

Conclusions Our study shows that hepatic sarcoidosis is common with a prevalence of 32.69 %, and hepatosplenomegaly is the most common way of detection. Treatment is mainly based on corticosteroids. The evolution to hepatocellular insufficiency and portal hypertension remains the most dreaded complications.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP035 Usefulness of a new traction device during endoscopic submucosal dissection of large lesions

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DOI 10.1055/s-0044-1783324

Aims Endoscopic submucosal dissection (ESD) is a fantastic tecnique for resection of advanced gastrointestinal lesions thanks to the possibility of obtaining en bloc resection and achieve histological R0. However, in difficult and large lesions dissection is very challenging and during the procedure you can easily lose the dissection plane and the help of gravity. Traction devices can be useful to make procedure more easy and faster. This study aims to evaluate the efficacy and safety of a novel traction device (ProdiGI Traction Wire, Medtronic) for mantaining the access to the submucosa during the ESD.

Methods Sixteen patients (9 men, 7 women), with a mean age of 86 years (range 71-89), over a 6-month period (April 2023 – September 2023) and who presented large gastrointestinal lesions (12 colorectal, 4 gastric, specimen size over 40 mm) underwent ESD. During the procedure ProdiGI, which is composed by a primary clip with a traction nitinol wire and a secondary clip, was applied to mantain access to the submucosa. Primary outcome was en-bloc resection rate and losing-submucosa plane rate. We also recorded median procedure time and adverse events rate.

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Results The mean resected specimen size was 55.2 ± 15.7 mm. The overall en-bloc resection rate was 100 % (16/16), with only one case (1/16, 6 %) of temporarily losing-submucosa plane during ESD. The device provided continuous great tension during the ESD. The median procedure time was 140 minutes. No adverse events has occurred (0 %). [1–3]

Conclusions ProdiGI Traction Wire may be a promising effective and innovative method for traction during the ESD especially in large lesions, but more evidence is needed for daily practice.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP036V Successful management of biliary obstruction secondary to a hilar stricture using EUS-guided hepaticogastrostomy

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DOI 10.1055/s-0044-1783325

Abstract Text An 83-year-old female presented with obstructive jaundice. MRI of the abdomen showed dilated intrahepatic ducts due to a hilar stricture without a mass. CA 19-9 was elevated. ERCP failed to cannulate the bile duct. EUS showed dilated intrahepatics without a mass. A dilated left intrahepatic duct was punctured with a 19 gauge needle, a cholangiogram was obtained, and a wire was coiled inside that duct. The hepaticogastrostomy track was then dilated using a 6 mm balloon at multiple stations. Finally, a fully covered metal stent of 8mm x 10cm was deployed. Her bilirubin normalized over the following six weeks. The patient and family decided to pursue conservative management. As a result, the suspected diagnosis of cholangiocarcinoma was not confirmed.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/aa165ac5-e365-4979-bb70-c2463f405106/Uploads/13821_HG_technique%20final.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP037 Helicobacter pylori: does asymptomatic infection mean absence of gastroscopic lesions?

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DOI 10.1055/s-0044-1783326

Aims We determined the common clinical features of patients infected with H. pylori (H. pylori) and studied the relationship between H. pylori infection and clinical symptoms and gastroscopic manifestations, focusing on clinical manifestations in asymptomatic patients. pylori) and studied the relationship between H. pylori infection and clinical symptoms and gastroscopic manifestations, focusing on clinical manifestations in asymptomatic patients. pylori infection and clinical symptoms and gastroscopic manifestations, focusing on clinical manifestations in asymptomatic patients

Methods We obtained physical examination data from patients who underwent 14C-urea breath test (14C-UBT) between January 2018 and December 2020 in our hospital. Baseline demographic data, clinical symptom questionnaire data and patient clinical examination data were also collected, and correlation analysis was performed.

Results A total of 2863 participants were included in the study. The overall rate of H. pylori infection was 26.30 %. Clinical symptoms between H. pylori positive and H. pylori negative patients did not differ significantly ($P > 0.05$). However, H. pylori-positive patients had more severe gastroscopic manifestations ($P < 0.001$). The 14C-UBT decay-per-minute (DPM) values in H. pylori-positive patients were related to their serum pepsinogen and gastrin-17 levels. As the DPM value increased, more combinations of clinical symptoms appeared in the patients. Among H. pylori positive patients, DPM levels in asymptomatic patients were lower than those in symptomatic patients ($P < 0.001$). However, gastroscopic manifestations did not vary significantly between asymptomatic and symptomatic patients ($P > 0.05$)

Conclusions Patients infected with H. pylor did not present with specific gastrointestinal symptoms. Patients with asymptomatic infection had lower levels of DPM, but their gastroscopic manifestations were similar to those of patients with symptomatic infection, and their lesions were more severe than those of H. pylori-negative individuals. This study provides a theoretical basis for considering the need for eradication therapy in patients with asymptomatic infection.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP038 Endoscopic luminal impedance planimetry of the lower oesophageal sphincter and pylorus in experimental pigs: a pilot study

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DOI 10.1055/s-0044-1783327

Aims The functional lumen imaging probe (FLIP) relies on the principle of impedance planimetry that enables direct measurement of intraluminal cross-sectional areas, allowing the assessment of intraluminal diameters, lumen geometric profiles, and wall biomechanical properties. The aim of our pilot project was to introduce this method to assess function of the lower oesophageal sphincter and pyloric muscle in experimental pigs.

Methods All measurements were accomplished in one session under general anaesthesia in six adult animals (mean weight 34.2 ± 3.6 kg). EndoFLIP 1.0 System with EndoFLIP catheters (length of measuring zone 80 mm; 16 paired impedance planimetry sensors; filling volumes: 20, 30 and 40 mL). Four major parameters were evaluated for each filling volume: estimated diameter (in mm), cross-sectional area (mm^2), distensibility defined as cross-sectional area divided by balloon distending pressure (mm^2/mm Hg), and zone compliance defined as the change in volume over a 2-cm long segment spanning five electrodes, centred around the gastro-oesophageal junction (mm^3/mm Hg).

Results In total, 132 particular readings were successfully accomplished. Most of the measured values were nearing lower average figures in healthy humans. There was a clear trend for increasing values of CSA, diameter, and balloon pressure with increased filling balloon volumes. However, the sphincter distensibility did not change with increasing filling volumes either for the lower oesophageal sphincter or pylorus.

Conclusions Endoscopic functional luminal planimetry in experimental pigs is feasible, both for the lower oesophageal sphincter and the pylorus. This is an important starting point for future experimental endoscopic trials and pharmacology studies.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP039 Evaluation of the severity of acute pancreatitis by the SIRS and SOFA scores: a single-center study of 40 patients

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DOI 10.1055/s-0044-1783328

Aims Acute pancreatitis is an acute inflammation of the pancreatic gland following autodigestion by its own enzymes. There are 2 forms: the benign interstitial edematous pancreatitis and the severe necrotizing form. It is a medical-surgical emergency whose severity can be evaluated by several scores. Our work aimed to evaluate the severity of acute pancreatitis by the SIRS (Systemic Inflammatory Response Syndrome) and SOFA (Sepsis-related Organ Failure Assessment) scores.

Methods This was a retrospective and descriptive study in the university hepato-gastroenterology department, including all patients with acute pancreatitis over 3 years from 2000 to 2023.

Results Out of a total of 40 cases of pancreatitis, the average age of our patients was 53 years + /- 4, with a sex ratio M/F of 1.22. For the history, 21.8 % of the cases (n = 7) had a regular intake of alcohol and 18.75 % (n = 6) of the cases were cholecystectomies. None of our patients was followed for dyslipidemia or had a family history of BP. The main etiology was biliary in 45 % of the cases (n = 18), followed by tumors in 17.5 % (n = 7), idiopathic in 15 %, alcohol in 10 %, metabolic in 5 %, and 7.5 % of the cases the origin was unknown. The clinical presentation was typical in the majority of cases. On imaging (abdominal CT) the CTSI score was between 4-6 in 42.5 % of cases (n = 17), greater than 7 in 35 % of cases (n = 14), and less than 3 in 22.5 % of cases (n = 9)

For severity, our series was characterized by the absence of the initial SIRS in 55 % of cases (n = 26) and the presence of the latter in 45 % of cases (n = 14). In 65 % of the cases (n = 30), the Quick SOFA score was 0, and in 12.5 % of the cases, was 1 and 2 each. The SOFA score was 0 in 80 % of cases (n = 32) and 1 in 20 % of cases (n = 8) of which 48 % (n = 6) had an initial SIRS and 52 % (n = 8) did not.

In 22.5 % of our patients, a local complication was present: collections in 7 patients, splenic thrombosis , wall off necrosis infection in one patient each. In 4 of our patients, a late complication was present: a symptomatic collection in 3 patients, exocrine and endocrine insufficiency in one patient each

Conclusions Acute pancreatitis is a condition that can range in severity from mild to severe. Among scores used to evaluate the severity , we have SIRS and SOFA scores. Our study showed a lack of correlation between the 2 scores for severe or serious AP due to the parameters to be studied for each score.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP040 Endoscopic fluoroscopy-guided rendezvous recanalization of a complete colorectal anastomotic stricture with a lumen-apposing metal stent

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Aims Colorectal anastomotic strictures affect up to 30 % of patients submitted to colo-rectal cancer surgery. However, a complete obstruction is rare. To prevent a surgical revision of the anastomosis, an endoscopic mini-invasive approach may be proposed, but the successful outcome depends on the possibility to pass a guidewire, followed by dilation or placement of a stent through the stricture. In patients with a colostomy if it's not possibile to overcome the stricture, the passage of a guide-wire can be perfomed under echoendoscopic guidance or under direct endoscopic guidance favoured by transillumination through the colonic wall as a reference. The difference between the two methods consists in the filling of the colonic loop in case of echo-endoscopy, or in a simultaneous dual endoscopic procedure in case of transillumination.

Methods A 78-year-old male patient underwent an urgent high anterior resection with transverse loop colostomy for an occlusive high rectal tumor. On postoperative day 8, he presented with anastomotic leakage and abscess formation, requiring reintervention. Ten months after surgery a colonoscopy revealed a complete anastomotic stricture, refractory to negotiation with a guidewire, thus precluding balloon dilation or stent apposition. Hence, a modified rendezvous technique was planned. A pediatric colonoscope was introduced through the colostomy, while a therapeutic gastroscope was inserted through the rectum, and both instruments were advanced to the opposing sides of the stricture. After the correct position of the scopes was confirmed by fluoroscopy, transillumination from the gastroscope made it possibile to the operator managing the colonoscope to puncture the colonic side of the stricture with a 6 French cystotome, close to the anastomotic scar. A guidewire was then passed through the fistula and retrieved within the operating channel of the gastroscope placed distally, with a rat-tooth forcep in a rendezvous fashion. Subsequently, a dilation of the fistula up to 4 mm was performed using a baloon in order to enable the deployment of a lumen apposing metal stent (LAMS), released by the endoscopist who managed the operative gastroscope. The injection of contrast medium from the colon confirmed ther correct position of the proximal and distal flanges and the LAMS patency without extraluminal leakage. The patient was discharged home on the same day.

Results At the 3-month follow-up sigmoidoscopy, the anastomosis was found to be patent, whereas the stent had migrated distally and was consequently removed. Colostomy reversal was successfully performed one day later. At the 6-month follow-up, the patient reported regular bowel movements without any residual symptom.

Conclusions Freestyle puncture of the excluded rectum using a cystotome followed by LAMS apposition during a dual endoscopic-fluoroscopic procedure appears to be a safe and effective treatment option for the recanalization of complete colorectal anastomotic strictures.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP041 EUS for Diagnosis of Ampullary Cancer in a Patient with Lynch Syndrome

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Aims Lynch syndrome is the most common cause of hereditary colorectal cancers and accounts for 1-3 % of all colon cancers [1]. Apart from the large bowel, patients are also at risk of extra-colonic tumours. In particular, they have a 2 % lifetime hazard of biliary tract cancers [2]. Nevertheless, there is limited data in the literature concerning ampullary carcinoma associated with Lynch syndrome. We report a case of MSH2-deficient cancer of ampulla of Vater, and the pivotal role of EUS in the diagnostic process.

Methods A 46-year old man had history of diabetes mellitus, hypertension, hyperlipidaemia and thyroid nodule. He suffered from young-onset colon cancer at splenic flexure in 2018, and recurrent cancer at hepatic flexure with proctocolectomy and ileostomy in 2020. Based on his MSH2 mutation status, together with a significant family history of colon and gynaecological cancers, he was diagnosed to have Lynch syndrome.

In 2021, he presented with painless jaundice without fever. Blood tests showed deranged liver function: Bilirubin 61umol/L (5-27), ALP 562 IU/L (39-97), ALT 186 IU/L (< 53), GGT 1980 IU/L (10-71). Abdominal ultrasound showed grossly dilated intra-hepatic ducts, and the common bile duct measured 1.8cm. There was a 1.4cm echogenicity at lower bile duct, suspected to be a stone. The gallbladder was distended with sludges.

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EUS showed dilated common bile duct with abrupt cutoff 2cm from ampulla. The pancreatic duct was normal in calibre, and there was no pancreatic head mass. On endoscopic view, the ampulla was bulky with normal overlying mucosa. ERCP with cholangiogram displayed similar findings to EUS. Sphincterotomy revealed a suspicious tumour mass. A plastic pigtail stent was inserted for biliary drainage. Biopsies taken showed adenocarcinoma.

Results His pre-operative PET-CT showed a hypermetabolic focus 1.4 x 1.4 x 2.4cm (SUVmax 14.9) in distal CBD and no metastatic foci. Therefore, our surgeons proceeded to Whipple's operation, which revealed a 2.2cm moderately differentiated adenocarcinoma of ampulla. The mass did not penetrate through the sphincter of Oddi and the margins were clear. The final tumour staging was pT1aN0M0. Immunohistochemistry showed loss of MSH2 staining. He underwent adjuvant chemotherapy, and there was no tumour recurrence at 2.5 years post-operation.

Conclusions Our patient had a non-exposed protruded type of ampullary cancer [3], in which the reported accuracy from endoscopic biopsy is only 50 % [4]. This is because cancerous tissue is only found in deeper mucosal layers, and biopsy from superficial tissue will give a false negative result. EUS is an invaluable tool especially for this subtype of ampullary cancer, and it is the most sensitive imaging modality for lesions less than 2cm [5]. Our case illustrated the essential role EUS played in the diagnosis of this MSH2-deficient ampullary cancer associated with Lynch Syndrome.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP042 Photo-documentation during upper GI endoscopy in Letterkenny University Hospital, to compare with European Society of Gastrointestinal (ESG) endoscopy recommendation

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Aims

Letterkenny University Hospital, serving as the primary endoscopy center in Donegal, Republic of Ireland, plays a crucial role in diagnosing gastrointestinal disorders. This audit is conducted to determine the extent to which the endoscopy service at Letterkenny University Hospital adheres to the European Society of Gastrointestinal Endoscopy (ESGE) guideline's recommendations on photodocumentation. Compliance with these guidelines ensures standardized protocols, increased diagnostic yield, support in medicolegal cases, improved communication among healthcare practitioners, and the reduction of unnecessary images.

Methods Our audit involved the review of images saved on the EndoRaad server, which stores endoscopy images from all procedures performed at Letterkenny University Hospital. We examined 827 upper GI endoscopy procedures conducted between May 1, 2023, and July 31, 2023. Of these, 23 procedures were excluded as they did not require photodocumentation of all eight recommended anatomical locations. We assessed the images captured according to ESGE recommendations.

Results Among the audited procedures, only 9 % (76 out of 804) complied with the ESGE guidelines, capturing images of all eight prescribed anatomical sites. The most frequently captured images included the second part of the duodenum (88 %), the location 2cm above the squamocolumnar junction (Z Line) (86 %), and the cardia in inversion (85 %). Conversely, the least frequently captured images were the angulus in partial inversion (17 %), the upper esophagus (36 %), and the upper part of the lesser curvature (31 %). The exclusion of 23 images resulted from reassessment (9/23), technical issues (6/23), procedural matters (6/23), and anatomical or functional anomalies (2/23).

Conclusions An identified limitation of this audit was the absence of labels on certain images, which posed challenges for auditors in correctly identifying anatomical landmarks. These findings indicate that the photodocumentation practices during upper GI endoscopy at Letterkenny University Hospital do not align with ESGE guidelines. Possible reasons for non-compliance may include endoscopists' lack of awareness of the ESGE guidelines and well as the ESGE recommendations not being part of National Quality Assurance and Improvement Speciality (NQAIS) programme Ireland. [1–3]

To address these findings, our future actions involve local dissemination of ESGE recommendations, conducting brief surveys to gauge endoscopists' awareness and concerns, and planning a reaudit to expedite our ongoing quality improvement project.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP043V Ist Per-Oral Endoscopic Septotomy(POES) Procedure for the Management of a long standing Symptomatic Zenker's diverticulum in this part of the world

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Abstract Text A 75-year-old Male with multiple comorbidities presented to us with symptomatic Zenker's diverticulum. Peroral Endoscopic Septotomy (POES), a modified Z-POEM), was performed. The submucosal injection was done. About 2.5 cm mucosal incision was given directly on the septum along the longitudinal axis of the septum. The submucosal space was created and entered. The thick cricopharyngeal muscle was cut completely. Submucosal dissection was carried out on both sides of the septum with simultaneous cutting of the exposed septum. The dissection was continued till the base of the septum. It was followed by partial mucosectomy on either side of the divided septum. The mucosal incision was closed with endoclips. [1]

Post-procedure esophagogram showed a tiny residual diverticular pouch with no leak. After 12 weeks, the patient is asymptomatic.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/fc07fea5-5318-4a16-bfac-9241596a036d/Uploads/13821_POES_E%20Final%20ESGE.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP044 Clinical efficacy of endoscopic vacuum therapy (VACStent and EsoSponge) for wall defects after upper GI surgery

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Aims Endoscopic vacuum therapy (EVT) is an emerging and successfully treatment option for
upper gastrointestinal wall defects (anastomotic leaks, acute perforations and bariatric complications). EndoSponge (ES) and VAC-Stent (VS) are commercially available and have demonstrated efficacy. We describe and compare the efficacy of ES and VS in a tertiary referral center.

Methods Prospective observational study (January 2023 and November 2023) was performed in patients with anastomotic leakage or acute perforation after esophagectomy and gastric reconstruction treated with intraluminal EVT as first-line (n = 7; ES = 6 and VS = 1) or as second-line treatment after failure of C-SEMS (n = 3; ES = 2 and VS = 1) or ES in first line (n = 2; VS = 2). The primary outcome measure were technical success and clinical efficacy. Secondary outcomes included duration of treatment, number of EVT changes and adverse events

Results Ten patients were included (mean age 63.3 years). Mean mucosal defect, distance to dental teeth and days to diagnosis were 6.3 mm, 23.4 cm and 13.2; respectively. Complete mucosal recovery was achieved as first-line option in 5 out of 7 patients (ES = 67 %, VS = 100 %). Clinical and technical efficacy was obtained in 100 % in second-line. Median duration of EVT treatment until mucosal recovery was 10.8 days (range 5 – 25), with a median of 2.3 and 1.2 changes per patient in first and second-line; respectively. No EVT-associated complications were noted.

Conclusions A combined EVT-approach (ES and VS) for mucosal defects after upper GI surgery presents a very high efficacy. Location of the anastomotic leakage and size of mucosal defect facilitate the selection of the best option.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP045 The "colonic single-stripe" sign: An evidence clue of ischemic colitis

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Abstract Text Although there are no pathognomonic signs, "colonic single-stripe" is highly specific. [1-5]
A 58-year-old female presented with crampy abdominal pain and rectal bleeding. Abdomen was soft and non-tender, with normal bowel sounds. Laboratory investigation showed reduction in hematocrit and elevated inflammatory markers. An abdominal CT scan was performed which revealed a left-sided colitis ruling out diverticulosis. Potential infectious causes were ruled out and the patient underwent colonoscopy which showed a linear ulcer running longitudinally the antimesenteric colonic wall ("colonic single-stripe sign"). Further, microscopic evaluation of the biopsied tissue revealed findings suggestive of ischemic colitis. [1–5]
Colonic signle-stripe sign in colonoscopy is highly suspicious of colonic ischemia.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP046 Recurrence of upper gastrointestinal bleeding in an intubated patient with an actively oozing duodenal ulcer in a difficult anatomical site and successful hemostasis with an Over-The-Scope Clip

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Abstract Text We describe a 79-year old man who was hospitalized intubated in the intensive care unit due to severe exacerbation of COPD and who presented in-hospital melena. The patient underwent gastroscopy, where in the second part of the duodenum (D2) we identified blood and two Forrest Ib ulcers, each treated with adrenaline injection and through the scope clips. After 72 hours and initiation of anticoagulant therapy the patient presented a recurrence of bleeding, he underwent endoscopy again and we identified an actively oozing duodenal ulcer successfully treated with adrenaline injection and an Over-The-Scope Clip placement. [1–5]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP047V Upper gastrointestinal bleeding in a patient with a history of laparoscopic gastric plication bariatric surgery: Beware of the bleeding site inside the folds

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Abstract Text Laparoscopic gastric plication is a restrictive bariatric procedure. [1–3]

A 39-year-old man with history of gastric plication surgery (for morbid obesity) presented with melena and episode of fainting. The patient was immediately supported with intravenous fluids and transfusions, intravenous administration of proton pump inhibitors and after stabilization (within 24 hours) he underwent a gastroscopy where below the GEJ in retrograde inspection we identified an area of concentrically folded stomach mucosa. After a detailed inspection and unfolding of the gastric mucosa we discovered 2 ulcers (1cm in diameter) with red flat spots.

Gastric plication is accompanied by some risk of complications.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/0d73679e-b8dc-4858-923d-49306670b135/Uploads/13821_Video.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP048V Anorectal variceal bleeding successfully treated with injection of a sclerosing agent used in sclerotherapy of varicose veins of the lower extremities (ethanolamine)

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Abstract Text Anorectal varices are relatively common in patients with portal hypertension. [1–5]

A 76-year-old female patient with a history of hepatitis B virus-related liver cirrhosis presented with multiple episodes of hematochezia. The patient was hemodynamically stable with significant reduction in hematocrit. She underwent sigmoidoscopy which revealed enlarged anorectal varicose veins. The bleeding vessels were treated successfully with with injection of a sclerosing agent used in sclerotherapy of varicose veins of the lower extremities (ethanolamine).

Anorectal varices are a significant source of bleeding in patients with portal hypertension.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/fe39ceec-dc13-46e8-8ede-1cc5a865606f/Uploads/13821_Video.mp4

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eP049V Over-the-scope clip for recurrent peptic ulcer hemorrhage: Use of a novel tool as a rescue treatment

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Abstract Text Peptic ulcer is the most common cause of nonvariceal upper gastrointestinal bleeding. [1–5]

A 83-year-old patient, hospitalized for urinary tract infection, manifested in-hospital melena. Upper endoscopy was performed which revealed a Forrest IIa posterior duodenal bulb ulcer. Hemostasis was achieved with epinephrine injection and a through-the-scope clip placement. On the 5th day of hospitalization the bleeding reccured and he underwent a repeat endoscopy. An active (oozing) hemorrhage was detected which was treated with the utilization of the over-the-scope clip system.

over-the-scope clip is an effective and safe rescue treatment for persistent/recurrent bleeding.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/d23a826c-bc54-4d7f-8d1c-02f2b0d7a6c2/Uploads/13821_Video.mp4

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eP050V Parastomal variceal bleeding successfully treated with tissue adhesive injection (cyanoacrylate)

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DOI 10.1055/s-0044-1783339

Abstract Text Peristomal varices occur in patients with portal hypertension and a preexisting stoma. [1–6]

A 48-year-old female patient with a medical history of gastric bypass surgery (for morbid obesity) and portal hypertension due to postoperative portal vein thrombosis presented with hematemesis. Urgent gastroscopy revealed spurting hemorrhage of a parastomal varicose vein which was succesfully treated with cyanoacrylate glue injection.

Ectopic parastomal varices present a clinical challenge. As no general management guidelines exist, treatment of bleeding parastomal varices should continue to be case-dependent.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/1c841833-dbf0-4500-ab50-a07991b8ff27/Uploads/13821_Video.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP051 Retrograde Endoscopic Retrograde Cholangiopancreatography (ERCP) via Endoscopic Ultrasound-Guided Gastroenterostomy (EUS-GE) in patients with proximal duodenogastric outlet obstruction

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Aims Malignant proximal duodenal obstruction often results in gastric outlet obstruction (GOO), complicating conventional ERCP procedures. This case series describes an approach to circumvent these challenges.

Methods Four patients (three with cholangiocarcinoma and one with metastatic breast cancer to the liver hilum) who developed GOO and cholestasis due to tumor compression were included. All patients presented with Bismuth-Collette IV or metastatic tumors behaving similarly. We employed EUS-guided gastroenterostomy using hot LAMS to alleviate GOO symptoms. Additionally, hepaticogastrostomy was performed in three patients to drain the left liver. For right-side and remaining liver drainage, retrograde ERCP was conducted by advancing a therapeutic gastroscope with a cap through the EUS-GE towards the duodenum.

Results Successful retrograde ERCP, dilatation, Radiofrequency Ablation, and multiple stent placements were achieved in all patients throughout the remaining lifespan.

Conclusions In patients with proximal duodenogastric obstruction, retrograde ERCP with intervention is feasible through an EUS-GE using a therapeutic gastroscope.

Conflicts of interest Pham KDC is a consultant, speaker and trainer for Olympus EMEA, anc consultant for Taewoong Medical and Ziehm imaging

eP052 Clinical profile of parietal cell dysfunction in multiple gastric neuroendocrine tumors

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Aims Parietal cell dysfunction (PCD), a novel disease, has been to cause multiple gastric neuroendocrine tumors (GNETs). In PCD, the proton pump in parietal cells doesn't work well, causing a decrease in gastric acid secretion. This results in an increase in G cells in the pylorus, resulting in hypergastrinemia, which may induce a hyperplastic or neoplastic transformation of the enterochromaffin-like cells in the stomach fundus. Rindi *et al.* classified GNETs into three types. However, multiple GNETs caused by PCD do not fit into any of the existing types. Reports on PCD remain limited, and its diagnostic criteria remain unestablished. Our institution has managed several cases of PCD with multiple GNETs. This report aims to clarify the clinical characteristics of these cases.

Methods The diagnosis of PCD was made if the patient fulfilled the following two criteria. First, achlorhydria should be documented through 24-hour intragastric pH monitoring. Second, minimal inflammation and atrophy should be present in the background fundic gland mucosa histologically, and on immunohistochemistry, unequivocal parietal cells should be negative for H^+/K^+-ATPase. Four cases met the above criteria in our hospital and an affiliated hospital. The clinical characteristics of these cases, including their endoscopic findings, were analyzed.

Results The patients' ages ranged from 37 to 50 years (mean: 42 years). All patients were asymptomatic and were referred to our hospital due to multiple gastric polyps. All patients were negative for anti-*Helicobacter pylori* antibodies. Three patients did not undergo eradication, but only one patient had a history of eradication. All patients denied intake of proton pump inhibitors and potassium-competitive acid blockers, and all patients had a serum gastrin level above 2,500 pg/mL. Three patients had no anti-parietal cell antibodies, while only one patient had low-positive titers (1:20). Lastly, all patients were negative for anti-intrinsic factor antibodies. Esophagogastroduodenoscopy revealed multiple reddish and yellowish subepithelial tumors in the body and fornix of the stomach, and the final diagnosis of NETs was obtained via biopsy. Two patients had more than 20 lesions each, and the other two cases had approximately 10 lesions each. Almost all lesions were less than 5 mm, with one or two lesions larger than 10 mm in two cases. No atrophy of the background mucosa was observed. Regular arrangement of collecting venules was observed, but somewhat indistinct, in three cases. White globe appearance (WGA) was also observed in the stomach fundus in all cases. Only one case was accompanied by sticky adherent dense mucus that was difficult to wash off. [1–2]

Conclusions PCD should be a differential diagnosis in patients presenting with multiple GNETs with an unknown etiology. Endoscopic findings caused by hypergastrinemia, such as WGA, may be helpful in the diagnosis of PCD.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP053 The natural clinical course of endoscopic transpapillary gallbladder drainage (ETGBD) for benign acute cholecystitis

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Aims Endoscopic transpapillary gallbladder drainage (ETGBD) in patients with symptomatic gallbladder (GB) diseases is a safe and feasible bridge therapy for patients at high risk of surgery or with terminal liver disease awaiting transplantation. However, there are few reports considering the long-term outcomes in natural clinical courses in benign symptomatic GB diseases.

The presented study investigated the long-term natural clinical outcomes of ETGBD in patients with acute cholecystitis at high risk of surgery or who refused to undergo cholecystectomy.

Methods Twenty-six consecutive patients with acute cholecystitis were enrolled from March 2007 to December 2011, excluding malignancy-related cholecystitis, and were followed up to September 2023. Endoscopic transpapillary GB stenting (ETGS) using a 7 Fr double pigtail stent (length, 7 to 15 cm) or endoscopic naso-GB drainage (ENGBD) using a 5 Fr nasobiliary tube was performed. Clinical outcomes, adverse events, and event-free follow-up duration were observed whenever symptoms developed through ambulatory follow-up monitoring or phone consultations. [1–2]

Results ETGBD was successful in 26 (81.3 %) of the 32 candidates. The indications were refusal of operation in 13 (50 %) patients, high risk for an operation in 2 (8 %) patients, and both categories in 11 (42 %) patients. The average procedure time from intubation of the duodenum to completion of GB drainage was 19.3 (6.7) minutes in ETGS and 13.6 (5.9) minutes in ENGBD, respectively. During the follow-up period (median 3564 days, range 494-6,074 days), nine patients were lost to follow-up at least one year later. Late adverse events requiring ERCP developed in 8/18 (44.4 %) patients in the ETGS group and 3/8 (37.5 %) in the ENGBD group. The most common cause of adverse events was biliary stones (6/18) in the ETGS group and cholecystitis (2/8) in the ENGBD group, respectively. Distal migrated or complicated stents were all removed and then followed up. A protocol-based median complication-free duration was 4,664 days (range 30–6,074 days), as calculated by the Kaplan-Meier method; 4,664 days (302–6,074 days) in ETGS and 3,029 days (30–4,375 days) in ENGBD, respectively (p-value = 0.997).

Conclusions Primary ETGBD in benign acute cholecystitis is technically feasible and effective for a long time in patients at high risk for surgery or who refuse the operation. ETGS tended to provide a longer event-free duration than ENGBD without statistical difference.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP054 The contribution of endoscopic ultrasonography in biliary duct dilatation without visible imaging obstruction

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Aims Endoscopic ultrasonography (EUS) is an effective and primordial procedure for exploring the biliopancreatic junction abnormalities. However, its results depend of the operator expertise, and its availability is currently insufficient in our regions.

The aim of this study is to determine the role of endoscopic ultrasonography in assessment of etiological diagnosis of bile ducts dilatation when conventional imaging is inconclusive.

Methods This is a retrospective descriptive study conducted from January 2009 to May 2022, including 51 patients with intra-and/or extra-hepatic bile duct dilatation without visible obstacle on imaging. TODANI classification was considered for common bile duct (CBD) cystic dilatations.

Results We enrolled 51 patients responding to inclusion criteria, which represented 11 % of all indications of EUS. The mean age of our patients was 60 ± 12,10 years, with a female predominance.

EUS showed a dilated CBD in 56,9 % of cases with a double duct sign in 5,9 % of cases. The main diagnoses revealed were a cystic dilatation of CBD in 43,1 %, predominated by type Ia and Ib in 38,1 % and 4 % respectively, a choledocholithiasis in 5.9 % of the cases, an ampulloma in 3,9 % of cases, and papillomatosis of the bile ducts in 2 % of cases. The pancreatic head cancer was suspected during echo-endoscopy and then confirmed histologically in 2 % of patients. However, echo-endoscopy allowed us to exclude biliary ducts dilatation in 43.1 % of our patients.

Conclusions Our study confirms the prominent place of EUS in etiological profile of bile ducts dilatations when imaging is inconclusive.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP055 Long-term outcomes of endoscopic ultrasound-guided pancreatic duct interventions: a single tertiary-care center experience

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Aims Endoscopic ultrasound-guided pancreatic duct intervention (EUS-PDI) is one of the most technically challenging procedures. There remains a knowledge gap due to its rarity. The aim is to report the accumulated EUS-PDI experience in a tertiary center.

Methods Single-tertiary center, retrospective cohort study of prospectively and consecutive collected data during the study period, from January 2013 – June 2021.

Results In total, 14 patients (85 % male; mean age, 61 years, range:37-81) and 25 EUS-PDI procedures for unsuccessful endoscopic retrograde pancreatography (ERP) were included. Principal etiology was chronic pancreatitis with pancreatic duct obstruction (78 %). EUS-guided assisted (colorant and/or guidewire – *rendezvous*) ERP was performed in 14/25 (56 %); and transmural drainage in 11 procedures, including pancreaticogastrosmy in 9/25 (36 %) and pancreaticoduodenostomy in 2/25(8 %). Overall technical and clinical success was 78.5 % (11/14). Three (21 %) patients required a second procedure with success in all cases. Two failed cases required surgery. Three (21 %) adverse events (AEs) were noted (fever, n = 1; perforation n = 1; pancreatitis n = 1). Patients underwent a median of 58 months (range 24-108) follow-up procedures for re-stenting. Spontaneous stent migration was detected in 50 % of cases. [1–3]

Conclusions EUS-PDI is an effective salvage therapy for unsuccessful ERP, although 21 % of patients may still experience AEs. In case of EUS-guided *rendezvous* failure, it can cross over to a transmural drainage.

Conflicts of interest JB Gornals, Consultant for Boston Scientific

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eP056 Capsule endoscopy: beyond the Small Bowel

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Aims Capsule endoscopy (CE) is considered the first line for the investigation of obscure gastrointestinal bleeding after conventional non-diagnostic endoscopic examinations. A detection rate of lesions outside the small bowel segment has been reported to range from 3.5 % to > 30 %.
To analyze the role of capsule endoscopy in the identification of lesions outside the small bowel segment that have not been identified in conventional endoscopy in patients with suspected obscure gastrointestinal bleeding (OGIB).
Methods Retrospective study, in which all CE examinations performed in patients with a probable diagnosis of ODH in which conventional endoscopic examinations were negative between 2013 and 2017 were included. Lesions outside the small bowel segment were considered those that were not identified between the second portion of the duodenum and the ileocecal valve.
Results A total of 202 patients with suspected ODH underwent CE. 76.7 % of patients had occult HDO and 23.3 % had overt HDO. CE demonstrated a probable diagnostic cause in 77.2 % of patients. CE revealed lesions not identified on conventional endoscopy outside the small bowel segment in 46 % of patients, of which 7.5 % had active bleeding. The lesions most commonly found in the upper gastrointestinal tract were erosions (14.4 %), polyps (5 %) and angiodysplasias (4 %). In the lower gastrointestinal tract, the most common lesions were angiodysplasia (8.9 %) and polyps (2 %). The cecum was reached in 93.6 %. Capsule retention occurred in 3.4 %. The average passage time in the small bowel was 4 hours and 28 minutes.
Conclusions CE proves to be effective and safe in the diagnosis of ODH, also proving to be a tool in the identification of lesions outside the small bowel segment, considering the results obtained in our study.
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP057 Improved standards of colonoscopy in Inflammatory Bowel Disease through implementation of key performance measures – A quality improvement initiative

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Aims Improving the quality of colonoscopy in inflammatory bowel disease is expected to improve clinical outcomes for patients. The European Society of Gastrointestinal Endoscopy (ESGE) recently published key performance measures for IBD colonoscopy assessment. This study aimed to assess the impact of implementing key performance measures and assess for sustainable improvement through a multimodal education intervention.
Methods A baseline retrospective analysis was performed in patients with established IBD between June and August of 2022 at a tertiary hospital. The key performance measures included 1) pre-procedure metrics including indication, consent, and safety checklist (target of 100 %) and 2) bowel preparation score, photo-documentation, disease activity scores, adequate biopsies, use of high-definition endoscopy and chromoendoscopy. There were six proceduralists involved and data was collected from electronic medical records including endoscopy and histopathology results. The ESGE performance measures were used to set minimum standards and we have adopted overall standards for our unit based on the ECCO and SCENIC consensus guidelines. Over 12 months, proceduralists and endoscopy nursing staff were engaged with educational interventions including didactic teaching for one hour and diagrammatic reminders in the endoscopy suites of the ESGE key performance measures. A post-implementation analysis was conducted at 1 year from baseline, from August to November of 2023.
Results Baseline standards showed suboptimal performance in the use of disease activity scores and chromoendoscopy. Educational interventions were implemented and after 12 months, a repeat analysis of 50 consecutive patients showed significant improvement in all performance measures (see Table 1).
Conclusions Quality metrics are important and underrecognised components in colonoscopy for IBD patients and form an integral part of improving patient care. Our study demonstrated that the implementation of the ESGE key performance measures is effective in improving the quality of colonoscopy assessment in IBD patients, identifying areas requiring further development and increasing the dysplasia detection rate. Acknowledging quality attrition over time, we recognise that regular teaching and education are required in addressing the challenge of sustainable long-term improvement.
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP058 Wilkie syndrome and nutcracker syndrome – both entities in the same patient

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Abstract Text Female patient, 19 years old. She went to the emergency department multiple times due to nausea, vomiting and weight loss, but her basic medical exams revealed no abnormalities. She reported similar episodes since childhood. In one episode, she performed a CT scan, which identified an aorto-mesenteric angle of 21º and an aorto-mesenteric distance of 4mm, compatible with Wilkie´s syndrome. Compression of the left renal vein by the superior mesenteric artery was also observed, configuring the diagnosis of Nutcracker syndrome. Total parenteral nutrition was initiated because of intolerance to oral feeding. It was decided to perform a laparoscopic duodenojejunostomy, which went without complications. The patient remained assymptomatic after the procedure. We present a rare case of a patient who had two rare entities, one of them with the involvment of the gastrointestinal tract. [1–5]
Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP059 Complex Management of Hemobilia: A Case Study

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Aims The aim of this case is to delineate the multidisciplinary management of symptoms post-Endoscopic Retrograde Cholangiopancreatography (ERCP). This report highlights the challenges in diagnosing and treating hemobilia, in

a 78-year-old female patient with multiple comorbidities including obesity, type II diabetes, and many allergies.

Methods The patient's clinical journey began with a history of acute lithiasic pancreatitis and Chlamydia pneumonia in late 2022. In February 2023, the patient developed cholangitis, leading to an ERCP procedure, which involved sphincterotomy and stone removal. Post-ERCP, the patient experienced melena with a significant drop in hemoglobin level, prompting further diagnostic and therapeutic interventions over the following weeks. These included multiple blood transfusions, an esophagogastroduodenoscopy (EGD) and abdominal computed tomography (CT) scans with contrast without any significant findings. A colonoscopy highlighted diverticulitis, however did not identify sources of active bleeding. The patient subsequently developed consistent lower extremity edema: a venous EchoColorDoppler depicted a bilateral deep vein thrombosis with the need to place a caval filter. Another major episode of hematemesis occurred: first EGD and then ERCP proved that the cause was hemobilia, therefore a metallic biliary stent and clips were placed. However, the patient's bleeding continued and made an angiography necessary, which described an aneurysm of the artery supplying the fifth hepatic segment and an arterio-biliary fistula. At this point, the actual cause of the hemobilia was effectively treated with embolization which resulted in immediate stop of the bleeding.

Results This case study highlights the importance of vigilance of and rapid response to post-ERCP events: the patient's management was complicated by multiple comorbidities, requiring a tailored approach to both diagnostic and therapeutic interventions. Despite the knottiness of the event, the patient was successfully stabilized and discharged after 30 days of hospitalization.

Conclusions The successful management of this presentation emphasizes the need for a comprehensive, multidisciplinary approach when dealing with hemobilia: 65 % of cases reported in the literature are iatrogenic. In 9 % of circumstances, however, the cause is found in vascular alterations ranging from malformation to arterio-biliary fistula, to pseudoaneurysm. In view of the latter, in case of clinically meaningful post-ERCP bleeding (loss equal or greater than 3 points of hemoglobin), a CT angiography is always to be considered before an endoscopic reassessment.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP060V Schwannoma of the ascending colon treated by Endoscopic full-thickness resection

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Abstract Text We report the case of a 47-year-old man with no personal history of disease who was under follow-up for colon adenomas. Colonoscopy revealed a 20 mm pseudodepressed submucosal lesion in the hepatic flexure, which was treated with endoscopic full thickness resection (EFTR) as shown in the video. Pathology of the lesion revealed a schwannoma, confirmed by immunohisto-chemical staining with S100 and CD32, and absence of both CD117 and actin expression. Schwannomas are submucosal lesions that arise from Schwann cells and have low malignant potential. They are extremely rare in the gastrointestinal tract, especially in the colon. Regarding treatment, EFTR has been postulated as a valid and safe technique as described in several cases in the literature. [1–8]

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/2a71bab2-89e6-41e4-b188-789e8e052cbb/Uploads/13821_Schwannoma_of%20the%20ascending%20colon%20treated%20by%20endoscopic%20full-th....mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP061 Bleeding Intestinal lymphangiectasia, Jejunal lesion; case report

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Abstract Text Aim: To present a case of jejunal lymphangiectasia in a 51-year-old female without any prior chronic medical conditions, emphasizing its rare association with gastrointestinal bleeding.

Methods: Detailed clinical history, diagnostic workup, and histopathological findings were reviewed, including endoscopy and laparoscopic resection.

Results: Anemia persisted despite initial investigations. Video capsule endoscopy revealed a mucosal lesion with blood oozing in the proximal jejunum. Enteroscopy showed focal lymphangiectasia, leading to successful laparoscopic resection and symptom resolution [1–9].

Conclusion: Timely recognition and management of this rare condition are essential for improved patient outcomes.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP062 Band-assisted EMR as the method of choice in the treatment of duodenal NET

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Aims Neuroendocrine neoplasms of the duodenum are submucosal, often small (up to 10 mm) neoplasms that require correct tactics for endoscopic removal. Therefore, our main aim was to define this tactic.

Methods Analysis of all available recommendations for the treatment of duodenal NET:1) ENETS Consensus Guidelines Update for Gastroduodenal Neuroendocrine Neoplasms;2) Endoscopic submucosal dissection for superficial gastrointestinal lesions: European Society of Gastrointestinal Endoscopy (ESGE) Guideline – Update 2022;3) NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines) Neuroendocrine and Adrenal Tumors.

Results After studying all available recommendations, we did not get a clear answer on the correct choice of D-NET removal method. The study included 11 patients who had D-NET of the supraampullary part of the duodenum with a size of 6 to 12 mm. All patients underwent band-assisted EMR. First of all, an indigo carmine solution was injected under the formation.neoplasms. The next stage was the imposition of a latex ligature on the formation according to the standard method. After that, EMR was performed with an endoscopic loop in Gastro-coag mode (BOWA-400). At the place of removal, the muscle layer is clearly visualized, without signs of damage to the latter. The defect is closed with an endoscopic clip. Histological examination confirms the completeness of the resection.

Conclusions Endoscopic band-assisted EMR is the method of choice for the removal of small duodenal NETs. Since interventions on the duodenum have a high risk of complications, this method is safe and effective, ensuring the completeness of the resection. ESD is economically impractical and technically more difficult with a higher risk of complications. [1–3]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP063 Isoperistaltic Ileocolonic Anastomosis after Ileocecal Resection Reduces Colonoscopic Anastomosis-to-Small-Bowel Time

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Aims Side-to-side antiperistaltic ileo-colonic anastomosis (APICA) is wildly used technique in Crohn's disease (CD) patients. Its configuration makes the neo-terminal ileum intubation difficult, and might reduce rates of appropriate scoping, as required for assessment of disease relapse. The isoperistaltic ileo-colonic anastomosis (IPICA) may improve post-surgical endoscopic follow up of CD patients.

Our aim was to compare safety, efficacy, recurrence rates and feasibility of ileo-colonoscopy (IC) between the two anastomotic configurations.

Methods Data on all consecutive CD patients aged ≥ 18 years at a single tertiary center, who underwent ileo-colonic resection from 1/4/10 to 31/3/22, were collected retrospectively. Patients with anastomotic types other than APICA and IPICA and lack of IC within 18 months from surgery, were excluded.

Results A total of 143 patients were included [82 males (57.3 %), age 38.2 ± 14.3 years, disease duration 10.1 ± 9.5 years]. Twenty-six patients (18.5 %) underwent IPICA and 117 patients (81.8 %) APICA surgery. Patients did not differ in age, gender, BMI, smoking status, biologic treatment exposure and disease duration at time of surgery (p = NS). Duration of surgery was significantly longer for IPICA than APICA (295.4 ± 70.2 min vs 249.3 ± 60.6 min, p < 0.001, respectively). Rates of laparoscopic, lap-to-open and open procedures differed (57.7 %, 30.8 % and 11.5 % for IPICA vs. 40.2 %, 13.7 % and 46.2 %, for APICA, respectively; p = 0.003). Hospitalisation duration and post-surgical complications (Clavien-Dindo classification) were comparable (p = NS). Fifteen patients were re-admitted with post-surgical complications within 90 days (1/26 (3.8 %) in IPICA vs 14/117 (12.0 %) in APICA group, p = 0.124). At post-surgical IC, clinically significant anastomotic disease recurrence (Rutgeerts score ≥ 2b) was observed in 38.5 % of IPICA vs 34.2 % of APICA, (p = 0.820). Excluding patients with stricture at anastomosis (Ri = 4s), no failure of small bowel (SB) intubation was observed in IPICA vs 11 patients (10.5 %) in APICA group, yet statistical significance was not met (p = 0.216). SB intubation time (defined as time from first image of anastomosis to first image of SB) was significantly shorter for IPICA (1.2 ± 0.9 min) vs APICA (3.0 ± 3.0 min, p < 0.001).

Conclusions IPICA and APICA are comparable in procedural safety, anastomotic disease recurrence and rate of re-admissions. IPICA necessitates longer surgery time yet allows for significantly easier SB intubation with no intubation failure.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP064 Trans-nasal endoscopy – A viable post pandemic recovery option?

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Aims There have been increasing demands on endoscopy services across the UK over recent years, heightened significantly by the COVID-19 pandemic. Whilst oesophagogastroduodenoscopy (OGD), is the standard upper gastrointestinal (UGI) investigational tool, it has recognised shortfalls. Trans-nasal endoscopy (TNE) offers an established alternative. It has been shown to be better tolerated, less aerosol generating, have fewer complications and possesses the flexibility to be utilised outside of the traditional endoscopy setting with fewer staff. This comparative study investigates differences in qualitative and quantitative outcomes in un-sedated OGD (uOGD) and TNE (uTNE).

Methods 144 participants were selected via non-random convenience sampling. 72 patients underwent uOGD and uTNE respectively. Modified questionnaires were used to collect participant responses to standardised questions across both cohorts. Patient demographic and procedure outcome data was retrieved from secure NHS databases. Non-parametric testing assessed statistically significant differences in participant survey responses.

Results Patient tolerability and overall satisfaction was significantly higher in uTNE (P < 0.0001,P < 0.0001) with a 48.7 % increase in positive procedure tolerability (P < 0.0001) and a 44.1 % decrease in poor patient experience (P < 0.0001) observed. uTNE procedures on average lasted 3 seconds longer while J-manoeuvre and D2 intubation rates were 1.4 % lower in uTNE, all statistically insignificant (P = 0.95,P > 0.99,P > 0.99). All procedures had successful diagnoses with sufficient biopsy yields. uTNE patients spent 3.2 fewer days on the 2 week wait cancer pathway.

Conclusions uTNE was superior in patient tolerability, non-inferior in diagnostic capability, and its use led to shortened times on management pathways when compared to uOGD. These findings further support those from the existing TNE literature and allow us to consider TNE as an alternative to uOGD as we move forward in the national endoscopy service recovery post pandemic. Future studies may benefit from an expenditure-benefit analysis and investigate

potential therapeutic applications of TNE. To help alleviate pressures on the endoscopy service the team at ICHNHS Trust are now looking at utilising uTNE outside of the endoscopy setting (i.e. outpatient clinics) to help free up capacity within endoscopy and reduce patient waiting lists going forward. [1–7]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP065 Novel use of sedated trans-nasal endoscopy as an alternative to oesophagogastroduodenoscopy under general anaesthesia

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DOI 10.1055/s-0044-1783354

Aims There have been increasing demands on endoscopy services nationally over recent years, heightened significantly by the COVID-19 pandemic. Oesophagogastroduodenoscopy (OGD), the standard upper gastrointestinal (UGI) investigational tool, is not tolerated well with conscious sedation by a sub-group of patients. These patients are then usually scheduled for procedures with anaesthetic support. A resource intensive procedure with generally lengthy waiting times. Trans-nasal endoscopy (TNE) has been shown to be better tolerated and is non-inferior in diagnostic capacity than conventional OGD. This study investigates qualitative patient outcomes in patients offered a sedated TNE (sTNE) as an alternative to an OGD under general anaesthetic or propofol (GA OGD).

Methods 14 patients who had failed OGD under conscious sedation were selected from the GA OGD waiting list. These patients were offered and agreed to a sTNE procedure. Questionnaires were used to collect participant responses in Likert-scale format to standardised statements regarding patient experience with open ended free text input options. [1–7]

Results 100 % of the patients who were unable to countenance sedated OGD were able to tolerate sTNE. 100 % of patients agreed that the procedure was comfortable and would therefore recommend the procedure as an alternative to an OGD to loved ones. All ten patients that were OGD-experienced expressed that the sTNE was superior in tolerability when compared to their previous OGD. Free text feedback analysis revealed concurrent outcomes; 57.1 % of feedback specifically indicated the TNE procedure was well tolerated with 97.2 % of all feedback representing positive overall patient experience.

Conclusions sTNE was shown to offer a high patient tolerability and allowed these patients to be removed from the GA OGD waiting list. This study also provides evidence that sTNE can be used as a reliable alternative for GA OGDs. The potential benefit of using sTNE to minimise waiting times and free up precious healthcare resources warrants further research to fully substantiate these outcomes.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP066 Evaluation of efficiency and safety profile of colon lesions resection using endoscopic submucosal dissection (ESD) – single operator experience in non-academic center

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Aims ESD is a prominent technique for colorectal lesion resection in Asian countries. There is not enough data on results of ESD treatment in Europe. The aim of this study is efficiency and safety profile analysis of a large group of patients with colorectal lesions resected by the ESD method in a non – academic center in Poland

Methods Retrospective analysis of 228 patients with colorectal lesions treated by ESD in the (2019-2022) years in Center of Early Diagnostics and Treatment of Gastrointestinal Cancer, Provincial Integrated Hospital in Elblag, Poland.

Results 228 patients (median age 65,7 [20 -91]) years were treated by the ESD method. Mean size resected lesions were 40,9 [8,0 – 160,0] mm. En -bloc resection was done 215/228 (94,3 %) patients. R0 resection in 209/228 (91,7 %) patients was done. Colorectal cancer detected in 56/228 (24,6 %) patients. Complications occurred of 17/228 (7,5 %) patients, in half of them 9/17 was minor complication, according to Clavien Dindo Classification grade 2. The mean follow up period was 341,1 (231,9) days. Recurrence after ESD were detected in 3 (2,6 %) patients – all of them were treated endoscopically using FTRD method

Conclusions ESD is an effective method, with low risk of complications allowing en-bloc resection of colorectal lesions including early colorectal cancer. Results of treatment in non – academic European center are similar to Asian countries

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP067 Transanal endosopic suturing of a recto-urethral fistula

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Aims Present a novel endoscopic transrectal treatment method for recto-urethral fistula after Robot – Assisted Radical Prostatectomy (RARP) with the use of Apollo OverStitch SxTM Endoscopic Suturing System

Methods A 63-year-old male patient with prostate cancer (adenocarcinoma prostatae Gleason 3 + 4 = 7, grade group 2) underwent RARP procedure. The surgery and early postoperative period were uneventful. On the 7th day after the surgery, after removal of the Foley catheter, the patient was found to be passing urine with fecal matter and gas bubbles. Due to the clinical suspicion of a recto urethral fistula a flexible cystoscopy and sigmoidoscopy was performed. 4 mm-diameter linear fistula opening 30 mm from the anal canal was detected. The patient was treated by transanal endoscopic suturing of fistula and protective loop ileostomy was done.

In the first stage of the endoscopic procedure, standard sigmodoscopy was performed to evaluate the size and position of the fistula. Then the rectal side of the fistula opening was treated with the argon beamer to destroy the canal of the fistula and mucosa of the rectum proximal to the fistula. Then, using the Apollo OverStitch SxTM Endoscopic Suturing System, three interrupted, full-thickness stitches were placed on the rectal wall resulting in the closure of the fistula. 8 weeks after endoscopic repair procedure cystography was performed proving integrity of the urinary system and the patient underwent restoration of the gastrointestinal tract.

Results During the 11 months observation period, there was no recurrence of the symptoms of fistula. Patient is continent and does not report any gastrointestinal symptoms.

Conclusions There are currently various surgical and endoscopic treatments available for urethro-rectal fistulas, but some may not be satisfactory for both patients and surgeons. In this presented case, an innovative endoscopic rectal suturing technique was used and yielded positive results. However, further studies are necessary to determine its overall effectiveness.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP068 Benign esophageal strictures in adults : Safety and efficacy of endoscopic dilation

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Aims Benign strictures are the main cause of esophageal strictures in adults. They can be managed by different modalities, but endoscopic dilatation is the standard therapy.

This study aimed to determine the efficacy and safety of endoscopic dilatation in the management of esophageal strictures in adults.

Methods In this retrospective study , records of patients with esophageal strictures presented to the Gastroenterology department, Fattouma Bourguiba Hospital , Monastir , Tunisia, in the period between 2010 and 2021 were reviewed. The patients' clinical characteristics, endoscopic findings, treatment and outcomes were noted.

Results Thirty patients with esophageal strictures were identified.Twenty patients (66 %) were female. The average age was 46 years old [18 years – 85 years].The cause of esophageal strictures were caustic ingestion in 16 patients , gastroesophageal reflux disease in 12 patients and radiation-induced in 2 patients .Sixty-for dilatation sessions were performed. The median number of dilatation sessions per patient was two.Savary-Gilliard bougienages were the main dilators used (65.8 %).An inadequate response was noted in two patients (6 %). No perforation or mortality was reported.Surgical intervention was required in one patient with caustic stricture.

Conclusions Our study shows that endoscopic esophageal dilatation is an effective and safe option for the management of benign esophageal strictures in adults.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP069 Role of yoga practice as add-on therapy on severity of bowel movements and anxiety level in irritable bowel syndrome patients

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Aims Irritable bowel syndrome (IBS) is a chronic disease that is mostly related with stress and anxiety. Patients with this illness primarily experience irregular bowel movements with abdominal pain. It interferes with individual physical health as well as mental health. Although most of cases lack of diagnosis, people suffer from bowel discomfort that have a strong impact on daily life. This study's major goal was to find out how regular yoga practice helped IBS patients control their stress levels and abdominal pain.

Methods Total 40 newly diagnosed patients from 18-45 years of both male and female genders were included in this study from the Gastroenterology OPD, Dept. of KGMU. IBS patients were classified by using the Rome IV criteria and randomly assigned to one of two groups: conventional treatment with regular yoga practices (group A) and conventional treatment without yoga (group B). Yoga sessions were conducted for the group A, for three months and group B continued to take their prescribed medication only. IBS-Severity Scoring System is a self-reported questionnaire to assess severity of bowel movements and Depression, anxiety, stress scale (DASS-21) was used to assess the severity of psychological stress also we measured serum cortisol level in fasting state of IBS patient.

Results The average serum cortisol level was (10.62 ± 4.28). The result indicates that depression scores of 12 % IBS patient indicating severe depression also 38 % patients indicating severe IBS. The results shows that in yoga group there was significant improvements in bowel movements and depression scores when compared to group B .Additionally, the yoga group had a notable improvement in quality of life and also saw reductions in medication dependence.

Conclusions As per our findings, 3 month yoga practice is a useful and non-invasive treatment for IBS severity. Our research also points to the necessity of more yogic sessions that directly help all patients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP070 Establishment of Standards for the Referral of Large Non-Pedunculated Colorectal Polyps: An International Expert Consensus Using a Modified Delphi Process

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Aims Resection of colorectal polyps has been shown to decrease the incidence and mortality of colorectal cancer. Large non-pedunculated colorectal polyps are often referred to expert centres for endoscopic resection, which requires relevant information to be conveyed to the therapeutic endoscopist to allow for triage and planning of resection technique.

Methods A Delphi methodology was employed to establish consensus on minimum expected standards for the referral of large colorectal polyps among a panel of international endoscopy experts. The expert panel was recruited through purposive sampling, and three rounds of surveys were conducted to achieve consensus, with quantitative and qualitative data analysed for each round.

Results A total of 24 international experts from diverse continents participated in the Delphi study, resulting in consensus on 19 statements related to the referral of large colorectal polyps. The identified factors, including patient demographics, relevant medications, lesion factors, photodocumentation and the presence of a tattoo, were deemed important for conveying the necessary information to therapeutic endoscopists. The mean scores for the statements ranged from 7.04 to 9.29 out of 10, with high percentages of experts considering most statements as a very high priority. Subgroup analysis by continent revealed some variations in consensus rates among experts from different regions.

Conclusions The identified consensus statements can aid in improving the triage and planning of resection techniques for large colorectal polyps, ultimately contributing to the reduction of colorectal cancer incidence and mortality.

Conflicts of interest AmS – Consultant: Boston Scientific, Interscope, Medtronic, Olympus; Research Support: Boston Scientific, Fujifilm; Advisory board: Endosound. KM – Consultant: Ovesco USA and Ovesco Germany. TP – Speaker: Olympus and Boston Scientific. MJB – Research support for ethics approved studies from Cook Medical, Olympus medical and Boston scientific. PS – Consultant: Boston Scientific, Ambu, Erbe. DKR – Consultant: Olympus, Boston Scientific, Sabela, Norgine, Acacia, GI Supply; Ownership interest in Satisfai Health. UDS – Research, Consultant and Speaker: Olympus and Boston Scientific; Consultant and Speaker: Conmed, Cook, Medtronic. MP – has served on clinical advisory boards for Fujifilm Europe and Olympus; has served on the clinical advisory board and owns share options in MiWendo; reports speaker fees from Casen Recordati, Norgine Iberia, Fujifilm, Mayoli, Medtronic and Olympus; and has received research funding from Fujifilm, Casen Recordati, Ziuz and 3-DMatrix. JDM – Speaker: Boston Scientific, Pendopharm, SCOPE rounds, Vantage, Medtronic. Medical Advisory Board: Pendopharm, Boston Scientific, Janssen, Pentax, Fuji. Grants and Research support: CAG. CWT – Speaker: Medtronic and Boston Scientific, Consultant: Boston Scientific. GRM – Consultant for Olympus. Speaker: Pentax, Fuji and Medtronic. SCG –Research grants and personal fees from AbbVie and Ferring Pharmaceuticals, personal fees from Takeda, Sanofi, and BioJAMP, education grants from Janssen, and has equity in Volo Healthcare. All the authors have no relevant financial disclosures or conflicts of interest to declare.

ePO71 The Endoscopic and Clinical Characteristics of Autoimmune Atrophic Gastritis

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Aims Autoimmune atrophic gastritis (AIG) is a rare chronic autoimmune disease characterised by gastric mucosa inflammation and atrophy. Limited clinical data exists on AIG, especially in the Canadian population. In addition, there are no North American series on the magnifying endoscopic features in AIG. This study presents a case series of 46 Canadian patients with AIG, reporting their clinical, laboratory, and endoscopic findings.

Methods A retrospective analysis was conducted on patients diagnosed with AIG at Kingston Health Sciences Centre, Canada, between January 2016 and June 2023. Data collected from medical records included age, sex, presenting symptoms, laboratory findings, endoscopic features, histopathology reports, and concomitant autoimmune diseases.

Results The study included 46 patients with autoimmune gastritis. Positive anti-parietal cell antibodies were found in the majority of patients (91.30 %), while positive anti-intrinsic factor antibodies were less prevalent (19.57 %). Deficiencies in vitamin B12 (52.17 %) and iron (78.26 %) were observed, along with a high prevalence of anemia (76.09 %) and concomitant autoimmune diseases (45.65 %). The dominant magnification pattern of atrophy in the body was oval/slit in 50.00 % (n = 23) of the patients, followed by tubular in 32.61 % (n = 15) and foveolar in 17.39 % (n = 8). The prevalence of neoplasia in our study was 47.83 % (n = 22).

Conclusions This case series provides insights into the clinical, laboratory and magnifying endoscopic features, of Canadian patients with AIG. This case series demonstrates the three main magnifying endoscopic appearances of AIG and highlights the significant prevalence of gastric neoplasia, even within the low-risk Canadian population. These findings underscore the importance of optical diagnosis in identifying AIG and, notably, present the key magnifying endoscopy findings in a North American setting for the first time.

Conflicts of interest Authors do not have any conflict of interest to disclose.

ePO72 Eus-tissue acquisition of subepithelial lesions in the new era of FNB needles: a monocentric study

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Aims Gastroenteric subepithelial lesions diagnosis is often a challenge. This study compared the efficacy in terms of sample adequacy that is crucial to perform immunohistochemical techniques for achieving a definitive diagnosis [1], diagnostic capacity, and safety of EUS-FNA and FNB.

Methods This is a retrospective, single-center observational study conducted on patients who underwent EUS-tissue acquisition for gastrointestinal subepithelial lesions from January 2017 to December 2022. The sample adequacy for immunohistochemical techniques and the diagnostic accuracy of EUS-FNA and FNB were evaluated as primary outcomes. Secondary outcomes were the diagnostic accuracy (FNA/FNB vs. surgery), concordance of Ki-67 values (FNA/FNB vs. surgery),incidence of adverse events associated with EUS-guided tissue sampling, characteristics of the enhancement pattern in CH-EUS.

Results A total of 67 patients (35 women and 32 men) with subepithelial lesions were examined. The median age was 72 years; the median lesion size was 30 mm. The first clinical presentation was 7 % abdominal bleeding, 15 % abdominal pain, and 78 % incidentally. In 27 % of cases, patients underwent OGDS as the initial diagnostic procedure, while in 73 % of cases, a CT scan was the first diagnostic investigation. Lesion locations included 8 lesions in the esophagus, 44 in the stomach, 13 in the duodenum and 2 lesions in the rectum. 21 lesions were sampled using FNA, while 46 were sampled using FNB. The adequacy of the sample for immunohistochemistry was significantly higher with FNB (87 %) compared to FNA (62 %) ($p < 0.05$). However, there was no significant difference in diagnostic capacity between FNA (90 %) and FNB (96 %). In the FNA group, 11 patients underwent surgery, and there was diagnostic concordance in 8 out of 11 cases (73 %). In the FNB group, 20 patients underwent surgery, and there was diagnostic concordance in 16 out of 20 cases (80 %).For the Ki-67 index, both FNA and FNB often underestimated the value compared to the surgical specimen. Only 3 % of patients experienced mild adverse events, self-limiting. Out of 14 cases underwent CH-EUS, those with a hypervascular pattern (11/14) were subsequently confirmed to be GISTs on histology.

Conclusions EUS-FNB seems to have an advantage in collecting samples adequate for immunohistochemistry compared to EUS-FNA, but both methods have a high diagnostic capacity in submucosal lesions. EUS tissue acquisition proves to be a safe procedure with a very low rate of mild adverse events. Further studies with larger sample sizes are needed to confirm and expand upon these results.

Conflicts of interest Claudio Giovanni De Angelis is a consultant for Boston Scientific

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eP073 Is variceal banding always the solution? Surgical salvation management in massive rectal variceal bleeding

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Abstract Text Patients with liver cirrhosis and portal vein thrombosis have a risk of developing rectal varices. Although the related incidence is not high, bleeding from rectal varices may become life-threatening. Few reports are available in the literature for the management of rectal variceal bleeding. We report a case of a 73 years old patient, with portal vein thrombosis, atrial fibrilation, cardiac failure treated by Apixaban. He presented massive hematochezia and severe anemia syndrome. Colonoscopy showed rectal varices with a white nipple sign. We decided to apply 7 ligature rings. On day 7, the patient presented rectal bleeding. Rectoscopy showed 6 of the 7 rings in place and a Forrest IIB ulcer after the fall of one of the elastic rings. On day 10, the patient had massive rectal bleeding, and the endoscopic approach is impossible. Surgical intervention was performed with favorable subsequent evolution. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP074 Prevalence and risk factors of post EVL-induced ulcer in cirrhotic patients undergone endoscopic variceal band ligation

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DOI 10.1055/s-0044-1783363

Aims Assessment of the prevalence and risk factors of post EVL-induced ulcer in cirrhotic patients undergone endoscopic variceal band ligation.

Methods Cross-sectional study included 200 cirrhotic patients for whom endoscopic variceal band ligation is indicated either for prophylaxis or for treatment of acute variceal bleeding at Kasr-Al aini university hospital, Internal Medicine department, Al Ebrashi endoscopy unit throughout period from April 2018 to April 2019.

The patients were classified into 2 groups:

Group 1: included 100 patients undergoing prophylactic endoscopic variceal band ligation.

Group 2: included 100 patients undergoing endoscopic band ligation for treatment for active variceal bleeding.

We needed to assess the prevalence and risk factors of post EVL-induced ulcer in cirrhotic patients undergone endoscopic variceal band ligation through follow up endoscopy that was done 14-21 days post banding

Results 61 patients out of 200 patients developed EVL-induced ulcer with prevalence of EVL-induced ulcer was 30.5 % of all patients. The prevalence of EVL-induced ulcer was more in group 2 than group 1 (40 % vs. 21 %, $P = 0.004$). The prevalence of EVL-induced ulcer increased with advanced child class, larger OV, presence of gastric varices, presence of HCC, low serum albumin, low prothrombin concentration, low hemoglobin, high MELD and child scores. [1–2]

We evaluated the potential risk factors for EVL-induced bleeding ulcer. In EVL-induced ulcer group of patients (n = 61), EVL-induced bleeding ulcer was observed in 11 (5.5 %) patients. In a univariate analysis, Child class C ($P = 0.038$), Child score = 11 ± 1($P = 0.007$), PC(%) = 37.3 ± 9.3($P = 0.014$) and the presence of HCC ($P = 0.002$) were associated with EVL-induced bleeding ulcer .

Conclusions The prevalence of EVL-induced ulcer was 30.5 %and was higher in patients underwent urgent EVL for active variceal bleeding. Advanced child class, high child score, high MELD score ,advanced OV grading , presence of GV, low serum albumin, low prothrombin concentration, low hemoglobin and presence of HCC can be considered statistically significant risk factors for EVL-induced ulcer. The prevalence of EVL-induced bleeding ulcer was 5.5 % and the presence of HCC can be considered a significant predictor factor for EVL-induced bleeding ulcer.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP075V EUS-Guided Gastrojejunostomy for Duodenal Obstruction in Patients with Ascites: Don't Let Your LAMS Drown

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Abstract Text EUS gastrojejunostomy (EUS GJ) is effective & safe with very high clinical & technical success. EUS GJ in presence of ascites is associated with high adverse events.

Even after paracentesis, inter-bowel fluid remains and can pose difficulty for EUS GJ.

A 65-year-male, post biliary and duodenal SEMS placement for periampullary malignancy 4 months ago, presented with gastric outlet obstruction and ascites. For ascites paracentesis (2-3 litres fluid) was done, EUS guided GJ was planned.

During EUS residual ascites was seen, so EUS guided transgastric aspiration of ascites was performed and following that EUS GJ was performed. In this video, we demonstrated the utility of EUS guided trans-gastric aspiration of residual ascites to facilitate EUS GJ in patient with malrotation.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/bb4c95f1-4435-4cb4-a057-2c8018bf0618/Uploads/13821_gj_ascites.mov

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP076 Gastrointestinal bleeding and aortic stenosis: Heyde's syndrome

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DOI 10.1055/s-0044-1783365

Abstract Text An 80-year-old man presented to the Emergency Department of our Hospital with rectal bleeding and anemia. The patient had a history of atrial fibrillation being treated with DOAC and severe aortic stenosis. The patient underwent upper and lower endoscopy and small-bowel capsule endoscopy; small angiodysplasias were found in the cecum and in the ileum with no active bleeding. We suspected Heyde's syndrome and referred the patient to the Cardiac Surgery Department; transcatheter aortic valve implantation was performed and the patient has experienced no further episodes of gastrointestinal bleeding or anemia. [1–3]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP077 Surprising Complication of Intussusception After Colonoscopy: a Case Report and a Review of the Literature

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DOI 10.1055/s-0044-1783366

Abstract Text This report details a rare case of ileal-caecal intussusception following a colonoscopy necessitating immediate surgery. Despite its rarity, post-colonoscopy intussusception has been documented. We conducted a systematic review with PRISMA guidelines about this topic. 19 cases from 17 studies were identified, primarily males, with 42 % having a history of abdominal surgery. Symptoms typically manifested within a week post-procedure, leading to surgical intervention in 63 % of cases. The case report involves an 85-year-old man, with a history of previous abdominal surgery, who developed intussusception post-colonoscopy, necessitating surgical resection. Moreover the histology examination revealed a small bowel intramucosal adenocarcinoma. Discussion highlights multifactorial causes and emphasizes prompt identification, especially in patients with prior abdominal surgery, to reduce risks.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP078V Endoscopic retrieval of a forgotten 4-year-old trans-gastric LAMS

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DOI 10.1055/s-0044-1783367

Abstract Text A 61-year-old asymptomatic male was referred to our department for lumen-apposing metal stent (LAMS) removal. A medical records review confirmed an EUS-guided trans-gastric drainage of a pancreatic collection 4 years earlier, with placement of a 15x10mm LAMS (Hot Axios stent, Boston Scientific). The patient was lost to follow-up, thus failing to remove the stent at the appropriate timing. CT evaluation confirmed the LAMS was in place, embedded in the gastric wall. Endoscopy revealed the LAMS circumferentially surrounded by gastric wall, with both ends free in the gastric lumen. There was disintegration of the outer coating, tissue ingrowth, and severely mangled stent ends. Using foreign body forceps, we achieved partial mobilization of the distal end, which allowed for en bloc stent removal using a standard polypectomy snare. There were no post-procedure adverse events.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/45b18608-4365-4709-90a7-a3d002ed62be/Uploads/13821_endoscopic_retrieval%20forgotten%20LAMS.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP079 Saline-immersion therapeutic endoscopy aided endoscopic submucosal dissection after transanal endoscopic microsurgery: a case series

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DOI 10.1055/s-0044-1783368

Aims Transanal endoscopic microsurgery (TEM) is a more invasive alternative to endoscopic submucosal dissection (ESD) to approach large spreading tumour or early cancer in the rectum. Although effective, incomplete resections or recurrences after TEM can occur [1]. To date, only one study addressed the effectiveness of endoscopic submucosal dissection for TEM recurrences [2]. Saline-immersion therapeutic endoscopy (SITE) can be an effective method to deal with difficult scenarios thanks to improved visibility, effective delivery of diathermy and buoyancy [3]. Therefore, we are reporting our centre's experience on the efficacy and safety of SITE pocket creation method ESD (SITE-PCM-ESD) under these circumstances [4].

Methods We retrospectively reviewed procedures since 2020 from our centre's prospectively completed ESD database. Patients who underwent SITE-PCM-ESD after a failed or incomplete TEM or for a recurrence after TEM for a rectal lesion were considered eligible. Baseline characteristics, as well as histological and endoscopic parameters were recorded.

Results Four patients meet the eligibility criteria. Median age was 68.5 (IQR 60-76, range 54-80), 3 patients were female (75 %), 2 patients had SITE-PCM-ESD for post TEM recurrence (after 15 and 28 months respectively); the other 2 patients had a failed/incomplete TEM. Two lesions were LST-G-M (Paris 0-IIa-Is), whereas the other two were LST-G-H (Paris 0-IIa) and LST-NG-FE (Paris 0-IIb) respectively. Median maximum diameter was 55 mm (IQR 30-90, range 30-120), median minimum diameter was 50 (IQR 20-62, range 20-68). All lesions were successfully removed en-bloc (100 %) despite F2 fibrosis. Resection speed stood at 10.2 mm^2/min (IQR 3.9-17.2, range 3.9-19.5). Partial closure of the resection site was feasible in two cases and total in one case. Two cases of inconsequential superficial muscle injury were reported and successfully interprocedurally clipped. No other adverse events were noted. R0 resection was achieved in three cases (tubule-villous adenoma – low grade dysplasia). Histological analysis from the fourth case showed a 15 mm adenocarcinoma asso-

ciated with a neuroendocrine cancer (G3) in the context of a large LST-G-H lesion. The patient was therefore referred for surgery.

Conclusions PCM-SITE ESD can be proposed as a secondary treatment after failed or recurrent TEM.

Conflicts of interest AR: no disclosures.AM: AM: Personal payments/honoraria/fees: Olympus, GI supply, Boston Scientific, FujifilmRC: no disclosuresLL: no disclosuresH.Y. has consultant relationship with S.R.J. Y.K.; honoraria for lectures from Takeda Pharmaceutical Co., Ltd.; Fujifilm Co.; Fujifilm Medical Co.; Eisai Co., Ltd.; and Daiichi Sankyo Co., Ltd.EJD: educational grants in support of conference organization, and honoraria, from Fujifilm, Pentax, and Olympus, and honoraria from Ambu.

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eP080 Validation and comparison of the CHAMPS score and other scores for nonvariceal upper gastrointestinal bleeding patients : A retrospective study

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Aims Various scoring systems for predicting the outcomes such as in-hospital mortality, radiological or surgical intervention, and re-bleeding have been developed for NVUGIB (Nonvariceal upper gastrointestinal bleeding) patients. Recently, a new prediction score, the CHAMPS score, has been developed to evaluate in-hospital mortality for NVUGIB patients who underwent hemostasis therapy. Since the CHAMPS score has only been validated and applied for Japanese patients, we validated the CHAMPS score and compared with other scores to evaluate the usefulness of this new scoring system in Korean patients.

Methods We collected the medical records of 1,241 patients who visited the emergency department at the Chungnam National University Hospital for NVUGIB from January 2013 to December 2022. All the patients underwent endoscopically therapeutic intervention and their clinical, laboratory and endoscopic data were reviewed. The ABC score, GBS score, MAP score, Japanese score and CHAMPS score were calculated retrospectively and the evaluation of these scores for predicting in-hospital mortality, radiological/surgical intervention and re-bleeding has been done by using the AUROC (Area under the receiver operating characteristic curve).

Results Of 1,241 patients, 3.2 % died within 30 days, 4.0 % needed radiological/surgical intervention, and 13.0 % experienced re-bleeding. The CHAMPS score was effective for predicting in-hospital mortality (*c statistic*, 0.807, *p value* < 0.001). The most effective score for predicting radiological/surgical intervention and re-bleeding was the ABC score and the MAP score, each (*c statistic*, 0.895, *p value* < 0.001 ; *c statistic*, 0.673, *p value* < 0.001). Age, Comorbidity (Heart failure, ESRD, COPD), initial blood pressure, Hemoglobin, serum albumin level, the ASA (American Society of Anesthesiologists) score and ECOG-PS (Eastern Cooperative Oncology Group performance status) were proven to be the effective predicting factors for in-hospital mortality.

Conclusions The CHAMPS score was useful for predicting in-hospital mortality in NVUGIB patients who underwent endoscopically therapeutic intervention in Korea.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP081 Success and safety of endoscopic treatments in synchronous biliary and duodenal malignant stenosis

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Aims Endoscopic stenting using self-expandable metal stents (SEMS) is a commonly used and minimally invasive palliative treatment in cases of duodenal and biliary obstruction.This study aims to evaluate the efficacy of SEMS in restoring biliary and gastrointestinal flow in patients presenting with malignant obstruction.

Methods Patients who underwent double stenting (DS) from January 2013 to June 2023 were analyzed retrospectively about their demographic characteristics, the site and nature of the strictures, success rates, complications and survival time

Results A total of 62 patients were enrolled. In 43 patients, biliary obstruction occurred before the onset of duodenal obstruction (in average 110 days) (group 1). In 15 patients biliary obstruction occurred concurrently with duodenal obstruction (group 2). In 4 patients duodenal obstruction preceded the biliary obstruction (in average 130 days) (group 3). The duodenal strictures were proximal to the papilla in 31 patients, adjacent to the papilla in 23 patients and distal to the papilla in 8 patients. The majority of biliary strictures were in the distal third of the bile duct (54/62 patients).Duodenal SEMS were successfully deployed in all patients.Combined endoscopic stenting was successful in 99 % of patients in group 1, 83 %of patients in group 2 and in 100 % of patients in group 3. Early complications occurred in 5 % of patients, while 15 % had late complications. The overall average survival after combined stenting was 115 days (range 7 – 425 days).

Conclusions 1) Biliary stenting through the mesh of the duodenal SEMS is technically feasible and has a high success rate.2) Double stenting is safe and effective for malignant bilioduodenal obstruction and the majority of patients needed no additional intervention during their palliation period.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP082 Successful new therapeutic strategies for giant pedunculated colorectal polyps with thick stalks: a case series study

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DOI 10.1055/s-0044-1783371

Aims Endoscopic resection of giant pedunculated colorectal polyps (PCPs) with large heads with thick stalks can be technically difficult with conventional snare polypectomy. It involves the risk of clinically severe bleeding. The European Society of Gastrointestinal Endoscopy guidelines recommend pretreatment of the stalk with a dilute epinephrine injection or mechanical hemostasis (prophylactic clip and endoloop application) for PCPs. However, some cases with large tumor heads and thick stalks are associated with challenging operability and poor visibility; therefore, pretreatment can be difficult and not effective. Therefore, we developed a new method for managing intraoperative bleeding during colorectal endoscopic submucosal dissection (ESD) of PCPs with thick stalks.

Methods The strategy is ''ESD with traction clip fixation and vessel clamping method''. At first, we created an incision from the anal side of the tumor using a needle-type knife. After exposing the anal side, a novel clip-band device (SureClip traction band; MICRO-TECH) was attached to the stalk, and the other end of the elastic ring was hooked by the SureClip and clipped to the anal side of the intestinal tract. The artery inside the stalk should be carefully dissected to avoid damage. Finally, we applied two clips to clamp the central tissue containing the thick vessels and cutting between the two clips was performed to completely stop bleeding.

We retrospectively analyzed eight consecutive colorectal cancers from April to October 2023 in our Endoscopy unit. Of these, the clinicopathological characteristics and treatment outcomes were analyzed.

Results We had eight cases performed ESD using this method. Among the 8 patients enrolled, 6 were males (75 %), mean age 68 ± 7 years. The overall R0 resection rate, median tumor head size and procedure time were 100 %, 41 mm (range, 30 – 60 mm) and 32 minutes (range, 20 – 55minutes). No major intra-/peri-procedural or delayed complications occurred. [1–3]

Conclusions This case series indicate that planned this treatment strategies are essential to the prevention of intraoperative complications associated with giant PCPs with thick stalks. Here, we present successful cases of ESD using this novel method with movie.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP083 The Effectiveness of Using an Interactive Video in Consenting Process versus the Standard Process in Increasing the Awareness of Patients Undergoing Endoscopy Procedures: A Real-Life Cross-Sectional Survey Study

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Aims the objective of this study was to compare the effectiveness of including a video recording to the standard informed consent in increasing the patients' comprehension and satisfaction

Methods In this cross-sectional study, a total of 150 patients who were planned to receive an endoscopy procedure at the endoscopy unit at King Abdulaziz Hospital were randomized to either receive a video recording prior to consenting or a standard paper consent. A questionnaire was then completed by all patients to test their comprehension and satisfaction.

Results Out of the 142 eligible patients, 71 (50 %) patients received the standard consent, and 71 (50 %) patients received the video recording prior to consenting. There was a significant decrease in the number of patients who required process and complications re-explanation with a p-value of 0.014. There was a significant increase in patients' awareness about the process complication, and post-operation report with a p-value of 0.001 and 0.001, respectively.

Conclusions Including an illustrative video that mirrors the information in the paper informed consent increased patients' understanding and awareness of the process, and what to expect during and after their endoscopy procedure. Video consenting is representing a potential and effective replacement for the standard process.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP084V Horseshoe shaped esophageal leiomyoma

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DOI 10.1055/s-0044-1783373

Abstract Text We reported the case of a 30-year-old man, with operated testicular seminoma. An abdominal CT scan, performed before chemotherapy, showed a round shaped, paraoesophageal tumor with a hydroaeric level. The patient had mild grade dysphagia for solid. After chemotherapy, restaging showed regression of retroperitoneal adenopathy but stability of paraoesophageal lesion. Oesogastroduodenal endoscopy was normal. Endoscopic ultrasonography revealed a 45 mm well-limited esophageal lesion, developed from the 4th layer. The lesion was homogeneous and hypoechoic, without calcification. Small vessels were present within the lesion. This appearance suggests a mesenchymal tumor [1]. A 22 Ga needle biopsy was performedand refered to the diagnosis of leiomyoma. Surgical enucleation of the leiomyoma was realised and histology confirm the diagnosis.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/c0427c99-71cd-4937-ae1c-890972b8235a/Uploads/13821_Leiomyoma_v2.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP085 Endoscopic approach for biliopancreatic disease after pancreaticoduodenectomy: a 10-year single center experience

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DOI 10.1055/s-0044-1783374

Aims In surgically altered anatomy (SAA), endoscopic retrograde cholangiopancreatography (ERCP) can be challenging. Limits from the most recent and up-to-date reviews in this field were the comparison of heterogeneous studies in terms of sample and endoscopic technique. Consequently, it remains debatable the choice of the optimal endoscopic approach within this context.

We aim to show our experience and evaluate technical and clinical success of ERCP performed in the setting of pancreaticoduodenectomy (PD).

Methods This study was conducted on a retrospective cohort of patients presenting biliopancreatic complications after PD from 01/01/2012 to 31/12/2022. All patients underwent ERCP at our Digestive and Interventional Endoscopy Unit. Clinical and instrumental data were collected, included anatomical reconstruction, characteristics of biliopancreatic disease and characteristics of endoscopic treatment. Data from follow-up were reported in terms of recurrence of the index disease.

Results 133 patients were included in the study (80 M, mean age 65 years) with 296 total endoscopic procedures (median = 2 procedures/treatment). The indications for ERCP were biliary in 76 cases (57.1 %) and pancreatic in 38 cases (28.5 %), while in 6 cases (4.5 %) were biliopancreatic combined leak, and 13 (9.7 %) were neoplastic recurrence.

Deep cannulation was registered in 113 out of 133 cases (85 %). In 20 out of 133 patients (15 %), retrograde cannulation was not achieved. Among these, 8 patients underwent EUS-guided treatment, achieving technical success. Thus, technical success was obtained in 121 patients of 133 (90.9 %). 112 out of 121 (92.5 %) obtained clinical success: 104 with retrograde approach (92 % of whom

achieved cannulation) and 8 without it. Nine patients of 112 (8 %) experienced adverse event, which were all solved (1 respiratory failure, 2 perforations, 2 cutaneous fistulas due to decubitus of the stents and 4 major bleedings).
Clinical success rates were statistically different between patients with biliary, pancreatic and neoplastic recurrence (93.4 % vs 73.6 % vs 53.8 %, p<0.0001) [1].
Septic patients were 38 (22 M, mean age 68 years, range 50-87) and showed a worse prognosis than non-septic once (clinical success: 25/38, 65.7 % vs 87/95, 91.5 %, p = 0.0001) and a more frequent procedural-related adverse event (8/38, 21 %, 6 of them determining clinical failure vs 10/95, 10.5 %, p = 0.05).
During follow-up of patients who obtained clinical success, 9 patients (8 %), patients experienced recurrence of the index biliopancreatic disease with a mean onset of 15 months (IQR 6-38 months).

Conclusions Our case series demonstrated that the use of a pediatric colonoscope in ERCP procedures for patients who have undergone PD is both safe and effective in treating the condition, even in a long-term follow-up.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP086 Endoscopic submucosal dissection using gel solution versus glycerol for submucosal injection: a randomized controlled multi-centric trial

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Aims Submucosal injection is a crucial step when performing endoscopic submucosal dissection (ESD). Glycerol is the most used solution that has been implemented, however novel formulations are emerging. This study aimed to comparatively evaluate the submucosal injection using a gel solution versus glycerol during ESD procedures in patients with superficial gastric and rectal (pre)malignant lesions.

Methods We conducted a prospective multicenter randomized controlled trial in patients with documented gastric or rectal lesions indicated for ESD. Primary endpoint was dissection speed, defined as the dissected surface (mm2)/ESD duration (min). The enrollment goal was 266 patients randomized in 1:1 ratio assuming the gel solution would increase the dissection speed by 5.13 mm^2/min or ~23 % compared to glycerol, based in historic data at the coordinating center. Other endpoints included rate of en bloc resection, complete endoscopic resection, total hemostatic time, need for hemostatic forceps during procedure and serious adverse events, evaluated by AGREE classification. ClinicalTrial NCT04977401.

Results We randomized 31 patients (mean age 67, 58 % male), 16 to gel group and 15 to glycerol group at 2 centers. The trial was discontinued early because the gel solution was withdrawn from market by the manufacturer. Nine lesions in the stomach and 22 in the rectum were resected. The mean dissection speed in the gel group was 34.4 ± 14.6 vs 25.7 ± 14.0 mm^2/min in the glycerol group, which is 25 % faster, but the a priori test did not reach statistical significance due to small sample size (p = 0.100). Dissection speed was higher in gastric lesions for gel solution than for glycerol (33.1 ± 11.7 vs 17.9 ± 8.4 mm^2/min, p = 0.065). En bloc resection was similar between the groups with each group having one lesion not dissected en bloc. Complete endoscopic resection was achieved in all lesions that had en bloc resection. The mean number of intraprocedural bleeds per procedure was similar, but we observed less need of hemostatic forceps for bleeding control in the gel group (56 % vs 87 %, p = 0.113). Total hemostatic time was 18.6 ± 31.3 and 23.0 ± 30.1 minutes for gel and glycerol respectively. There were 4 major adverse events (grade IIIa), 3 serious bleeds in the gel group and 1 perforation in the glycerol group (p = 0.600). Two bleeds occurred after procedure, day 7 and 10, requiring blood transfusion and all 3 episodes were treated endoscopically. The perforation was treated endoscopically with 3 clips.

Conclusions Although this trial was stopped early, this small, randomized trial showed a potential increase of ESD dissection speed with gel solutions over glycerol, with similar resection success and a trend towards a lower need for hemostatic forceps. Further research into different types of lifting agents is warranted.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP087 A rare case of exfoliative esophagitis induced by apixaban

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Abstract Text Novel direct oral anticoagulants (DOACs) have revolutionized the management of the aging population offering a better control of the thrombotic events frequently related to the presence of atrial fibrillation. However, all oral anticoagulants carry a risk of gastrointestinal (GI) bleeding. For example, cases of Dabigatran induced exfoliatiave esofagitis and esophageal ulcers are increasingly being reported. We report a case of a female patient who developed upper GI bleeding due to exfoliative esophagitis shortly after taking Apixaban 5 mg daily. The endoscopic evaluation identified the presence of significant esophageal damage and the patient was managed conservative by switching to low molecular heparin and oral proton pump inhibitor. The follow up endoscopy at 2 months showed normal esophageal mucosa. Patients and physicians should be advised about the risk of developing exfoliative esophagitis. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP088 Current evidence and future directions on improving the endoscopic recognition of early colorectal carcinoma using artificial intelligence – a scoping review

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Aims Artificial intelligence (AI) has great potential to improve the endoscopic recognition of early stage colorectal carcinoma (CRC). As a result, AI may facilitate a higher rate of endoscopic resection of superficially invasive CRC. This scoping review aims to summarize current evidence regarding the use of AI for improving endoscopic recognition of early stage CRC, to identify knowledge gaps on this topic, and to provide an overview of the methodologies currently used.

Methods A systematic search was performed following the PRISMA-ScR guidelines. PubMed (including Medline), Scopus, Embase, IEEE Xplore, and ACM Digital Library were searched for relevant publications up to April 2023. Studies were suitable for inclusion when they were using AI for distinguishing (early stage) CRC from colorectal polyps on endoscopy or endocytoscopy imaging, using histopathology as gold standard. Sensitivity, specificity, or accuracy should be reported as outcome measures, and articles must be available in English. Study selection was performed by two reviewers independently.

Results Out of 4185 screened articles, 24 articles were included in this review. With the exception of three studies, all included studies were published in the past 5 years. None of the studies included reported CADx system testing in real-time. Convolutional neural network architectures were used in all studies except one, which employed a support vector machine and three studies that did not specify algorithm details. All studies that mentioned the endoscopy brand used Olympus endoscopy systems (n = 21), six of which also used Fujifilm/Fujinon. CADx system classification categories ranged from two categories, such as lesions suitable or unsuitable for endoscopic resection, to five categories, such as hyperplastic polyp, sessile serrated lesion, adenoma, cancer, and other. CRC was classified varyingly within the classification categories, including diagnosis of CRC together with adenomas (n = 11), diagnosis of CRC in a separate classification category (n = 9), or estimation of CRC invasion depth (n = 4). The number of images used in testing databases for the CADx systems varied from 69 to 48.391, the latter using dozens of images made of one lesion. The diagnostic performances have substantial variability, with sensitivities ranging from 55.0-98.1 %, specificities from 67.5-100 %, and accuracies from 74.7-94.9 %.

Conclusions This scoping review highlights that the use of AI to improve endoscopic recognition of early stage CRC is an upcoming field of research. Diagnostic performances are promising, but large heterogeneity in the methodologies used, should be taken into account when interpreting the results. There is a knowledge gap regarding the real-time performance of CADx systems during multicenter external validation with sufficient amounts of original test data. To enhance the utility of CADx systems in clinical practice, future research should focus on the development of CADx systems that can differentiate CRC from premalignant lesions, while also providing an indication of submucosal invasion depth.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP089 Factors associated with early variceal eradication after endoscopic ligation

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Aims Esophageal varices are present in up to 40 % and 85 % of patients with compensated and decompensated cirrhosis, **respectively**. Endoscopic treatment of esophageal varices is used for the prevention of first variceal bleeding, treatment of active variceal bleeding, and prevention of rebleeding. Endoscopic variceal ligation (EVL) is the most common treatment. Multiple EVL sessions are often required to eradicate them. We aimed to detect factors predicting lower number of endoscopic treatments.

Methods The study recruited all cirrhotic patients admitted to the hospital within the last two years, who have been treated for esophageal varices by EVL and achieved eradication through this endoscopic treatment. For each patient, main demographical and clinical characteristics were collected, including, etiology of cirrhosis, severity of liver disease according to Child-Pugh and MELD score and main laboratory tests. Varices were described according to the Japanese classification, and for each EVL session number of placed bands was recorded. Binomial logistic regression was used for univariate and multivariate analysis and odds ratios (OR) were calculated.

Results A total of 31 patients (71 % males, mean age 62.7 ± 9.2) with liver cirrhosis and esophageal variceal (F2 41.9 % and F3 58.1 %) were included. The most frequent etiologies were alcoholic cirrhosis, non-alcoholic steatohepatitis and cryptogenic cirrhosis, in 8 (25.8 %), 9 (29 %) and 4 (12.9 %), respectively. Esophageal Varices with Red Color Sign on Endoscopy, Cherry Red Spot (CRS), Red Wale Markings (RWM) and Hematocystic Spots (HCS), were detected in 19 (61.3 %) 23 (74.2 %) 5 (16.1 %) patients. Only 8 patients (25.8 %) had gastroesophageal varices (GOV) while 30 subjects (96,8 %) had congestive gastropathy. Concerning severity of cirrhosis, there were 13 (41,9 %), 17 (54,8 %), 1(3,2 %) patients in Child Pugh's class A, B and C, respectively. In 14 subjects, a single session was sufficient to eradicate varices, while 9 patients required ≥ 3 sessions. At multivariate analysis, higher platelet count (OR = 0.98, p = 0.15), higher number of rubber bands (OR = 0.67 p = 0.16) and female sex (OR = 0.24, p = 0,11) predicted the fewer number of endoscopic sessions required for eradication of varices, while at multivariate analysis, only higher platelet count demonstrated a non significative trend (OR = 0.98, p = 0,07).

Conclusions When performing endoscopic ligation of esophageal varices, the number of platelets could influence the number of endoscopic sessions to eradicate esophageal varices.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP090 Survey-based Analysis of Colonoscopy Quality Among Ukrainian Endoscopists

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Aims Screening colonoscopy is an effective strategy to prevent and provide early diagnosis for colorectal cancer (CRC)**.** In order to optimize the quality of colonoscopy, performance measures (PM) have been identified and published by major international gastrointestinal societies. This study aimed to evaluate adherence to colonoscopy PMs among Ukrainian endoscopists and investigate factors related to suboptimal polyp management.

Methods A survey was created utilizing quality PMs proposed by international guidelines (including ESGE) and disseminated via email to members of EndoAcademy, one of the largest societies for endoscopists in Ukraine. Suboptimal polyp management was defined as performing a biopsy or photo documentation of a premalignant polyp rather than complete removal. Descriptive analysis was performed followed by multivariate logistic regression analysis to identify factors associated with suboptimal polyp management.

Results The survey was emailed to 540 endoscopists. There were 122 respondents (22.6 %), including 31 women (25.4 %). Most endoscopists work in public hospitals (59.8 %), are contracted with National Health Services of Ukraine (NHSU) (68.6 %), and perform 300-1000 colonoscopies per year (36.9 %). Recording cecal intubation rate was reported by 61.5 % of endoscopists and measuring adenoma detection rate by 59.8 %. Fewer endoscopists record withdrawal time (38.5 %), adequate bowel preparation rate (38.5 %), measure polyp detection rate (30.3 %), tattooing resection sites (15.6 %), and complication rates (13.9 %). 20.5 % of endoscopists reported not recording any PMs.

In terms of polypectomy techniques utilized, cold snare polypectomy was reported by 86.9 % of endoscopists, cold forceps polypectomy by 67.2 %, hot

snare polypectomy by 76.2 %, endoscopic mucosal resection by 54.0 %, endoscopic submucosal dissection by 19.7 %. Suboptimal polyp management was reported by 31.1 % of endoscopists. This group was less likely to record PMs ($p < 0.05$). Sex, age, experience, and number of colonoscopies per year were not associated with suboptimal management. Optimal polyp management was reported by 68.9 % of endoscopists. It was associated with using ESGE guidelines as a main additional educational resource ($p < 0.001$).

Conclusions The results of this survey distributed to the largest group of endoscopists in Ukraine indicate the importance of recording and monitoring quality PMs for colonoscopy in daily practice. A significant proportion of Ukrainian endoscopists do not record key PMs.

Wide adoption and auditing of quality PMs in Ukraine will be an important step towards implementing a national colorectal cancer screening program.

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eP091 How we spray. TC-325 survival guide: Tips and tricks

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Aims We aim to present a thorough guide on application of TC-325 hemostatic powder in clinical practice.

Methods We aspire to showcase an assortment of tips and tricks, (modified) techniques and pitfalls to avoid when using TC-325 based on existing literature and our own experience.

Results Phase 1: Endoscopy. Following identification of the bleeding lesion select the appropriate hemostatic method. Malignancy: If no active bleeding at time of endoscopy we water jet the tumor to induce bleeding. If no bleeding occurs, we do not spray. Appropriate selection of catheter: 7fr pros: More controlled delivery – less likely to induce ''snowstorm'' effect.10fr pros: High-volume performance at the cost of control / snowstorm. **Phase 2: Suction.** Finish up suctioning of content (blood, water etc). Keep lumen semi-deflated to compensate for CO2 insufflation during phase (P)4. Disconnect wall / pump suction to avoid inadvertent suctioning during P3 that could occlude catheter. **Phase 3: Preparation.** Drying of working channel. Use 2 – 3 x 60cc syringe air for gastroscope and 5 – 6 x 60cc for colonoscopes. AVOID KINKING THE CATHETER AT ALL COSTS (**extra care** with the **7fr** catheter).Uncork or remove completely the instrument channel cap !!Gentle moves – progress catheter very slowly. Apply positive air pressure to the working channel during insertion by blowing gently air from a syringe attached to the catheter. This will ensure that any residual moisture in the working channel will not enter the catheter (other authors connect it to the CO2 pump).Care not to dip the catheter into liquid upon exiting the distal tip. Exit at a safe distance (pre-position accordingly). **Phase 4: Spraying** Use a maximum of 2-3 devices, less if risk of perforation. If used correctly, the content of a single device should be enough for most clinical scenarios. Take into consideration the working space and adjust spray time / burst control accordingly. Short bursts of < 1sec might be ideal in confined spaces (eg linitis plastica). **Extra care: Spraying near esophagogastric junction / anal canal especially in retroflexion** carries the risk of endoscope impaction!! Minimize retroflexion, we use constant maneuvering of endoscope when spraying near these landmarks. **Troubleshooting:** Clogged catheter? 1) Use spare (**Save previously unused catheters!!)** 2) Unclog catheter with air 10cc syringe 3) Cutting-off the distal end of catheter has been described but is not encouraged cause of injury risk.4) In -house makeshift catheters have been proposed.

Conclusions By applying simple tips when using the hemostatic powder, we can improve the effectiveness of this technique and avoid (costly) mistakes [1–4].

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP092 Endoscopic approach of pyloric dysfunction after esophagectomy – a tertiary oncologic centre's cohort

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Aims Pyloric dysfunctions are frequent adverse effects of esophagectomies with significant impact on quality of life. For patients refractory to medical therapy, the endoscopic approach (pneumatic dilation; botulinum toxin injection; G-POEM; biodegradable stents) is the subsequent option.

Primary goal: to assess the efficacy of different endoscopic therapies (defined as symptomatic and Gastric Outlet Obstruction Scoring System (GOOSS) improvement at the end of one month).

Secondary goal: to evaluate adverse effects, technical success and durability of the therapies.

Methods We conducted a single-center retrospective study including all patients who underwent endoscopic therapy for pyloric dysfunction after esophagectomy between 2016 and 2022.

Demographic factors, type of surgery performed, type of endoscopic therapy, and adverse events were analyzed.

Results I n this period, 259 esophagectomies were performed and 5 patients with pyloric dysfunction refractory to medical therapy were found: age 45-66 (median 55); males: 4/5; Diabetes Mellitus: 1/5; Esophagectomy: McKeown 4/5; Ivor Lewis 1/5. Anastomotic leak 1/5. Pyloric dysfunction: 1/5 early (< 15 days postoperatively): late 4/5.

Manifestations: gastric tube dilation by radiography 3/5; drainage by nasogastric tube > 1000mL/24h: 5/5; delayed contrast-enhanced study 2/5; early satiety 4/5; nausea and vomiting 5/5; regurgitation 2/5; nutritional deficit 2/5

Endoscopy: food stasis 4/5; pyloric rebound 3/5. GOOSS 0 3/5.

Approach: Pneumatic dilation: 1/5; efficacy 0/1; G-POEM: 1/5; technical success 0/1. Endoscopic botulinum toxin injection 5/5; efficacy 4/5; durability > 6months 2/4; number of sessions: 1-5 (mean 2.4); Biodegradable stents 3/5; efficacy 3/3; durability > 6months 3/3 (mean 7 months); number of sessions: 1-6 (mean 3.3);

Status at last follow up: death due to oncologic disease progression: 2/5; GOSS ≥ 2: 3/3

Conclusions The sample size limits our conclusions, but the endoscopic approach to pyloric dysfunction post esophagectomy with botulinum toxin and biodegradable stents appears to be effective and safe, although of limited durability [1].

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP093 Endoscopic Submucosal Resection of Gastric Neoplasm: A Single Center Experience

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Aims Gastric adenocarcinoma after endoscopic submucosal resection (ESD) is a major clinical concern. This study aims to show the characteristics of ESD lesions and determine the rate of occurrence of gastric neoplasm

Methods We performed a retrospective analysis of medical records for patients who received ESD between January 2015 and June 2023 at Seoul Paik Hospital, Seoul, South Korea.

Results Of 356 ESD procedures, the average age was 68.7 ± 10.0 years, with a male predominance (270, 75.8 %). The predominant comorbidities included hypertension (176, 49.4 %), diabetes mellitus (78, 21.9 %), and dyslipidemia (46, 12.9 %). Neoplasms were chiefly located in the antrum (203, 57.0 %) and body (110, 30.9 %). The distribution of pathological findings was as follows: adenocarcinoma with well differentiated (42, 11.8 %), moderately differentiated (90, 25.3 %), and poorly differentiated with (14, 3.9 %) and without signet ring feature (17, 4.8 %). Low-grade dysplasia was mainly tubular (76, 21.3 %), whereas high-grade dysplasia manifested tubularly in 20.5 % (73) of the cases. Of the 163 adenocarcinoma specimens, the depth of tumors was most frequently pT1a (131, 80.4 %) followed by pT1b (18, 11.4 %). The R0 resection rate was 74.2 % (121). A minority, 6.7 % (11), required additional surgery due to contraindications. In the adenocarcinoma subset, no complications were reported complications such as casual perforation or late bleeding. However, recurrence of stomach cancer was observed, both synchronously (4.9 %) and metachronously (6.1 %).

Conclusions This comprehensive ESD dataset from a small volume center provides vital insights into patient demographics, tumor pathology, and post-procedure outcomes. The distinction in tumor characteristics and outcomes between adenocarcinoma cases underscores the need for vigilant post-ESD monitoring and care.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP094 Polypoid ganglioneuroma in the colon, a rare endoscopic entity

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Abstract Text Ganglioneuromas are rare, benign tumors of the sympathetic nervous system composed of cells from the neural crest. Except for the polypoid subtype, they may be associated with genetic syndromes. We present a case of polypoid colon ganglioneuroma, detected during a colonoscopy to study anemia in a 68-year-old patient with no relevant history. During the examination, 4 adenomatous polyps and a 5 mm sessile polyp that appeared to be adenomatous were removed. However, histological analysis of this lesion revealed poorly delimited proliferation of ganglion and Schwann cells. Immunohistochemistry confirmed neural differentiation. Solitary ganglioneuromas are not associated with systemic or genetic conditions; They can be safely removed using endoscopic procedures, as they rarely have complications or recurrence. [1–5]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP095V Band-assisted endoscopic mucosal resection of synchronic gastric and esophageal granular cell tumours

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Abstract Text Granular cell tumours (GCT) are uncommon soft tissue neoplasms. Up to 10 % arise in the gastrointestinal tract (esophageal, colonic and gastric in order of frequency). They are thought to have a Schwann cell origin (S-100 and neuron-specific enolase +). The majority have a benign course, although malignant GCT have been rarely reported. The literature has depicted multiple treatment approaches, being a conservative attitude an accepted option. It is unclear if endoscopic surveillance is required in those cases. The differential diagnosis encompasses other submucosal lesions, varying according to the location. EUS may misdiagnose GCT as neuroendocrine tumours, as its echoendoscopic appearance may be similar. [1–4]

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/129d72cd-9eec-480f-af31-81e4e6ab1d98/Uploads/13821_Tumor_c%C3%A9lulas%20granulares%20definitivo.mov

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP096 Prevalence and endoscopic-histological correlation of premalignant gastric lesions in Uruguay

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Aims The aim were to 1) to establish the prevalence, and 2) perform endoscopic-histological correlation of premalignant gastric lesions using high-defi-

nition white light endoscopy (WLE); and 3) to determine the interobserver agreement for the endoscopic findings of chronic atrophic gastritis (CGA)) and intestinal metaplasia (IM) in the largest hospital in Uruguay.

Methods This was a prospective, observational, descriptive, cross-sectional study carried out at a Uruguayan hospital in the period June-November 2019 during a 6-month period. Patients over 18 years who attended an ambulatory upper endoscopy were included and gastric biopsies, according to the modified Sydney protocol, were performed. *Helicobacter pylori* infection was determinedated by hematoxylin-eosin and Giemsa. Risk was stratified according to OLGA and OLGIM stage for CAG and IM, respectively. An independent and blinded second observer was included to determine the interobserver agreement.

Results One hundred and two patients (average mean age 57 years ± 1.6 years) were included, (seventy, (68.6 %) were women. The prevalences of CAG and IM were 38.2 % and IM 31.4 %, respectively. Endoscopic-histological correlation for CAG was 43 vs 39 patients, kappa index 0.063, sensitivity 46 % and specificity 60 %. For IM, the correlation was 10 vs 32 patients, kappa index 0.216, sensitivity 22 % and specificity 96 %. Interobserver variability was good for gastric fold flattening and very good in the presence of whitish-greyish plaques for CAG and IM, respectively. [1–52]

Conclusions The endoscopic-histological correlation of both CAG and IM was low raising the need for biopsy for diagnosis in all cases, regardless of the HD-endoscopic WLE findings. Although the prevalence of premalignant lesions in this group of Uruguayan patients was comparable to those described in countries with a high incidence of gastric cancer, a low proportion of high-risk stages (III and IV) was identified.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP097 Association of head and neck cancer with esophageal squamous cell carcinoma

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Aims Esophageal cancer (EC) is the eighth most common cancer worldwide and it comprises two major subtypes: esophageal adenocarcinoma (EAC) and esophageal squamous cell carcinoma (ESCC). There are few studies on the relationship between ESCC and head and neck squamous cell carcinoma (HNSCC). Our study aimed to describe the incidence of HNSCC in patients with ESCC , survival and the chronology of appearance and to evaluate potential risk factors.

Methods A retrospective review was carried out through a computerized database of patients diagnosed with ESCC at Hospital Clinic of Barcelona between January 1999 and June 2019. Age, gender, smoking and alcohol habits, date of ESCC diagnosis, survival time, primary tumor location, diagnosis of HNSCC and chronological relationship between the two neoplasms, treatment and registry of other neoplasms were recorded.

Results A total of 231 patients with ESCC confirmed histologically were included in the study with a median age of 64 years (IQR, 56.0-72.0), and 178 (77 %) were male. The majority of the patients had a history of smoking and alcohol consumption (69.7 % and 60.6 %, respectively). The predominant location of ESCC was the middle esophagus (n = 124, 53.7 %).

Forty-one patients (17.7 %) had HNSCC: 20 (48.8 %) were previous, 15 (36.6 %) synchronous and 6 (14.6 %) metachronous. The most frequent HNSCC locations were larynx and oral cavity. 53.9 % of the HNC cases were diagnosed within 5 years of the ESCC diagnosis. [1]

Patients with ESCC and alcohol consumption or smoking had more HNSCC (78.1 % vs 56.8 %; p = 0.036 and 87.8 % vs 65.8 %; p = 0.017, respectively).

All the patients were followed and 52 (53.1 %) died with a median survival time of 9.5 months (IQR, 6.0 – 18.7). With respect to gender, age, ESCC location and presence of HNSCC, there were not statistically significant differences among the living patients and the deceased.

Conclusions The HNSCC have a significant incidence in patients with ESCC. 53.9 % of the HNC cases were diagnosed within 5 years of the ESCC diagnosis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP098 Impact of a social network workgroup to improve gastroenterologists' skills in characterizing colorectal neoplasia: a prospective study

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Aims Accurate endoscopic characterization of colorectal lesions is essential for predicting histology but remains difficult. We studied the impact of a social network workgroup on the level of characterization of colorectal lesions by gastroenterologists.

Methods We prospectively involved gastroenterologists who characterized 25 and 40 colorectal lesions in two different questionnaires over one year. Three groups were considered: regulars who were already part of the workgroup before the first evaluation, newcomers who joined in during evaluation and reluctant who did not. Participants assessed each lesion according to the CONECCT classification[1,2]. The correct histological status was defined by pathology reports or combined criteria between histology and expert opinion. [1–2]

Results 83.7 % of the 127 participants completed the two questionnaires, with 21.7 % regulars, 67.0 % newcomers and 11.3 % reluctant. For similar starting levels, progression in characterization was + 2.0 [1.1, 2.9], p < 0.001 for newcomers and + 1.8 (-0.2 [-2.7, -2.2], p = 0.837 compared to newcomers) for reluctant. The regulars had a higher starting level with a + 0.3 (-1.7 [-3.5, -0.1], p = 0.071 compared to newcomers) progression score.

Conclusions Assiduous viewing of characterization instructional videos would enable better progress than enrolling alone in a social network workgroup, where the degree of content visualization was low. Further intensive training is needed to improve the characterization level of gastroenterologists.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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ePosters 2

eP099 Submucosal lesions in the colon may not always require R0 en bloc endoscopic resection

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Aims Sub-mucosal lesions of the colon are much rarer than those located in the rectum [1], and their resection technique has been little studied. Based on that of rectal lesions, it most often aims for R0 en bloc resection, but without formal proof of efficacy. Consequently, the question of whether these demanding and not risk-free techniques (ESD, EFTR) should be used to treat submucosal lesions of the colon remains uncertain to date, and requires further investigation.

Methods We conducted an international retrospective study between January 2012 and May 2023, collecting all colonic submucosal lesions with histology confirmed by resection or biopsy. We assessed the proportion of lesions correctly managed by endoscopy, so that the proposed resection technique offered a level of tumor resection quality appropriate to the definitive histology of the lesion.

Results The study included 78 patients with 81 colonic submucosal lesions, from 11 European centers. Mean lesion size was 15.0 mm, and 55.6 % (45/81) were located beyond the right angle. The resection techniques used included 19.8 % (16/81) cold loop resections, 33.3 % (27/81) conventional mucosectomies, one underwater mucosectomy, 24.7 % (20/81) submucosal dissections, two hydride dissections and 13.6 % (11/81) EFTR resections. Immediate complications included 2.5 % (2/81) perforations, and there were no delayed complications. The study included 60.5 % (49/81) R0 en bloc resections and 9.8 % (8/81) biopsies. Histology revealed 92.6 % (75/81) benign lesions (including one hamartoma), one GIST, two neuroendocrine neoplasia, one lymphoma and one leiomyosarcomma. The resections used were curative in 3.7 % (3/81) of cases, not curative in 3.7 % (3/81) and no resection was necessary in 91.4 % (74/81) of cases.

Conclusions R0 en bloc resection of colonic submucosal lesions was an appropriate technique in 7.4 % of cases. We propose a new therapeutic approach for colonic submucosal lesions, involving the 1st intention use of a low-risk, low-cost histological diagnostic technique (biopsy or cold loop) followed in a 2nd phase by a more advanced technique (ESD, EFTR) on the scar in the event of a negative histological result. Further studies are needed to evaluate this strategy, as well as the best technique for obtaining histological evidence between biopsy and cold loop.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP100 Obscure Gastrointestinal Bleeding Due To A Neuroendocrine Tumor. About a case

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Abstract Text We present a case of a 78-year-old male, from Portugal, with a history of laparoscopic sigmoidectomy for colorectal neoplasm in 2018, as well as, focal epilepsy, colonic diverticulosis, hepatic hemangioma, ischemic heart disease with by-pass and a biological aortic prothesis. We met the patient in 2018 with a first episode of obscure gastrointestinal bleeding. A complete endoscopic study was conducted at that time, revealing multiple erosions in the distal jejunum and proximal ileum as the cause of the bleeding. In 2023, he had another episode of melena. It was decided to repeat the capsule endoscopy that suggested a neoplastic origin of the bleeding, and a decision was made for surgical resection. Ultimately, the histological study confirmed the diagnosis of well-differentiated neuroendocrine tumor with infiltration of mesenteric fat (pT3Nx). [1–8]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP101V Endoscopic resection of large brunner's gland adenoma or brunneroma

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Abstract Text An 84-year-old man was being studied for iron deficiency anemia. Gastroscopy showed a large pedunculated lesion (6x2x3cm) on the inferior surface of the duodenal bulb. A bloc excision was performed with loop diathermy, without immediate or delayed complications. The pathological study confirms an BGA with no evidence of malignancy. [1]

Brunner's gland adenoma (BGA) is a rare gastrointestinal tumor derived from Brunner's glands located in the duodenal submucosa. Bulb is the most frequent location. The treatment is based on endoscopic resection, reserving surgery for suspected malignancy or non-feasible endoscopic treatment. Resection of BGA should be considered due to the possibility of malignant degeneration and complications (anemia or obstruction).

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/eee3f35f-b626-4681-9b34-b17966c31a03/Uploads/13821_Brunneroma_ESGE%20DAYs%2024.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP102 Endoscopic assessment of submucosal invasion depth and evaluation of endoscopic resection in T1 colorectal cancer ≤ 20mm in size

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Aims Endoscopic pretreatment evaluation for distinguishing between superficial submucosal cancer (T1a) and deep submucosal cancer (T1b) in colorectal cancers (CRC) ≤ 20mm in size is challenging due to the low prevalence of submucosal invasion within this size. It is also not clear that an endoscopic resection (ER) could be an option as a total excision biopsy for these lesions. We analyzed a group of patients with T1 CRC particularly ≤ 20mm in size to identify predictive endoscopic features associated with deep submucosal invasion, and evaluated the feasibility of ER in these patients.

Methods We retrospectively reviewed the medical record and extracted T1 CRC treated in our hospital. We excluded patients with more than two CRCs and those with pedunculated lesion. The presence of seven morphological features including expansion/stiffness, erosion/ulceration, fold convergent, depression area, non-polypoid growth, strong redness, and chicken skin appearance were assessed with white light imaging (WLI), and so were vascular and surface pattern with narrow band imaging (NBI) using Japan NBI expert team (JNET) classification. We rated these factors and compared between T1a and T1b lesions. Short term outcomes of endoscopic resection were analyzed.

Results Of 104 patients who underwent resection for T1 lesion between January 2019 and September 2023, we examined 63 lesions in size 20mm or less. 68 % (43/63) were treated with ER (endoscopic mucosal resection (EMR) in 95 % and endoscopic submucosal dissection (ESD) in 5 %) and 32 % with surgical resection (SR). Among predictive factors with WLI, expansion/stiffness (odds ratio, 4.6; P = 0.04) and strong redness (odds ratio, 6.7, P < 0.01) were associated with deep submucosal invasion. Multivariate analysis including all findings revealed that only JNET3 significantly associated with T1b (odds ratio, 10.2; P < 0.01). Lesions positive for all these three findings showed 95 % (18/19) sensitivity for T1b. In ER cases, en bloc resection and R0 resection were obtained in 91 % (39/43) and 74 % (32/43). Although 21 % (9/43) had antithrombic therapy, no adverse events occurred including bleeding and perforation. Based on a pathological assessment of resected specimen, additional surgery was performed in 58 % (25/43). [1]

Conclusions In T1 CRC ≤ 20mm in size, we associated expansion, stiffness, strong redness, and JNET3 with increased risk of deep submucosal invasion. In cases with difficulty in estimating the submucosal invasion depth, preceding EMR for T1 CRC ≤ 20mm may be feasible as the total excision biopsy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP103 Radiofrecuency as an alternative treatment for actinic proctitis instead of argon plasma

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Aims Radiofrequency is a thermal treatment mostly used for Barrett esophagus. This therapy can make an extensive thermal ablation of the mucosa and this fact could be used for treat diffuse mucosal pathology like in actinic proctitis.

Methods We describe retrospectively four cases of actin proctitis between 2021 and 2023 who presents recurrent bleeding and anemia treated with radiofrequency with a focal catheter. We studied the levels of haemoglobin before and after the treatment and the presence or absence of bleeding after it.

Results Before the treatment patients have an haemoglobin of 9.5g/dL, 9.7g/dL, 10.1g/dL and 12 g/dL respectively with an average of 10.3 g/dL. After the treatment three of the patients have an haemoglobin of 10.8g/dL, 11.6g/dL, 14.8g/dL respectively, (we don't have haemoglobin control of the last patient) with an average of 12.4g/dL. The range of time for this analysis was between one and three months. After the treatment the patients don't refer bleeding or less than previously. None refer major complications.

Conclusions Actin proctitis after radiotherapy can be a challenge pathology for endoscopic treatment. Classically this pathology has been treated with argon plasma [1] but its technically difficult to apply thermal ablation with this method to an extensive tract of mucosa and have good results. Also with argon plasma you don't control the deep thermal injury so it's more probable to cause more complications [2]. For that reasons radiofrequency could be an option to manage this patients and to achieve an extensive homogeneous mucosa thermal ablation controlling deep injury with less complications.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP104 Case Report: Removal of duodenal over-the-scope clip via duodenoscope

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DOI 10.1055/s-0044-1783393

Aims To show a successful over-the-scope clip removal via duodenoscope

Methods Clinical case report

Results Over-the-scope clips can be used for endoscopic closure of wall defects in the upper and lower GI tract, for stent fixation and primary hemostasis. In upper GI bleeding, the use of over-the-scope clip is superior to through-the scope (TTS) Clips [1].

While over-the-scope clips can be left in place in most cases, complications like intestinal stenosis require a removal. As underlined in clinical cohorts, the remOVE DC Cutter is a safe tool applying to gastroscopes or colonoscopes [2]. In contrast, the use of duodenoscopes in this setting is uncommon.

In our case 2 over-the-scope clips were used for bleeding duodenal ulcers. One misplaced over-the-scope clip was successfully removed by using the remOVE DC Cutter via duodenoscope.

The Case: A 75y old male patient presented with signs of upper GI bleeding. Index endoscopy revealed kissing ulcers in the duodenum. For primary hemostasis, two mini over-the-scope clips were placed.

Two days after, the patient showed signs of cholestasis.

Initially, a CT scan was performed to rule out a liver abscess or other reasons for cholestasis. CT scan showed one over-the-scope clip in papillary position with compression of the common bile duct.

An immediate endoscopic control with standard gastroscope could not clearly visualize the papilla, with two over-the-scope clips in the duodenum. Changing to a duodenoscope could localize the distant over-the-scope clip misplaced around the papilla – due to initial straightening of the duodenum when deploying the over-the-scope clip. Using a distant cap + dual channel gastroscope, a grasping forceps and the remOVE DC cutter were inserted. In the second part of the duodenum – in an unstable position- the integer over-the-scope clip ring could not be visualized and contacted by the DC cutter.

Therefore we changed to a duodenoscope to improve stability – now the elevator allowed to contact the over-the-scope clip in the upper and lower part with sufficient pressure.

The over-the-scope clip ring was disintegrated into two parts, and removed using the grasping forceps. The use of bipolar direct current did not lead to significant mucosal lesions. Bile flow started immediately after clip removal, so we abandoned further cannulation of the common bile duct.

Further clinical course was uneventful without signs of bleeding, the patient recovered and was discharged.

Conclusions Removing over-the-scope clip in the second part of the duodenum can be performed safely using a duodenoscope. The elevator allows contacting the ring with sufficient pressure. Using bipolar direct current via the remOVE DC cutter does not lead to significant mucosal lesions.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP105V Endoscopic Treatment of Proximal Esophageal Stricture: A Case Report

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DOI 10.1055/s-0044-1783394

Abstract Text A 60-year-old male is under our care for endoscopic management of a proximal esophageal stricture, resulting from caustic ingestion 18 years prior. In the last year, we have initiated treatment of the stricture by incising the fibrotic tissue using a needle-knife papillotome, followed by pneumatic dilation up to 20 mm. Post-procedure, the patient is prescribed a short course of oral budesonide gel. This monthly treatment regimen ensures the patient's ability to maintain a regular diet and avoid parenteral nutrition.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/84e8f603-43d4-4859-9503-e3ee49a08763/Uploads/13821_video_case%20report.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP106 A retrospective analysis to assess the importance of doing a biliary sphincterotomy as a method to increase and simplify cannulation success rate of the main pancreatic duct

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DOI 10.1055/s-0044-1783395

Aims A retrospective analysis to assess the importance of doing a biliary sphincterotomy as a method to increase and simplify cannulation success rate of the main pancreatic duct.

Methods Retrospective analysis of pancreatic ERCP from October 2008 to May 2023 (n = 1206) in our tertiary care center.

All cases were done by a single operator.

All cases where MPD could not be cannulated in three attempts, or MPD not cannulated directly in 10 minutes or CBD cannulated first were studied.

When direct MPD cannulation failed we attempted to cannulate the CBD first or when CBD was first cannulated during an MPD cannulation, we did a biliary sphincterotomy wide enough to separate the biliary and pancreatic orifices and then cannulated the MPD with a cannula and a glide wire.

Results N = 1206 Successful direct MPD cannulation: 982 (81.4 %) Difficult Cannulation: 224 (18.6 %) CBD cannulated first: 199 out of 224 (88.9 %) Biliary Sphincterotomy done: 199 (100 %) Successful MPD Cannulation after biliary sphincterotomy: 185 (92.9 %) Failed MPD cannulation after biliary sphincterotomy: 14 (7.03 %) Pancreas Divisum found: 10/14- failed cannulations (71.4 %) Failed MPD cannulation overall: 25 out of 1206 (2.07 %)

Conclusions If direct MPD cannulation is difficult, cannulating the CBD first and doing a biliary sphincterotomy improves the MPD cannulation success rate significantly- from 81.4 % to 92.9 %. Out of failed MPD cannulation after biliary sphincterotomy, 71.4 % cases had pancreas Divisum which was not detected on prior imaging. Those who could not be cannulated at all were subjected to EUS guided drainage/surgery.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP107 To see the diagnostic yield of EUS prior to ERCP for patients with dilated CBD and other inconclusive imaging studies with normal or borderline derangement of LFT

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DOI 10.1055/s-0044-1783396

Aims To see the diagnostic yield of EUS prior to ERCP for patients with dilated CBD and other inconclusive imaging studies with normal or borderline derangement of LFT.

Methods A retrospective analysis of 900 patients, referred for ERCP in last 6 years with inconclusive imaging study for dilated CBD and normal to borderline LFT derangement. The diagnostic yield of EUS prior to ERCP was measured. The feasibility and outcome of combined EUS-ERCP was recorded.

Results EUS was able to diagnose the cause of CBD dilatation in all case- Diagnostic yield-100 %. 600 patients (66.67 %) underwent ERCP procedure and 300 patients (33.33 %) had avoided unnecessary ERCP.

Conclusions Dilated CBD on non-invasive imaging with normal or borderline derangement of LFT and unremarkable physical signs has been always a diagnostic dilemma.

In the clinical setting, however, to determine the presence of ductal calculi remains a significant dilemma; a balance must be struck between invasive ERCP, associated complications and potential inaccurate diagnosis. [1–2]

EUS has remarkable diagnostic yield in detecting etiology of dilated CBD and avoids unnecessary ERCP's in patients with unidentified cause on Ultrasound, CT scan or MRCP.

Combined EUS-ERCP is feasible, cost effective and can diagnose the cause of dilated CBD with inconclusive other imaging modalities accurately and thus can avoid unnecessary ERCPs.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP108 ESD for submucosal and subepithelial lesions- single center experience in India

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DOI 10.1055/s-0044-1783397

Aims Feasibility and outcome of ESD for early submucosal and subepithelial lesion of gastrointestinal tract in India- a single center experience

Methods Total 174 consecutive patients with early mucosal neoplasms [EMNs] and suitable subepithelial tumours [SETs] underwent ESD by a single endoscopist from 2015 till date. Lesion location/size/type, ESD duration, histology, adverse events and hospital stay recorded prospectively.

Results Total no. of patients – 174Location – 18 esophagus, 86 stomach, 08 duodenum, 04 colon and 58 rectum Median age 60 (11-89).Sex distribution- 108 males, 66 females.Histology: 07 carcinomas, 67 adenomas, 20 gastrointestinal stromal tumors [GISTs], 28 carcinoids, 06 leiomyomas, 08 pancreatic rests, 10 lipomas and 28 other. Benign lesions such as pancreatic rests and lipomas were resected when symptomatic such as obstruction or ulceration/bleeding.Mean size was 2.7 cm.En bloc resection was achieved in 173/174 (99.42 %).R0 resection achieved in 164/174 (94.25 %) .AE rate- 02 patient had perforation which was managed with laparoscopic closure. 06 patients had muscle defects which were managed with hemoclipsMedian procedure time was 21 minutesThe median length of stay was 2 days.Recurrence rate – 02 patient had recurrence who underwent right hemicolectomy

Conclusions Our series, the first large ESD series from the western India to provide detailed procedural and outcomes data, demonstrates favorable R0 resection rates 94.25 %. ESD is feasible and safe with favorable outcomes in terms of complete resection with fewer complications, reduced recurrence rate and less hospital stay in properly selected cases. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP109 Feasibility & outcome of sharp FB removal without protective devices or endotracheal intubation

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Aims To study the feasibility and outcome of endoscopic extraction of sharp foreign bodies in UGI tract without use of overtube/hood and without endotracheal intubation.

Methods Retrospective analysis of patients presented with ingested sharp foreign bodies in upper GI tract who underwent endoscopic extraction without use of overtube or hood and without endotracheal intubation during January 2015 till date irrespective of age.

Results Total no. of patients- 28Age group- 1 year to 81 yearsMean age- 28.7 yearsPediatric age group- 12/28 (42.8 %)Geriatric age group- 05/28 (17.8 %) Male : female ratio- 13 : 15Most common site- upper 1/3 of esophagusSuccess rate- 100 %Complications – nil

Conclusions Our analysis showed that endoscopic extraction of sharp foreign bodies is feasible and offers 100 % success rate even without use of over tube/hood or other protective devices and without endotracheal intubation. This seems correct even for the pediatric and geriatric age groups.Our protocol is to use accessory depending on type of FB and site. Snare is a good for FBs beyond second part of duodenum. FB grasper can be useful in majority. The trick while retrieving FB is "not too hold the object too tight & keep it at a slanting position" these enables it to move freely over a mucosa and chances of mucosal injury avoided. For impacted FBs, our strategy is to first dis-impact it at one end, make it aligned in direction of accessory and gentle pull under direct endoscopic view

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP110 Role of random biopsies and histological analysis in Indian patients with chronic diarrhoea and normal colonoscopy findings

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DOI 10.1055/s-0044-1783399

Aims To evaluate whether the biopsies performed in patients with chronic diarrhoea and a normal colonoscopy contribute to the differential diagnosis and alter the therapeutic approach.

Methods Patients from September 2015 to September 2023 who met the inclusion criteria were selected. Patients with chronic diarrhoea and a normal colonoscopy underwent serial biopsies of the terminal ileum, ceacum, ascending colon, transverse colon, descending colon and rectum. [1–2]

Results Total no. of patients- 300 75 showed histological changes: 40 patients had active colitis/focal active colitis. 12 lymphocytic colitis, 05 eosinophilic inflammation; 10 lymphoid hyperplasia; 05 diverticuli associated colitis. 03 melanosis. The sites with the largest number of changes were the terminal ileum and right colon.

Conclusions Serial biopsies in patients with chronic diarrhoea and normal colonoscopy identified changes in almost 25 % of cases and modified the treatment after identification of collagenous, lymphocytic and Eosinophilic colitis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP111 Novel preprocedural preparation before POEM-Simplified

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DOI 10.1055/s-0044-1783400

Aims To devise a simple yet effective method for preprocedural preparation for POEM

Methods We have devised a scoring system depending on the status of esophageal mucosa, presence of fluid/froth and severity of candidial infection on the initial endoscopy.Grade I – clean esophagusGrade II – presence of fluid/froth + crumpled normal mucosaGrade III- fluid/froth + intermittent esophageal candidiasisGrade IV- fluid/froth + severe candidiasisGrade V- extensive food residue + candidiasisA comparative analysis of 100 patients with Achalasia cardia. Group – A (n = 50) – conventional preparation1. Clear liquids for 48 hours2. NBM for 24 hours prior to POEM3. Thorough wash with saline on the day before POEMGroup – B (n = 50) – novel method1. patients are kept on warm water and limca "carbonated drink" only2. NBM for 6 hours prior to POEM3. No thorough wash

Results No difference was found in group I to III in both the groups for luminal clearance. But Group-B was superior in terms of shorter stay, less cost (10000 INR less) and more compliance. All the patients of Grade-V and 2 of Grade-IV in group-A required additional wash prior to POEM.Group-B patients had clear lumen even in grade-IV and V. Group-B patients had benefit of less exposure to anesthetic drugs as they undergo only one procedure compared to group-A where they undergo twice. [1–2]

Conclusions our protocol for preparation before POEM is simple yet more cost effective, more compliant and more reliable.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP112 CT/MRCP negative for pancreas divisum: Is it always reliable?. A retrospective analysis

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Aims To see the prevalence of pancreas divisum in CT/MRCP negative for divisum. Minor papilla cannulation attempt in such cases increases the technical success rate.

Methods A retrospective analysis of pancreatic ERCP performed for symptomatic chronic pancreatitis from 2021 till date at a tertiary care center in India. All the patient had either CT or MRCP as an imaging modality prior to ERCP. Major papilla cannulation was tried first in every patient as a standard technique. The patients in whom there was difficulty in deep cannulation even after engaged sphincterotome, pancreas divisum was suspected and minor papilla cannulation was then attempted.

Results Total no. of ERPs- 143 Major pancreatic duct cannulation- 110 (76.92 %) Minor pancreatic duct cannulation (pancreas divisum) due to failed MPD cannulation- 15 (13.63 %) Failed cannulation- 18 (16.36 %) Out of failed cases- 03 had disconnected pancreatic duct, 08 had extreme edema and deformity and 07 had large stones burden.

Conclusions CT/MRCP doesn't always pick up pancreas divisum. In such cases when glide wire didn't go deep in MPD despite good engaged sphincterotome, a suspicion of divisum should be kept in mind. Minor papilla cannulation and further endotherapy increases the success rate and better outcome for patients in such cases. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP113 Comparison of short term vs long term training in endoscopy in prospect to need for repeat endoscopy difference in findings and results- An Indian Scenario- single center observation

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DOI 10.1055/s-0044-1783402

Aims To Compare short term vs long term training in endoscopy in prospect to need for repeat endoscopy. To compare difference in findings and results. Do we need a structured training program governed by a committee of state medical council?

Methods Data was collected prospectively from September 2019 till July 2023. The patients undergoing or referred for repeat endoscopy were included. Demographic data, clinical data, endoscopic equipment used and the training of primary endoscopist whether short term or long term were recorded. The outcome of repeat endoscopy was recorded in terms of correct diagnosis, technical success and improvement in patients clinical condition. All the procedures were performed by a consultant endoscopist with long term training and experience of more than 7 years in a high volume center.

A training, anywhere from 4 days to 30 days was considered as short term and more than 1-2 years in gastroenterology institute with large volume was considered as long term training

Results Total 33 patients were studied (n = 34). Female – 11. Male- 23. Median age- 28 years. GI bleed without finding cause or failure of procedure- 09 patients. Alarm symptoms (dysphagia and weight loss) and inconclusive findings- 13 patients. Non alarming but persistent symptoms- 10 patients. Jaundice with failed ERCP- 02 patients.

Short term training- 22 (Surgeons and physicians). Long term training- 12 (DNB and DM Gastroenterologists)

Scope used- Olympus 130 series- 01, 140 series- 08, 150 series- 16, 180 series- 01, 260 series- 01. 170 series-04. 190 series- 03

Repeat endoscopy for missed or incorrect diagnosis and failed procedure was observed more with short term training (64 %) with use of lower version scopes (47 %) whereas wrong technique and advanced procedure was the major cause for failure in long term training. Technical success rate- 100 %, Correct diagnosis and favorable outcome was achieved on repeat endoscopy in all 33 patients.

Conclusions short term training is not at all helpful even in the basic diagnostic procedures, it may help for the maintenance and further increasing skills in case of trained endoscopist. Short term training also adds extra cost and morbidity to the patient. Even for long term training in case of DNB/DM gastroenterologists, a further training in advanced therapeutic endoscopy for a duration of one or two year at high volume center is necessary before embarking on a independent private practice for the well-being of patients. A multicenter study may throw more light on this issue. India doesn't have such structured training and protocols as compared to other regions abroad. Establishment of such standards and practice of GI endoscopy endorsed by all the society, state medical council and MCI is the need of an hour. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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Endoscopy 2024; 56: S1–S503

eP114V Successful closure using Over-the-scope-Clip of an H-type Congenital Esophagobronchial Fistula presenting in an Adult with Recurrent Pneumonia

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Abstract Text Over-the-scope-Clip has been gaining attention as an alternative to closure of gastrointestinal defects. Congenital esophagobronchial fistula of adult onset is rare as they escape diagnosis masquerading as subtle chronic cough, and recurrent pneumonia. We report a case of a 56-year-old female where on esophagoscopy, a fistulous tract was identified at level 28cm of the esophagus from the incisors. An over-the-scope-Clip was successfully deployed over the fistula. An esophagogram confirmed no extravasation of contrast of the fistula. After 12 weeks on follow-up, patient has no recurrence of symptoms, a repeat gastroscopy showed the deployed clip remaining in place along the course of visualization. To the best of our knowledge, this is the first report of a congenital h-type esophagobronchial fistula successfully closed using the over-the-scope-clip [1–13].

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/d69fd87b-262f-4af4-90f0-8448145152d3/Uploads/13821_Ovesco_on%20Congenital%20Fistula.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP115 Clinical characteristics of patients with hereditary hemorrhagic telangiectasia: Real-life data, single-center experience

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Aims Hereditary hemorrhagic telangiectasia (HHT) also known as Osler-Weber-Rendu syndrome (OWRS), is a rare hereditary disease. HHT is characterized by arteriovenous malformations (telangiectasia). The most important and the most common manifestation is epistaxis. In this study, we aimed to examine the clinical characteristics and disease course of patients diagnosed with HHT.

Methods 14 HHT patients followed at a tertiary university hospital were examined. Information about the patients was obtained from patient files. The study was designed as retrospectively. The patients were examined in terms of their demographic characteristics, disease characteristics, gastrointestinal (GI) bleeding history, family history, and survival characteristics.

Results In total, 5 out of 14 patients (35.7 %) were female and 9 (64.2 %) were male. The average age of the patients is 65.67 ± 12.61 years. The mean disease age was 148.8 ± 84.13 months. Although there was no significant statistical difference between them, male patients had a longer disease duration ($P > 0.05$). 4 of the patients (28.6 %) were diagnosed HHT with gastrointestinal system bleeding. A total of 10 (71.4 %) patients developed a history of GI bleeding during their follow-up. The number of patients who had no GI bleeding during their follow-up was 2 (14.2 %). More than one GI bleeding occurred in 5 (35.7 %) patients. 10 patients had a history of epistaxis.

All patients underwent endoscopic evaluation. Only one patient had telangiectasia in the colon, except that all other patients had telangiectasia in the upper GI tract. The source of GI bleeding in all but one patient was from the upper GI tract. During their follow-up, argon plasma coagulation was performed in 7 patients. No endoscopic intervention was required in 7 patients. 3 patients also had extraintestinal visceral involvement. Hepatic arteriovenous malformation was observed in 1 of them and cerebral arteriovenous malformation was observed in 2 of them. First-degree relatives of 3 patients were diagnosed with HHT.

At the end of the follow-up, 4 patients died.

Conclusions HHT or OWRS, is a rare genetic disease that seriously affects patients in terms of both morbidity and mortality, and gastroenterologist has an important role in patient follow-up and management.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP116 Environmental impact of small-bowel capsule endoscopy

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Aims The environmental impact of endoscopy, including small-bowel capsule endoscopy (SBCE), has gained attention due to its contribution to the global carbon footprint. This study aimed to evaluate the greenhouse gas (GHG) emissions (kgCO2e) of SBCE, including devices life cycle and the impact of capsule journey.

Methods SBCE devices (3 brands) were evaluated using life cycle assessment methodology (ISO 14040), including patient travelling, bowel preparation, capsule examination and video recording. A survey was conducted on 120 patients undergoing a SBCE to gather data on their transportation, activities during the procedure, and awareness of pollution generated.

Results For the 3 different devices, the weight of the capsule itself was 4 g (3.9-5.2 % of the total weight), while 43 to 119 g were attributed for packaging (9-97 %) including 5 g of deactivation magnets (4-6 %) and 11 to 50 g for instruction forms (40 %). A full SBCE generated between 19 and 20 kgCO2e, including 0.04 kgCO2e (0.2 %) for the capsule itself and 18 kgCO2e related to patient travelling (94.7 %). Capsule retrieval would add 0.98 kgCO2e using dedicated devices. Capsule deconstruction revealed components (e.g. Neodymium) that are prohibited from environmental disposal. 76 % of patients were not aware of the illegal nature of flushing capsules, and 63 % would be willing to retrieve it.

Conclusions The GHG emission of SBCE is mainly determined by patient travelling. The capsule device itself has a comparably low carbon footprint. Considering that disposal of capsule components is illegal, retrieval of the capsule seems crucial but increasing device-related emissions.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP117 Managing perforations in colonoscopies detected by our endoscopy unit in an intraprocedural manner. A descriptive study

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DOI 10.1055/s-0044-1783406

Aims Perforations are one of the most relevant complications of colonoscopies. Albeit infrequent, they show an important morbimortality rate.

An incidence of 0.1-0.8 % (up to 8 % in therapeutic colonoscopy) and a mortality rate of 5-25 % have been reported.

Devices allowing endoscopic closure of perforations are now available: through-the-scope clips and over-the-scope devices, which aim to avoid surgery.

Assessing perforation risk factors, endoscopic treatment effectiveness and subsequent clinical evolution.

Methods Descriptive and retrospective study, including patients whose intraprocedural endoscopic perforation was detected between January/2015 and December/2022.

Epidemiological, clinical and endoscopic variables were collected.

Technical success was defined as achieving a correct intraprocedural endoscopic closure in the same act, while clinical success was defined as not needing subsequent surgery.

Results 15 perforations were detected in an intraprocedural manner and 2 after reintroducing the endoscopy due to abdominal pain in the recovery room.

Average age was 75.52 years with female predominance (58.82 %). 76.47 % presented a ≥ 3 Charlson index.

Endoscopic management was initially attempted in 88.23 % (15) of the cases, with 40 % using hemoclips and 60 % using "over-the-scope" devices (13.33 % Ovesco and 46.67 % Padlock, regarding the total). The remaining 2 cases underwent surgery.

Technical success was achieved in 86.67 %. Rescue surgery was required in 1 case after failing to adequately place an Ovesco. In the other case, placement of a Padlock was unsuccessfully attempted, limiting the therapeutic effort due to advanced neoplastic disease.

Regarding risk factors, 35.29 % had diverticula and 52.94 % had received abdominal surgery.

All data related to place and cause of perforation is shown in Figures 1 and 2. We can observe that ascending colon and mucosectomy are the most frequent, respectively.

A total of 9 (52.94 %) polypectomies were performed. Data are shown in Figure 3.

There were 2 *exitus* (11.76 %), both due to advanced neoplastic disease.

The average length of hospitalization was 9.26 days.

Conclusions Our study shows that the main risk factor for perforation is mucosectomy, mainly in the ascending colon. Other risk factors such as previous abdominal surgery, diverticula, or high comorbidity should be considered. [1–3]

If the perforation is detected in an intraprocedural manner, endoscopic closure is safe and effective; perforation closure is achieved in most cases and should always be attempted.

It is necessary to maintain a high diagnostic suspicion, especially in cases with higher risk, either due to the technique performed or the patient's profile.

Larger studies are needed to verify our results.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP118 Management of perforations which are secondary to ERCP and were detected intra-procedurally in our endoscopy unit. A descriptive study

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DOI 10.1055/s-0044-1783407

Aims Perforations are one of the most relevant complications of endoscopic retrograde cholangiography (ERCP) due to its high morbimortality.

Literature shows a perforation incidence of 0.1-2.1 %, with a mortality rate as high as 36 %.

Immediate endoscopic closure with over-the-scope devices, through-the-scope clips and coated biliary metal stents (CBMS) for bile duct perforations can all avoid surgery.

The aim of study is to assess perforation risk factors, their endoscopic management and evolution by comparing these data with those with surgical or conservative management.

Methods A descriptive and retrospective study was performed, including patients whose endoscopic perforation was detected in an intraprocedural manner or in the immediate post-test radiological control between January 2015 and December 2021.

Epidemiological, clinical and endoscopic variables were collected.

Technical success was defined as achieving a correct intraprocedural endoscopic closure, while clinical success was defined as not needing subsequent surgery.

Results 19 perforations by ERCP were detected: 13 during ERCP and 6 in the radiological control with fluoroscopy. Average age was 74.42 years with female predominance (63.15 %). Charlson index ≥ 3 was 84.21 %.

Conservative management was carried out in 5 cases and attempted endoscopic closure in 7, with a technical success rate of 71.42 %, and initial surgery in 4 cases. Rescue surgery was required in 2 cases, one due to conservative management failure and the other upon CBMS failure. Therapeutic effort was limited in 3 patients due to advanced neoplastic disease.

Regarding risk factors, 31.57 % presented duodenal diverticula, increasing the risk of perforation due to technical difficulty and a thinner duodenal wall.

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All data related to anatomical area of perforation (duodenal wall and bile duct are the most common areas), management according to perforation location and techniques causing perforation (papillotome usage and traumatic are the main perforation cause) are shown in Figures 1, 2 and 3 respectively.
Data on mortality and hospital stay are shown in Table 1, with a tendency to a higher average length of hospital stay and mortality among surgical patients.
Conclusions Our study shows that the main causes of perforation were the use of papillotome and traumatic causes. Duodenal diverticula were the main risk factor, justifying the higher risk anatomical areas, as well as the presence of other comorbidities.
There is a tendency to a higher average length of hospital stay and mortality among patients who underwent either initial and/or rescue surgery. [1–3]
A high diagnostic suspicion is necessary, especially in cases deemed as higher risk due to the patient's profile and the technique used.
Studies with a larger sample are needed to confirm our results.
Conflicts of interest Authors do not have any conflict of interest to disclose.
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eP119 The effectiveness of the joint application of cytochrome c and sandostatin to hepatocytes in acute pancreatitis

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DOI 10.1055/s-0044-1783408
Aims To determine the effectiveness of cytochrome-sandostatin co-application in acute experimental pancreatitis.
Methods The experiments were carried out on 60 mature outbred male rats with an initial body weight of 120-140 g. Acute experimental pancreatitis was induced in rats according to the method of PS Simovaryan (1973): local freezing of the surface of the pancreas with ethyl chloride. For the correction animals were used for 10 days under/skin injected with 0.007 mg/kg body weight medicinal preparation Sandostatin – synthetic octapeptide, a derivative of the natural hormone somatostatin of NOVARTIS PHARMA STEIN, AG (Switzerland) and intramuscularly injected 0.15 mg/kg body weight cytochrome with – SAMSON-MED, LLC (Russia). The degree of damage to the pancreas was determined by determining the activity of pancreatic amylase in the blood, with a set of test systems from Demeditec, Germany. The activity of GPT and GOT in the blood serum was determined using a set of test systems Human, Germany, which is the degree of fire of hepatocytes. The determination of the content of antibodies to liver microsomal in the blood clotting (anti-LKM-1), as well as cytochrome 1A1 activity, was carried out using a set of test systems Elabscience, USA. The research was conducted on the 7th and 10th days of research, and the slaughter of animals was carried out under anesthesia. The experiments were guided by the «European Convention for the Protection of Vertebrate Animals, which is used for experiments and other scientific purposes» (Strasbourg, 1985).
Results The development of acute pancreatitis in sick animals was accompanied by an increase in GPT concentrations of 6 and 8 times on the 7th and 10th days of the experiment in comparison with intact animals, in the same period GOT activity increased 5 and 6 times. Cytochrome-P-450 CYP 1A1 activity on the 7th and 10th days of the experiment increased by 2.2 and 2.8 times, respectively, compared to healthy animals. Anti-Lkm-1 content increased 1.6 and 2 times for the 7th and 10th days of the experiment. In the case of animal correction, GPT activity decreased by 3 and 5 times in the 7th and 10-day study, respectively, compared to sick animals, in the same period GOT decreased by 2.5 and 3.6 times. Cytochrome-P-450 CYP 1A1 activity decreased by a factor of 1.6 and 2.6. Anti-LKM1- levels decreased by 27.8 % and 38 % respectively on the 7th and 10th day of the study, compared to sick animals.
Conclusions Thus, the simulation of acute experimental pancreatitis was accompanied by a violation of the detoxifying function of hepatocytes, which is determined by the development of mitochondrial apoptosis and output of the cytochrome 1A1 fractions. The obtained results prove the corrective action of cytochrome c on the condition of the monooxygenase liver system during the development of acute experimental pancreatitis.
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP120V New TTS suture device. Are we at the beginning of a new era of endoscopic surgery?

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DOI 10.1055/s-0044-1783409
Abstract Text Endoscopic suturing is one of the areas that we need to improve more, so that third space techniques become increasingly advanced and at the same time safe, and it is one of the least developed areas.
During this year, new closure techniques are being launched, with manual suturing being one of the most promising as it allows the use of standard surgical suture through a conventional endoscope.
We demonstrate the closure of a large rectal eschar measuring 5 + 5 cm with resorbable barbed suture, which would be very complex to close with standard techniques and we will discuss the technique and tricks for carrying it out.
Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/c9a196d5-39fb-438a-b074-685a261e50bb/Uploads/13821_Sutura_ESGE%20Days%202024.mov
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP121 An unexpected finding underlying colonic pseudolipomatosis

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DOI 10.1055/s-0044-1783410
Abstract Text 56-year-old healthy asymptomatic woman, who underwent a screening colonoscopy. In the transverse colon: 15 mm whitish flat elevated lesion (Paris 0-IIa, NICE 1) (Fig 1). We perform an underwater endoscopic mucosal resection en bloc. Histopathological examination revealed a serrated sessile lesion (SSL) and multiple empty vacuoles in the lamina propria (Fig 2).
Colonic pseudolipomatosis (CP) is a rare benign condition usually asymptomatic that affects mostly the left colon [4, 5]. Its etiology is unclear but considered caused by mechanical or chemical endoscopic injury. CP regresses spontaneously within weeks or months [3]. To our knowledge, in the available literature there have been no previous reports describing CP with underlying SSL [3] and it should be noted this possibility and its different approach and surveillance [1, 2].
Conflicts of interest Authors do not have any conflict of interest to disclose.
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eP122 Unlucky microcystic serous cystoadenoma. A case report of an unexpected degeneration

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DOI 10.1055/s-0044-1783411

Aims Pancreatic serous cystadenoma (SCA) is a benign neoplastic lesion with a distinctive gross and microscopic appearance consisting of numerous thin-walled cysts lined by uniform epithelial cells with clear cytoplasm and small nuclei. The vast majority of serous cystadenomas are benign. Extensive degeneration mimicking a pancreatic pseudocyst has been described in several types of pancreatic neoplasms.

Methods We present a challenging case of a pancreatic SCA, diagnosed in 2022 with histological confirmation. The echoendoscopic evaluation describes a solid lesion with minimal cystic component, approximately 3 centimeters in size, resulting in compression of the common bile duct (CBD), fine needle aspiration (FNA) was performed. The cytological report points out "various ductulo-tubular microstructures lined with cuboidal and columnar epithelium with cytoplasm rich in glycogen, free of cytological atypia". We performed a close follow up because of recurrent cholangitis. A plastic stent was placed to prevent future cholangitis episodes but in September 2023 the patient was hospitalized again due to another acute septic episode with evidence of CBD dilation on radiological diagnostic work-up. Three other brushing were performed during biliary stent replacement, always negative for neoplastic cells during the follow-up. The CT scan showed, unexpectedly, vascular invasion of superior mesenteric vein (VMS) with "rat-tail" tapering to the portal olive, never encountered before on radiological investigations performed. So the patient underwent EUS-FNB (fine needle biopsy), ERCP with plastic stent positioning and CBD brushing.

Results EUS-FNB result was negative for neoplastic cells, instead brushing cytological analysis positive for adenocarcinoma cells, compatible with pancreatobiliary histotype. We reffered the patient to the oncologist, according with multidisciplinar group, with purpose of starting neoadjuvant chemotherapy with PAX-G scheme (Nabpaclitaxel, Cisplatin, Gemcitabine and Capecitabine) because the neoplasia was considered locally advanced. The patient, after sistemic therapy, will undergo duodenocephalopancreasectomy.

Conclusions In conclusion, SCA is a benign neoplastic lesion without indication to perform follow up unless symptomatic (bulging symptoms or recurrent cholangitis) due to very low risk of malignant evolution. In this case report, the diagnosis of malignant degeneration was made only because SCA was simptomatic, but despite the close follow up neoplasia was classified locally advanced. Percentage of SCA degeneration is very low but still present. Does it worth performing an oncological follow up in patients with similar clinical condition?

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP123 Review of endoscopic procedure, findings and diagnosis related to esophageal food bolus impaction in a terciary hospital: a retrospective study

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DOI 10.1055/s-0044-1783412

Aims Food bolus impaction (FIB) is a common emergency in gastroenterology, requiring in many cases of endoscopic retrieval. It is associated with chronic conditions such as eosinophilic esophagitis (EoE), Schatzki's ring (SR) or peptic strictures, with a higher risk of recurrence. The aim of this study is to analyze the endoscopic findings during urgent endoscopy due to FIB and the cause underlying those episodes.

Methods A retrospective review of our hospital's endoscopy database was conducted from January 2010 to December 2021. All upper endoscopy with diagnosis of esophageal foreign body were reviewed (n = 743), selecting those cases with food bolus impaction (n = 372).

Results We included 372 cases of FBI. Mean age was 50 years old (yo) (SD ± 19). Seventy percent of all endoscopies were performed in men. Respect to clinical data, 22.9 % (n = 85) had personal history of asthma or extrinsic allergy, 9.7 % (n = 36) of gastro-esophageal surgery, 16.7 % (n = 62) of neurologic disorders and 6.72 % (n = 25) of esophageal or laryngo-pharynx neoplasia. Personal history of previous FIB was registered in 16 % (n = 58) patients and previous diagnosis of EoE, SR, strictures or achalasia were registered in 3.2 % (n = 12), 6.18 % (n = 23) and 0.8 %(n = 3) respectively. The most frequent allocation for FIB was distal esophagus (57 %, n = 211). In 54.7 % (n = 203) of all cases was performed the bolus retrieval while in 21,8 % (n = 79) the bolus was pushed to the stomach. In 78 cases (21.3 %) the bolus advanced spontaneously with insufflation. After removal of FIB, according to endoscopic findings, SR was described in 35 % (n = 131) of all endoscopies, benign stenosis in 13.7 % (n = 51) and imaging compatible with EoE in 16 % (n = 59). In a quarter of all endoscopies was not possible to identify a structural cause for FIB. As a consequence of FIB, the most common finding was mucosal inflammation (MI) (n = 82) followed by ulcers (n = 55). Active bleeding during the endoscopy was described in 27 cases, 10 of them related to MI, 9 due to ulcers and 5 of them because of mucosal lacerations. Six cases of pneumonia were registered, and 2 cases of FIB evolved to esophageal perforation. Only one death was registered, due to pneumonia in the elderly. After the FIB episode, the most common diagnosis for FIB was SR (32 %, n = 119), EoE (19.4 %, n = 72) and benign strictures (11.3 %, n = 42). In patients under 40 yo (n = 92), the most frequent diagnosis is EoE (53 %, n = 49) followed by SR (17.4 % n = 16) and strictures (4 %, n = 4). In the group of age between 40-65 yo the most frequent cause of FIB is SR (31.1 %, n = 42) followed by EoE (17.3 %, n = 23) and benign strictures (13 %, n = 17). In the elderly group, above 65 yo, the most frequent cause of FIB are SR (42 %, n = 61), strictures (14.5 %, n = 21) and hiatal hernia (6.9 %, n = 10). [1–2]

Conclusions FIB is more common in men. FIB most frequent location is distal esophagus. In most cases is necessary the removal of the impacted bolus. Complications are infrequent and mild in the vast majority of cases. The most frequent cause of FIB is SR, although EoE is more prevalent under 40 yo.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP124V An unusual case of pancreatic cyst

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DOI 10.1055/s-0044-1783413

Abstract Text 64 yo man has a clinical history of cirrhosis. An abdominal US follow-up and a subsequent CT scan diagnosed cholelithiasis, two big pancre-

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atic cysts, and thickening of the colon wall, with multiple mesenteric lymph-nodes. A colonoscopy and biopsies revealed a signet-ring cell colon carcinoma(CCR). Laparoscopic cholecystectomy, segmental colon resection, and removal of multiple mesenteric lymph nodes were performed and adjuvant CH was started. To study the pancreatic cysts, a pEUS with FNA and Micro-forceps was performed. Histopathology confirmed the presence of mucus with signet-ring adenocarcinoma cells inside the body cyst, and amorphous and biliary material, along with numerous histiocytes inside the tail cyst. With all these findings, a diagnosis of pancreatic tail pseudocyst and a rare case of pancreatic body metastasis of signet-ring cell CCR was established. [1]

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/397abc79-4ff1-4816-97c1-98a23f025b6b/Uploads/13821_video_pancreatic%20cyst.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP125V Ovesco clip closure of colo-vaginal fistula in diverticulitis

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DOI 10.1055/s-0044-1783414

Abstract Text 90 year/female. H/o passing stool per vagina since 1 month. H/o of diverticulitis. CECT Abdomen was s/o colo-vaginal fistula. colonoscopy confirmed diverticular disease of left colon without fistula. An UGI scope was introduced per Vagina to evaluate the fistula. After localization, a guide wire was placed for localization of fistula on colonic site. Because of very small size, a decision was taken to make the fistulous track raw with use of brush followed by closure with cyanoacrylate glue. This didn't work. An attempt of Ovesco clip closure was considered in view of age and co-morbidities. Methylene blue was injected surrounding the glide wire for future reference. A site marking was done with dual knife. A glide wire was then removed and ovesco clip was applied where the site was marked.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/d517b8e4-8793-469d-b4db-19ac1f2da541/Uploads/13821_Dr_Chintan%20patel%20colovaginal%20fistula%20ovesco%20clip%20closure.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP126V Persistent biliary leak despite ERCP stenting- post hydatid surgery, glue to rescue

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DOI 10.1055/s-0044-1783415

Abstract Text A 30 year old female. past history of epigastric pain and vomiting.CECT abdomen was s/o 9 * 8 * 7 cm sized hydatid cyst. She underwent laparoscopic deroofing and drainage. She developed biliary leak after 1 month. She was offered a conservative management for a period of 2 weeks which failed to resolve a leak. Patient underwent ERCP which showed a segment II biliary leak. A 7 Fr DPT biliary stent was placed. Despite of biliary decompression for a period of 2 months, biliary leak was persistent. Repeat ERCP-Cholangiogram showed a persistent contrast leak with a small thin tract. The tract was made raw with a use of brush. A balloon catheter was passed till the site of fistula.1 ml of cyanoacrylate glue f/b lipiodol was injected to close the tract. Repeat cholangiogram showed the closure of biliary fistula and no contrast leak.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/d09abe14-51bd-496d-9d4d-1587005ed2e4/Uploads/13821_persistent_biliary%20leak%20despite%20ERCP%20stenting%20post%20hydatid%20surg....mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP127 Endoscopic Treatment of Zenker´s diverticula and cricopharyngeal bar with a novel super pulsed Thulium fiber laser

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DOI 10.1055/s-0044-1783416

Aims Electrosurgery is the standard for endoscopic interventions in Zenker's diverticula (ZD) and cricopharyngeal bar (CB). This case series explores the application of a Thulium fiber laser (TFL) as an alternative modality. This study assesses the feasibility and effectiveness of a 1920nm super pulsed TFL in treating ZD and CB.

Methods We retrospectively analyzed 8 patients treated at Haukeland University Hospital from November 2022 to August 2023, monitoring both acute and delayed postoperative outcomes and treatment efficacy. Procedures were conducted under general anesthesia or deep sedation, utilizing a 365 or 550 micron TFL fiber with a 4.5-7 Fr triple-lumen cannula for enhanced fiber stability. Physiological saline was employed for irrigation, with energy settings ranging from 10-25W.

Results The cohort comprised five males and three females, all symptomatic for ZD and CB but ineligible for surgical intervention due to rigid necks or significant comorbidities. The average age was 81 years. The mean procedure duration was 57 minutes. One non-intubated patient developed postoperative pneumonia, but no other acute or delayed complications were observed. All patients exhibited improvement in dysphagia at follow-up. The same instrument was used for all procedural steps in every case.

Conclusions The use of TFL in the endoscopic treatment of ZD and CB appears to be a viable option. Its benefits include reduced CO2 usage, high precision, and effective tissue ablation. The laser's fiber size and properties are particularly advantageous for confined anatomical spaces. However, a learning curve and specific accessories are requisite for optimal use. Further research is necessary to substantiate these preliminary findings.

Conflicts of interest Pham KDC is consultant, speaker and trainer for Olympus EMEA

eP128 Jejunal Dieulafoy's Lesion: An Exceptionally Rare and Challenging Culprit of Gastrointestinal Bleeding

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DOI 10.1055/s-0044-1783417

Abstract Text A 78-year-old male presented with fatigue and melena, necessitating blood transfusion. His medical history was unremarkable. Initial endoscopies were inconclusive, prompting a capsule endoscopy that revealed an active bleeding site in the jejunum. Device-assisted enteroscopy confirmed a mid-jejunum Dieulafoy's lesion, initially managed with two through-the-scope clips. Ongoing melena and decreasing hemoglobin led to a subsequent device-assisted enteroscopy, revealing continued bleeding. Definitive hemostasis was achieved through diluted adrenaline injection, four additional through-the-scope clips, and polidocanol sclerotherapy. With just over a hundred reported cases of jejunal Dieulafoy's lesions, our experience underscores the essential role of capsule endoscopy followed by purposeful multimodal therapeutic intervention through device-assisted enteroscopy. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP129 Bowel Preparation for Small Bowel Capsule Endoscopy: Standard Regimen with 2L PEG versus 1L PEG plus Ascorbate

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Aims The use of purgative bowel preparations with 2 liters of iso-osmolar polyethylene glycol (PEG) is endorsed by international guidelines to improve small bowel capsule endoscopy (SBCE) visibility and accuracy. We compared the efficacy of a standard formulation of 2L PEG solution with 1L PEG plus ascorbate (PEG-ASC), which is already used for large bowel preparation.

Methods Between October 2020 and February 2022, all patients receiving SBCE in our academic center received 2L PEG or 1L PEG-ASC prior to SBCE.

Results A total of 221 SBCE examinations were performed; 147 patients received 2L PEG, while 74 had 1L PEG-ASC. We found a nearly statistically significant difference between 1L PEG-ASC and 2L PEG regarding sufficient mucosal visibility (small bowel mucosal visibility ≥ 2 in all three SB tertiles, p = 0.07). No differences were noted between the two groups in diagnostic yield (p = 1.0), total visibility score = 9 (p = 0.85), video-capsule endoscopy (VCE) completeness (p = 0.33) and mucosal visibility in each tertile (p = 0.61, p = 0.74 and p = 0.70 for the first, second and third tertile, respectively).

Conclusions Our study suggests that 1L PEG-ASC is an effective solution for SBCE preparation, comparable to that obtained with standard 2L PEG.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP130 Clinical Impact of PillCam Crohn's Capsule Endoscopy in Inflammatory Bowel Disease Management

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DOI 10.1055/s-0044-1783419

Aims PillCam Crohn's Capsule (PCC) enables comprehensive examination of the entire gastrointestinal tract, offering high diagnostic yield for small bowel and colonic inflammation in Crohn's disease (CD) patients. Despite its potential, limited research has focused on the clinical implications of PCC in routine clinical practice. This study aimed to investigate the clinical impact of PCC in the management of inflammatory bowel disease (IBD) patients.

Methods PCC procedures conducted as part of IBD investigations were retrospectively selected and patient clinical records were analyzed.

Results A total of 72 PCC systematic procedures were included, of these patients 62.5 % were females with a mean age of 42 ± 15 years. The clinical indication for the procedure was suspected CD in 52 (72.2 %) patients, 18 (25 %) for CD reevaluation, and 2 (2.8 %) for Ulcerative Colitis assessment. We observed a rate of 77.8 % complete examinations. PCC procedures directly influenced management decisions in 34 (47.2 %) of patients. Specifically, in suspected CD cases, PCC altered the management in 27 patients (51.9 %), favoring CD diagnosis in 7 (25.9 %), and revealing other conditions in 20 (74.1 %). In those patients submitted to PCC for CD staging, the procedure prompted management changes in 38.9 % of patients (n = 7). Among these, six patients underwent therapeutic step-up, while one patient's diagnosis was revised to irritable bowel syndrome. [1]

Conclusions Our study demonstrates the substantial clinical impact of non-invasive PillCam Crohn's capsule endoscopy in the management of IBD patients. PCC not only aids in the accurate diagnosis, staging and therapeutic management of CD but also plays a crucial role in identifying alternative conditions.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP131 The Presence of Scarring Significantly Impacts Blink Decision Making in Large Non-pedunculated Colorectal Polyps and should therefore be Proactively Identified

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DOI 10.1055/s-0044-1783420

Aims The detection of cancer within large non-pedunculated colorectal polyps (LNPCPs) is suboptimal in non-expert settings. Identification of 6 macroscopic (Blink) features (6BF) of deep submucosal invasive cancer (SMI) has shown significant improvement in the sensitivity of cancer detection by inexperienced endoscopists at the expense of decreased specificity. This study investigates the impact of endoscopic resection scars, which can resemble deep SMI, on the accuracy of non-expert endoscopists using the 6BF evaluation system known as Blink Impression.

Methods An online survey was disseminated containing 20 overview images of LNPCPs (1 image/polyp). Images (randomized) were shown before, and after a 2-minute educational video (the intervention) introducing the 6BF – fold deformation, extra redness, depression, chicken skin mucosa, ulceration and spontaneous bleeding. Before and after the intervention participant Blink Impression was elicited (cancer/no cancer) and only after, the presence of the 6BF. Responses were analysed relative to histopathology (no vs superficial vs deep SMI) and expert opinion on the presence of the 6BF and endoscopic resection scars.

Results 7/20 LNPCPs contained cancer (3 superficial, 4 deep SMI), 3 contained scars. 191 participants from 21 countries completed 3,755 observations. 129/191 (67.5 %) participants were inexperienced. Expert-identified scarred LNPCPs contained median 1.0 (IQR 2.0) BF vs 1.0 (IQR 2.0) for no cancer, 2.0 (IQR 2.0) for superficial SMI and 3.0 (IQR 2.0) for deep SMI (all P < .001). Presence of ≥ 2 BF therefore reliably identifies cancer within LNPCPs but not scars. Fold deformation was the only BF identified more commonly amongst scarred LNPCPs (44.6 %) vs no cancer (22.5 %, P < .001) and vs superficial SMI (33.0 %, P < .001), but similar to deep SMI (44.6 %, P = 1.000). Depression, chicken skin mucosa and spontaneous bleeding were less commonly identified in scarred polyps (12.3 %, 7.6 % and 1.8 %) than both no cancer (33.1 %, 14.4 % and 8.6 %, all P < .001), superficially invasive (68.6 %, 14.3 % and 5.8 %, all P < .001) or deeply invasive polyps (45.9 %, 19.6 % and 40.5 %, all P < .001). Extra redness and ulceration were identified with similar frequency to no cancer in scars (26.4 % vs 26.8 %, P = 0.891 and 10.2 % vs 9 %, P = 0.441 respectively), but less commonly than superficial (64.2 %, P < .001 and 15.7 %, P < .001) or deep SMI (60.2 %, P < .001 and 24.7 %, P < .001). [1]

Conclusions The presence of ≥ 2BF reliably discriminates LNPCPs with cancer from non-cancer even in the presence of scarred lesions amongst non-expert

endoscopists. Scarred LNPCPs exhibit fold deformation at a similar rate to LN-PCPs with deep SMI but other BF are not present.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP132V Giant pediculated subepithelial cervical esophagus lesion: dissection after circumferential marking and unusual post procedure complication

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DOI 10.1055/s-0044-1783421

Abstract Text A 58-year-old man with dysphagia and dyspnea presented a pedunculated lesion implanted in the cricopharyngeus from 20 to 34cm of incisors. EUS demonstrated a hyperechogenic, homogeneous, submucosa-dependent lesion, EUS-FNB compatible with angiolipoma. The pedicle was circumferentially marked, en bloc dissection was performed, due to its size, it was fragmented into the stomach with a polypectomy snare, managing to resect and recover only a fragment of 4x3cm. After discharged, patient re-consulted with melena, showing a fibrined esophageal ulcer and five extensive Forrest III gastric ulcers due to thermal damage during previous attempt of snare fragmentation, requiring only conservative management. Esophageal angiolipomas present as giant pedunculated lesions that can cause dysphagia and dyspnea. They are endoscopically resectable, but complex to fragment and to extract orally. [1–2]

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/44ec5728-e0a1-4668-a61d-dc54aa9231b9/Uploads/13821_CERVICAL_ESOPHAGUS%20LESION.mp4

Conflicts of interest H. Uchima is consultant for Lumendi, collaborates with ERBE Spain, Olympus Iberia, and Izasa, and has received congress registration from Casen-Recordati

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eP133 Diaphragm disease diagnosed by capsule endoscopy: a single center's experience

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DOI 10.1055/s-0044-1783422

Aims Diaphragm disease is a rare entity characterized by the presence of multiple rings in the small bowel that narrow the lumen. The symptoms are variable: iron-deficiency anemia, bleeding, obstruction, alteration of the intestinal habit or acute abdomen due to perforation. It is usually associated with high doses of non-steroidal anti-inflammatory drugs (NSAIDs). Capsule endoscopy or enteroscopy are usually required to diagnose it, as diaphragms are often overlooked in imaging tests.

The aim is to analyze the cases of diaphragm disease diagnosed by capsule endoscopy, its causes, and evolution.

Methods Retrospective descriptive study of capsule procedures performed in our hospital and review of previous literature.

Results We reviewed 434 explorations, finding 3 cases of diaphragm disease (0.69 %).

- Case 1: a 54-year-old woman with chronic anemia. Normal upper endoscopy and colonoscopy. The capsule shows diaphragms from the middle jejunum. Incomplete examination without retention. The patient takes NSAIDs, improving after stopping them. The capsule is repeated with the persistence of residual diaphragms.
- Case 2: a 59-year-old man with malabsorptive syndrome and polyneuropathy. Upper endoscopy shows atrophic gastritis with metaplasia, H. pylori negative. Normal colonoscopy. The capsule shows jejunal diverticula, multiple ulcerated and friable diaphragms from the jejunum. Incomplete examination without retention. The patient does not consume NSAIDs. Positive bacterial overgrowth test. After treatment, better response to supplementation, without clinical improvement.
- Case 3: a 61-year-old woman with chronic anemia and transfusional requirements. Upper endoscopy shows chronic gastritis H. pylori negative. Normal colonoscopy. The capsule shows ulcerated and friable diaphragms from the jejunum. Incomplete examination. The capsule was not expelled after 14 days according to the patient, but she rejected abdominal radiography. She consumes NSAIDs. Irregular follow-up due to alcoholism. [1–3]

Conclusions The main cause of diaphragm disease is NSAIDs. In previous series, it has been described in up to 2 % of patients under long treatment. Other reported causes include potassium intake, celiac disease, eosinophilic gastroenteritis, and radiation damage. We present an idiopathic case.

1. In our series, all patients undergo the capsule for chronic anemia, without symptoms. According to the previous series, the most common presentation is chronic anemia and signs of intestinal obstruction.
2. Diaphragm disease is a major cause of incomplete capsule exploration. In none of our cases, the procedure is complete. In addition, the risk of retention is also high, in the previous series up to 70 %.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP134 Neuroma of the appendix; an unusual histopathological finding in a case of appendicitis

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DOI 10.1055/s-0044-1783423

Abstract Text This is a case report of a young male patient who presented with features of acute abdomen, upon which a clinical diagnosis of acute appendicitis was made, and for which he subsequently had appendectomy. Histopathological examination of the appendix showed transmural inflammation and a localised subepithelial spindle cell neoplasm, with positive S100 immunostaining in keeping with a neuroma. This case report demonstrates the co-occurence of neuroma with acute appendicitis. Neuromas, and other mesenchymal neoplasms are amongst uncommon pathologies that may occur in the appendix. Therefore, a thorough clinicopathological evaluation of the appendix is necessary for diagnosis, adequate management and follow-up. [1–4]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP135V Endoscopic management of colonic perforation and extra-colonic arterial bleeding after polyp resction by hybrid-ESD

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DOI 10.1055/s-0044-1783424

Abstract Text We present the case of a 81yo patient with a lateral spreading tumor located on a colonic fold, at the hepatic flexure. The lesion was engaged by hybrid-ESD technique, in order to ensure en-bloc resection and to minimize procedural time. Complete resection was followed by full-thickness perforation and arterial bleeding. Closer examination revealed the bleeding vessel was located outside the colon (in the pericolonic fat). The vessel was clipped through the colonic parietal defect and then the defect was completely closed (surrounding the clips used for hemostasis). This endoscopic management was followed by 5 days of iv antibiotics and the patient was then discharged without any complications and without the need for surgical intervention.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/eee75fe7-2f00-4915-b661-0574fbb193c2/Uploads/13821_ESGE_abstract%20clip.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP136 Results of Preoperative endoscopic treatment for the management of concomitant gallstones and common bile duct stones: experience of a Tunisian center

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DOI 10.1055/s-0044-1783425

Aims Endoscopic retrograde cholangiopancreatography (ERCP) with endoscopic biliary sphincterotomy and stone extraction is the gold standard for the treatment of common bile duct (CBD) stones associated with gallstones. The aim of this study was to evaluate the success rate and the morbidity of this procedure in our management experience.

Methods Our study is retrospective conducted from june 2017 to december 2022 including all patients who underwent preoperative ERCP for the treatment of CBD stones associated with gallstones in the Gastroenterology departement of Taher Maamouri Hospital in Tunisia.

Results A total of 498 patients were included. The mean age was 61.08 years. The sex ratio was 0.52. Hepatic colic was the most common mode of presentation (37.6 %) followed by acute cholangitis (30.1 %) while 25 patients were asymptomatic. Bile duct cannulation was successful in 467 patients (93.7 %) during the first ERCP. Among patients with failed papillary cannulation, eight underwent a second ERCP with a mean interval of 21.63 days, all of which were successful. Thus, the overall bile duct cannulation rate was 95.38 % (475 patients). Common bile duct stones were identified in 67.57 % of cases (n = 321). CBD dilation was found in 424 patients (89.26 %). After performing endoscopic sphincterotomy, stones were extracted using balloon catheter and or dormia basket in 304 patients. Papillary balloon dilation was used in 80 patients (24.92 %), and mechanical lithotripsy was performed in 4 patients (1.24 %). After a first ERCP, bile duct clearance was achieved in 90.03 % of cases (289/321) while complete stone extraction was failed in 32 patients(9,97 %). Among this patients, 29 underwent second-line treatment, which consisted of biliary drainage using a biliary plastic stent (n = 26) or a nasobiliary drain (n = 23). A second attempt at stone extraction was made in 10 patients with biliary stents in place within a 62-day timeframe, with a success rate of 90 % (9/10).In total, bile duct clearance after the first and, if applicable, subsequent ERCP was achieved in 92.83 % of cases. ERCP was complicated by bleeding during the procedure in 30 patients (6.02 %) which was efficiently controlled in all cases. Post-procedure follow-up was available for only 74 patients (13.65 %), the complications observed in this patient group were : acute pancreatitis (n = 2), acute cholangitis (n = 2), perforation with bile peritonitis(n = 1) and complications related to general anesthesia (n = 4) while the mortality rate was zero. [1–4]

Conclusions Our experience confirms preoperative ERCP in an efficient and safe routine treatment for the management of choledicolithiasis associated with gallstones.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP137V Cholangioscopy with Electrohydraulic lithotripsy for treatment of remnant cystic duct lithiasis: a suitable therapy for surgical unsuitable patients

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DOI 10.1055/s-0044-1783426

Abstract Text A 60-year-old woman, with a past medical history of cholecystectomy,was admitted to our department for jaundice, fever and leukocytosis. Computerized Tomography scan showed a dilated remnant cystic duct (RCD) with thickened and hyperintense walls, without clear evidence of stones. EUS evaluation showed an enlarged RCD with thickened and hypoechoic walls with a 15 mm stone inside. The patient, unsuitable for surgery and after unsuccessful stones clearance using conventional ERCP techniques, underwent cholangioscopy which showed 2 impacted 15-mm RCD stones that were fragmented using electrohydraulic lithotripsy. Stone fragments were removed by Fogarty balloon. Final contrast fluoroscopy and second look cholangioscopy excluded residual lithiasis. One month after patient discharge, EUS excluded stones recurrence.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/fc80cd11-f3c9-4c14-aef4-050edfe0f492/Uploads/13821_Remnant_Cystic%20Duct%20Ehl%20220623-1080%20.mp4

Conflicts of interest : Vincenzo Cennamo, MD: member of the scientific board of Olympus Italia; Consultant for Novità Medicali and Euromedical. All other authors disclosed no financial relationships.

eP138V The strange case of the "foreign body" after cephalic duodenopancreatectomy

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DOI 10.1055/s-0044-1783427

Abstract Text A 58-year-old male underwent a cephalic duodenopancreatectomy (Whipple procedure) because of a pancreatic adenocarcinoma. One year after surgery, he presented a transient episode of diffuse abdominal pain. As a result, an abdominal computed tomography scan with contrast was requested, with findings suggestive of partial necrosis of the afferent jejunal loop.

In view of these findings, we performed a gastroscopy, in which we found a yellow jelly foreign body inside the afferent jejunal loop. Biopsies were taken, reporting the presence of amorphous material and inflammatory cellularity. One week later, a second gastroscopy was executed and the foreign body was removed. The sample was sent to the pathologists, who reported that it was indeed a complete fragment of jejunum wall with abundant necrohemorrhagic debris, likely related to an ischemic necrosis of the afferent loop.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/42cb2bf1-d62e-408d-9061-af66d2f00d7e/Uploads/13821_The_strange%20case%20of%20the%20foreign%20body.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP139 Dehiscence of colorectal anastomosis after anterior resection of the rectum – the role of the gastroenterologist and endoscopic vacuum therapy

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DOI 10.1055/s-0044-1783428

Abstract Text A 55-year-old healthy patient underwent to en bloc mucosectomy of a homogeneous non-granular 15mm lateral spreading tumour of proximal rectum, compatible with a malignant polyp, without endoscopic cure criteria. The patient was submitted to anterior resection of the rectum which was complicated with dehiscence of colorectal anastomosis. After partial response to antibiotic therapy and surgical reintervention, it was decided to use endoscopic vacuum therapy (EVT) with Endo-SPONGE vacuum system. After 5 EVT sessions, a significant clinical improvement was noticed. At the 5-month follow-up, the patient still asymptomatic, awaiting to the closure of the ileostomy. [1–3]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP140 Lung cancer metastases in jejunum: a case report

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DOI 10.1055/s-0044-1783429

Aims Our aim is to present the morphology of metastases in small intestine

Methods We present the case of a 72-year-old male, obese, with only one kidney, smoker, who came to our center due to paresthesias and loss of strength in the right upper limb, and also partial loss of vision.A cranial CT scan was performed at the Emergency Service, showing hypodensity in the white substance of the right frontal lobe. He was admitted to the Neurology Department. During his stay in hospital, the patient had several episodes of melena, so a gastroscopy was requested. In this gastroscopy, a 1.5cm Forrest III ulcer was observed in duodenum, with hematic remains, which was treated with diluted adrenaline in its four quadrants.

To complete the study, a complete CT scan was requested, showing right pulmonary neoplasia with carcinomatous lymphangitis, bilateral hilar and mediastinal lymph node extension and metastatic pleural effusion. It was found a localized thickness at jejunum, associated with pathological mesenteric adenopathies; which could correspond to atypical metastases in the small intestine. Due to the persistence of anemia during his stay (hemoglobin 7 despite blood transfusion), it was decided to perform a push enteroscopy to study the lesion which had been found in the jejunum by CT scan.In this enteroscopy, several umbilicated lesions with central ulcerations were observed beyond the second part of duodenum, which became larger at jejunum; some of them with signs of recent bleeding, and adherent clots. Biopsies of these lesions were taken (with a hard consistency while biopsy taking).

Results They were diagnosed as metastases of the already known pulmonary carcinoma (TTF1 + , CD45-).

Conclusions As a conclusion, we can affirm that lung cancer metastases can appear in small intestine, having form of umbilicated lesions which may have ulcers on its surface and may also be a cause of bleeding

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP141 Title: Does the presence of a second endoscopist increase adenoma detection rate?

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DOI 10.1055/s-0044-1783430

Aims The adenoma detection rate (ADR) is currently considered a quality criterion for colonoscopy, enabling colorectal cancer screening. Several factors influence this rate, including the quality of the colonoscopy and the endoscopist's performance.

The aim of our study is to evaluate the impact of the presence of a second endoscopist on the adenoma detection rate.

Methods We conducted a retrospective study analyzing the reports of colonoscopies performed between 2014 and 2022. Patient characteristics, indications for colonoscopy, preparation quality, and various endoscopic findings were collected, including the presence of polyps and the number of endoscopists present during the examination.

Results In total, 80 colonoscopy reports were analyzed, with a mean patient age of 62 years [range: 22-82 years]. The male-to-female sex ratio was 1.2. Indications for colonoscopy were primarily recent changes in bowel habits in 30 % of cases (n = 24), iron-deficiency anemia in 25 % of cases (n = 20), and rectal bleeding in 18 patients (22 %).

A Boston score of ≥ 7 was noted in only 20 % of the performed colonoscopies. The adenoma detection rate was 20 %, with only 25 % of detected polyps being larger than 1 cm. Polyps were primarily located in the left colon (80 % of cases).

There was no significant difference in the adenoma detection rate between colonoscopies performed without a second endoscopist and those performed with a second endoscopist present (22 % vs. 18 %, p = 0.32). However, good preparation (Boston score ≥ 7) was associated with a better adenoma detection rate (p = 0.02).

Conclusions The adenoma detection rate is one of the quality elements of colonoscopy. In our study, the presence of a second endoscopist did not increase the adenoma detection rate. However, having a second observer, especially if more experienced, could be beneficial for detecting, analyzing, and optimizing patient management.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP142 Post mucosectomy bleeding – a common complication – where are we and what have we learned? – Retrospective analysis of a non-tertiary hospital

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Aims Endoscopic resection (ER) is associated with a reduction in the incidence of colorectal cancer by 76-90 %. However, it is an invasive procedure and is not free from complications. Bleeding is the most common complication and has a variable incidence (1.5-2.8 % intraprocedural bledding [IPB]; 0.3-6.1 % post-polypectomy bleeding [PPB]). Anticoagulation (AC), location in the right colon, dimension > 30mm and use of prophylactic hemoclip (HC) in the right colon are risk factors (RF) for PPB. The risk of PIB appears to be higher in lateral spreading tumor (LST) and polyps (Pps) > 40mm. We aimed to analyse the rate of haemorrhage associated with colorectal ER (PIB and PPB) and relate it to patient characteristics, Pps and the technique used.

Methods Retrospective cohort study, based on a prospectively collected database, covering a period of 6 years (January 2014 to December 2019). Patients undergoing mucosectomy (EMR) of large non-pedunculate Pps (> 20mm) were included. Demographic data, Pps and EMR characteristics were analysed. IPB was defined as bleeding detected during the procedure and submitted to endoscopic therapy and PPB was defined as bleeding within 30 days after the procedure and which led to a visit to the hospital. Statistical analysis performed with SPSS (X2 test, Fishers exact test, odds ratio).

Results In the sample of 361 patients (64 % male; mean age 56 years), the overall bleeding rate was 19.3 % (IPB 16.9 % and PPB 3 %). Around 22 % were antiaggregated (AAG)/AC, which was associated with an increased risk of PPB (p-value > 0.05). Most PPB didn't require transfusion support and colonoscopy was performed without endoscopic therapy. The majority of Pps were LST (n = 282) and had an SMSA score 3-4 (n = 260), which was associated with a higher incidence of IPB (p-value 0.047). The right colon was the most common location (65.7 %) and there was no difference in the incidence of PPB compared to the left colon. Approximately 25 % of Pps were > 30 mm in size, which was associated with a higher incidence of PIB (p-value 0.001). Half of the Pps underwent en bloc EMR with a diathermic loop (53 %), which was associated with a lower incidence of IPB (p-value 0.016). HC were applied to 51 % of Pps (intent: 68 % (n = 123) prophylactic; 32 % (n = 57) therapeutic [IPB]). The rate of prophylactic HC was 36 % in the right colon and 30 % in the left colon, associated with a reduced risk of PPB (OR 0.159; 95 % CI [0.006; 3.835]). [1–6]

Conclusions The incidence of PPB was similar to values reported internationally, however the incidence of IPB was higher (no data from national portuguese series available). EMR proved to be safe in patients undergoing AAG/AC, despite the increased risk of PPB. The complexity of the Pps defined by the SMSA score appeared to signal an increased risk of PPB. The application of prophylactic HC was associated with a reduction in the risk of PPB.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP143 The performance of colonoscopy following a first episode of acute diverticulitis

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DOI 10.1055/s-0044-1783432

Aims Colonoscopy is often recommended following an episode of acute diverticulitis to rule out colorectal neoplasia. However, in the case of uncomplicated diverticulitis, the relevance of endoscopic exploration is increasingly debated. The aim of our study is to determine the performance of endoscopic exploration following an episode of acute diverticulitis.

Methods This is a retrospective study over a 5-year period, from 2016 to 2021, including 70 patients who underwent colonoscopy following an episode of acute diverticulitis. Clinical and radiological findings, as well as different endoscopic lesions, were noted.

Results We included 70 patients (34 females and 36 males) with a mean age of 52 years. Only one patient had a family history of colorectal cancer.

The diagnosis of diverticulitis was confirmed in all patients based on abdominal computed tomography data. Diverticulitis was uncomplicated in 76 % of cases. Complications observed included diverticular abscess in 9 patients (52 %), perforation in 6 patients (35 %), and stenosis in 2 patients.

The median time between acute diverticulitis and colonoscopy was 2 months [1–6 months].

Colonoscopy did not reveal lesions in 72 % of cases (n = 51). Colonic polyps were present in 18 % of cases (n = 13). Half of the described polyps were smaller than 5mm. Only one patient had colorectal neoplasia.

Analytical study showed a statistically significant correlation between the presence of complications detected on initial imaging and the presence of endoscopic lesions (53 % vs 20 %, p = 0.038).

Conclusions The low yield of colonoscopy following acute diverticulitis explains the limitation of indications to complicated forms and individuals at risk of colorectal cancer.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP144 Iron deficiency anemia in young women: is colonoscopy mandatory for etiological assessment in the absence of alarm signs?

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Aims The etiological diagnosis of iron deficiency anemia in young women, in the absence of an obvious gynecological cause, necessitates the exclusion of neoplastic or benign pathologies of the digestive tract. Colonoscopy is one of the investigations in the etiological assessment.
The purpose of our study is to specify the contribution of colonoscopy in the etiological assessment of iron deficiency anemia in women under 45 years old.
Methods This is a retrospective descriptive study spanning a 6-year period (2015–2020), including patients under 45 years old who underwent colonoscopy for the exploration of iron deficiency anemia without an obvious gynecological cause.
Results One hundred fifty-seven patients with an average age of 36 years (range: 16–44 years) were included. Upper digestive endoscopy, which returned normal, was performed for all patients. The mean hemoglobin level was 9.34 g/dl [3.6–10.9 g/dl]. Colonoscopy revealed no abnormalities in 141 patients (89 %). Various endoscopic abnormalities found included polyps in 43 % of cases, ileitis in 31 % of cases, angiodysplasia lesions in 13 % of cases, and ulcerative colitis in 12 % of cases. No colorectal cancer was found.
There was no statistically significant association between the detection of significant endoscopic lesions and hemoglobin levels (p = 0.440).
Conclusions Our study highlighted a low diagnostic yield of colonoscopy in the etiological diagnosis of iron deficiency anemia in young women. A more stringent selection based on the presence of digestive alarm signs could improve the efficiency of this examination.
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP145 Completeness of screening colonoscopy reports: cross sectional study in a national quality assurance program

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Aims Documentation of Key Performance Measures (KPM) recommended by the European Society for Gastrointestinal Endoscopy on written colonoscopy reports is paramount to establish quality assurance in screening programs. Whether KPM for screening colonoscopy can be extracted from written colonoscopy reports within a quality assurance program has not been investigated yet.
Methods We extracted KPM from written colonoscopy reports collected from a data audit between 2020-2021. Whether there was an association of the presence of KPM with the endoscopy service's specialty or setting (internal medicine practice, surgery practice, hospital), Adenoma Detection Rate or annual colonoscopy volume was assessed using a logistic regression model.
Results 319 reports were analyzed. Except for the documentation of cecal intubation, no specialty or setting reached completeness in documentation of all KPM. While internal medicine private practice endoscopists had lower report quality in the documentation of adequate polypectomy technique (OR 0.23, 95 % CI 0.0734 – 0.7225, p = 0.0118), reports from private practice surgeons were incomplete in terms of bowel preparation documentation (OR 0.26, 0.0966 – 0.6821, p = 0.0064). The Adenoma Detection Rate or annual colonoscopy volume was not associated with higher report completeness.
Conclusions In this analysis of written colonoscopy reports from a quality assurance program, we observed overall high missingness of KPM elements in screening colonoscopy. We did not observe a particular pattern of high missingness in a single specialty or setting, hence, report quality improvement initiatives should target all colonoscopy providers.
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP146 Performance and adverse events of the motorized power spiral enteroscopy (PSE) in a case series at Eastern Europe: a single tertiary center experience

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Aims Motorized power spiral enteroscopy (PSE) was introduced as a promising new technique, that offers easier, faster, and more complete small bowel deep enteroscopy. There were reports of small bowel perforations and death, during PSE and withdrawal from the market of the device, due to these adverse events. The aim of our study was to evaluate the performance, efficacy, and safety and to report the adverse events, found during PSE in our clinical practice at a single tertiary endoscopy center in Eastern Europe.
Methods We retrospectively evaluated all consecutive patients undergoing PSE at the Department of Gastroenterology in University Hospital "Tsaritsa Yoanna – ISUL", Sofia, Bulgaria from June 2020 through December 2022. We have used PSF-1;(Olympus Medical Systems, Tokyo, Japan) and all patients were intubated during the procedure. Our primary outcomes were diagnostic and therapeutic yield, technical success, a success rate of pan-enteroscopy, depth of insertion and adverse events
Results A total of 20 procedures in 17 patients (60 % males, mean age 54 ± 14 years) were performed. In 11 patients from antegrade and 6 from retrograde approach, in 3 patients was both. The depth of insertion was considered sufficient when a target lesion was found and the calculated technical success rate was 81 % (9/11) of the antegrade route and 83 % (5/6) of the retrograde route. In a combined approach, a 66 % (2/3) target was reached. The total pan-enteroscopy rate was 30 % (6/20) in all procedures, and 36 % (4/11) for the anterograde approach to reach the cecum. Calculated overall diagnostic accuracy was 81.82 % (95 % CI). The median insertion time was 75 min for the antegrade and 70 min for the retrograde approach, respectively. Overall adverse events were found in 35 % (6/17) patients with transient mild abdominal pain and swallowing discomfort. Severe complications and major adverse events occurred in 23 % (4/17) of the patients. One patient suffered from intussusception of the sigmoid after PSE, which was resolved in open surgery. Three patients developed severe bradycardia and hypoventilation, which needed intensive care unit, to resolve after 24-72 hours. There were no perforations found or deaths of the patients due to PSE in our cohort. [1–2]
Conclusions In our case series examined by PSE during a two-year period, we found high diagnostic accuracy of the enteroscopy method, but we report a high complication rate with approximately one-third of major adverse events in our patient cohort due to PSE. Further technological development and innovation of the endoscopes are needed with the proper learning curve of the endoscopists to support patient safety.
Conflicts of interest Authors do not have any conflict of interest to disclose.
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eP147 Early Surgery After Hospitalization with Penetrating Crohn's Disease Reduces Adverse Sequelae compared to Conservative Treatment

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Aims Early surgical intervention in Crohn's disease (CD) with inflammatory (B1) phenotype has been shown to be equally successful compared to biologic treatment in the LIR!C study. On the other hand, the prospective multicenter CREOLE study demonstrated long term (>4 years) surgery free survival in stricturing (B2) CD in over 50 % of patients, treated with medical and endoscopic therapy. This work was aimed to compare long term outcomes between the early surgery and conservative treatment approach in patients presenting with penetrating (B3) CD.

Methods This was a retrospective, single tertiary center study, including adult CD patients hospitalized with penetrating abdominal CD, between 1/8/2010 to 30/6/2018. Demographic and clinical data were collected from hospital records. Patients were divided into 2 groups: (1) early surgery (< 12 weeks from index hospitalization), and (2) conservative treatment. Multivariable logistic regression model adjusted for age, sex and smoking status was used for statistical analysis.

Results A total of 43 CD patients [21 male (48.8 %), age 37.9 ± 15.1 years, disease duration 14.1 ± 12.0 years] were hospitalized during the study period for first presentation of penetrating CD. Twenty-three patients (53.5 %) underwent early surgery (69.5 % of whom manifested with abscesses), and the rest were managed non-surgically. Both groups were similar in terms of CD Montreal classification, smoking status, and type of penetrating complication. Follow up duration was comparable (median 5.2 ± 2.3 years vs 5.3 ± 2.3 years for early surgery vs conservative treatment, respectively). Exposure to biologics, immunomodulators and glucocorticoids was comparable between the groups before and after index hospitalization. During the follow up after discharge from the index hospitalization, patients in the surgical group had significantly lower incidence rates of recurrent abscesses (45 % vs 4.5 %, odds-ratio (OR) 0.04, p = 0.006), need for recurrent courses of antibiotics (55.0 % vs 14.3 %, OR 0.09, p = 0.07) and recurrent hospitalizations (70.0 % vs 39.1 %, OR 0.16, p = 0.017). Two patients (8.7 %) in the early surgery group underwent abdominal surgery during follow-up compared to six patients (30.0 %) of the conservative treatment group (OR 0.11, p = 0.04).

Conclusions In CD patients hospitalized with a penetrating complication, early surgery resulted in significantly less adverse long-term outcomes, such as recurrent abscesses, need for antibiotic treatment, hospitalizations, and surgeries than patients managed conservatively over a median follow up period of 5 years.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP148 Hiatal Hernia: risk factors, clinical and endoscopic aspects in gastroscopy

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Aims Hiatal hernia (HH) results from herniation of the stomach through the diaphragm. The objective of the present study was to investigate the frequency rate of HH among patients who underwent esophagogastroduodenoscopy (EGD) according to their age, gender, and procedural indication. Additionally, we aimed to analyze the clinical and endoscopic aspects associated with HH.

Methods A multicenter, retrospective study including all EGD procedures conducted across seven endoscopy departments between the years 2016 and 2021. Demographic information, procedural indications, and findings from the initial EGD were collected and subjected to statistical analysis using IBM SPSS version 26.

Results Out of the 162,608 EGDs examined, 96,369 (59.3 %) involved female patients, with a mean age of 53.9 ± 15.1 years. HH was identified in 39,619 (24.4 %) of all EGDs performed, comprising small HH in 31,562 (79.6 %), large HH in 3547 (9 %) and unknown size among 4510 (11.4 %). The prevalence of HH among patients who underwent EGD increased with age, reaching 16.5 % among the age group ≤ 50 years and 37.3 % in those ≥ 81 years. Regarding indications for procedure, HH was diagnosed in 11,370 (38.7 %) of patients presenting with heartburn, 31.5 % with dysphagia, 28.5 % with positive fecal occult blood tests, and 24.3 % of patients before undergoing bariatric surgery. In addition, age (OR 1.03, p < 0.001; 95 % CI [1.029,1.031]), female gender (OR 2.319, p < 0.001; 95 % CI [1.287,1.351]), reflux symptoms (OR 2.279, p < 0.001; 95 % CI [2.206-2.355]), and dysphagia (OR of 1.450, p < 0.001, 95 % CI 1.359-1.547) were identified as predictors for HH.

Conclusions Risk factors for hiatal hernia diagnosed through EGD in symptomatic patients was shown to be advanced age, female gender, and the presence of heartburn or dysphagia.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP149 Expect the unexpected. Caustic injuries

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Abstract Text A 21-year-old male with history of hemorrhoidal disease was hospitalized for acute onset bloody diarrhea. Patient was in excellent clinical condition. No marked findings on physical examination besides a positive (blood) digital rectal examination. Patient refused using any medication. Flexible sigmoidoscopy revealed diffuse marked edema, erythema, absent vascular pattern and superficial erosions of the mucosa up to the rectosigmoid junction with completely normal mucosa above this. Biopsies were obtained on suspicion of a Mayo 2 ulcerative colitis. However, after further inquiry patient divulged pouring hydrogen peroxide per rectal as ''a cleaning aid''. Following psychiatric evaluation, patient was managed conservatively. Caustic injury of the rectum is a rare event which can develop into a life – threatening condition. High suspicion index and good medical history in ''atypical'' cases can assist significantly in the diagnosis. [1–4]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP150V Esophageal stent placement after pyriform sinus perforation during ERCP and subsequent ERCP through the esophageal stent

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Abstract Text A 92-year-old patient was admitted with choledocholithiasis, ERCP was performed under general anesthesia. During the introduction of the duodenoscope, it was observed that the duodenoscope had difficulty passing at 25 cm from the mouth with an image that did not correspond to esophageal mucosa.

The ultraslim gastroscope confirmed pyriform sinus perforation and submucosal dissection of the esophageal wall. A self-expandable metal stent of 18x120mm, whose proximal end was lodged in the hypopharynx was inserted. The patient remained intubated and was admitted to the ICU. After 48h, the endoscopy was repeated, completing the ERCP through the esophageal stent, removing stones from CBD. On withdrawal, the esophageal stent was removed, with closure of the wall defect.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/54172fb7-c466-44ea-a66c-1e7a2263e67e/Uploads/13821_Perforacio%CC%81n_seno%20piriforme%20CONGRESO.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP151V Patient-tailored stepwise approach is optimal in rapidly progressing duodenal infiltrating disease

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DOI 10.1055/s-0044-1783440

Abstract Text We attempted biliary stenting through ERCP in a 60-year-old male with jaundice due to pancreatic head adenocarcinoma, hepatic metastases, and peritoneal carcinomatosis. Due to papillary infiltration, bile duct cannulation failed so we converted to same-session EUS-BD through choledochoduodenostomy by using a 6 Fr cystotome and a 60x10 mm partially covered biliary metal stent. Initial outcome was favorable but after four weeks, duodenal obstructive symptoms appeared and endoscopic examination revealed an impassable DI-DII junction with biliary stent reflux. Due to large-volume ascites, we opted for an 80x24 mm enteral stent that alleviated symptoms and prevented alimentary impaction of the biliary stent. This case illustrates early dysfunction of EUS-guided entero-biliary anastomosis and potential use of standard stenting in the case of rapidly progressive infiltrating disease.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/c19ae893-922d-43f9-9ada-0875289e1c6c/Uploads/13821_ESGE_Days%20abstract%20video.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP152 Long-term results of the endoscopic resection of appendiceal lesions

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Aims To determine the long-term efficacy and safety (minimum follow-up of 12 months) of endoscopic resection of appendiceal lesions.

Methods Retrospective analysis of the endoscopic resection of lesions with appendiceal involvement performed in three centers in Catalonia between January 2016 and July 2022, including those with a minimum follow-up of 12 months. The technical success rate (complete macroscopic resection), recurrence rate, and short- and long-term complications were evaluated. The intra-appendicular extension was described as superficial (visible appendiceal margin) or deep (if it was not possible to determine the appendiceal margin of the lesion before resection) and the circumferential extension was described according to the affected percentage. [1–5]

Results 42 lesions with appendiceal involvement were treated, and 33 with a follow-up > 12 months were analyzed. There were 13 lesions with deep intra-appendicular involvement and 20 with superficial appendiceal involvement (25 with a circumferential involvement ≥ 50 %), median follow-up of 21 months. The median size of the lesions was 20 mm (IQR 7-60), and 9 (27.2 %) had previous manipulation. Underwater endoscopic mucosal resection (UEMR) was performed in 94 % of the lesions (42.4 % by Underwater cap-suction pseudopolyp formation, CAP-UEMR) with a technical success of 97.1 % (42 % en bloc and 58 % piecemeal). A single case of superficial submucosal invasion (pT1a) was observed, without recurrence during follow-up. Only one case was referred to surgery (2017) to ensure complete resection due to suspected deep invasion (histology showed high-grade dysplasia). There were 2 intraprocedural bleeding and 1 delayed bleeding, all managed endoscopically. No perforation or appendicitis occurred at any time. Three recurrences were detected in long-term follow-up (2 lesions with deep intra-appendicular extension), all treated endoscopically.

Conclusions The endoscopic management of lesions with appendiceal involvement is effective and safe after a minimum follow-up of 12 months, being an alternative to surgery.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP153 Ischemic colitis stricture hiding a colonic neoplasia: a peculiar case report

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Abstract Text We collected radiological, endoscopic, pathological findings from a 72 years old male with vascular and thrombotic comorbidities, referred for abdominal pain in sub-obstruction without bleeding. Labs showed inflammation, no anaemia. Computed Tomography demonstrated a large bowel concentric stricture, without enhancement or enlarged lymphnodes. Colonoscopy showed ulcers and impassable stenosis in sigma (histology consistent with ischemic colitis). The patient underwent balloon dilatations and a substenosis in descending colon was found. Rectum-sigma resection with ileostomy was than performed. Histology demonstrated a moderately differentiated ulcerated adenocarcinoma of rectum-sigma with distal ischemic colitis (IIIB stage). The latest ileocolonoscopy showed an ileo-cecal stenosis and fragile ileal mucosa consistent with ischemia. [1–15]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP154V EUS-guided choledochoduodenostomy for malignant distal biliary obstruction palliation after dysfunctional cholecystogastrostomy

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DOI 10.1055/s-0044-1783443

Abstract Text A 74-year-old female underwent EUS-guided cholecystogastrostomy using a lumen apposing metal stent for distal biliary obstruction secondary to unresectable pancreatic cancer. After five months she was admitted for acute cholangitis. Computed tomography scan showed obstruction of the cholecystogastric fistula. Endoscopic repermeabilization of the cholecystoenteric fistula and gallbladder cleansing was performed. Subsequently, we attempted to complete the biliary drainage by transcystic rendezvous ERCP, as well as EUS-rendezvous-assisted ERCP, which were both unsuccessful. So, we performed an EUS-CDS. At ten months of follow-up, she is on palliative chemotherapy.

EUS-CDS was effective in the management of malignant distal biliary obstruction after dysfunctional cholecystogastrostomy.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/8c987f3b-2e26-495b-875c-8963cb480e80/Uploads/13821_ESGE_EUS_CDS_rescue_failed_EUS_GBD.mp4

Conflicts of interest Carlos Chavarría has received honoraria as speaker from Boston Scientific. The rest of authors disclosed no financial relationship.

eP155 Trainee involvement does not affect quality in colonoscopy: single-center experience

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Aims Trainees routinely participate in colonoscopy procedures in everyday clinical practise. Nevertheless, there is not enough data to assess the effect of their involvement on quality of colonoscopy. We conducted a single centre retrospective study in order to assess if involvement of trainees affect the quality in colonoscopy.

Methods Quality indicators have been assessed in three groups of procedures, each consisting of 150 colonoscopies. Group I included colonoscopies performed by two experienced endoscopists. Group II included colonoscopies involving experienced trainee (already conducted ≥ 150 colonoscopies). Group III included colonoscopies involving trainees in initial phase of training. Hospital database has been searched in order to extract patient and procedure-related data. All the procedures were conducted in period 01.01.2022-01.06.2023. Polyp detection rate (PDR), adenoma detection rate (ADR), advanced adenoma detection rate (AADR), cecalintubation rate (CIR), incidence of perforations, polyps per colonoscopy (PPC) and adenomas per colonoscopy (APC) have been calculated and compared between the groups.

Results There was no significant difference in demographics, indications for colonoscopy or level of bowel preparation between the groups, (Table 1). According to quality indicators, there was no difference in quality of colonoscopiesbetween the groups (Table 2). Highest ADR of 33.33 % was observed in Group III, followed by 28.67 % in Group II and 25.33 % in Group I (p = 0.088). Highest AADR of 18.00 % was observed in Group III, followed by 17.33 % in Group II and 14.67 % in Group I (p = 0.715). Group III was associated with highest PDR of 44.67 %, followed by 40.67 % in group II and 37.33 in Group I (p = 0.433) CIR was 100 % in Group II, and 99.33 % in Groups I and III (p = 0.605). No perforations have been noted.

Conclusions Involvement of trainees did not negatively affect the quality of colonoscopy. Furthermore, we report higher ADR and AADR in procedures involving trainees, although no statistical significance was observed.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP156V Endoscopic treatment for adenocarcinoma in giant rectal lesion

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DOI 10.1055/s-0044-1783445

Abstract Text A 79-year-old male underwent total colonoscopy, revealing a 70 mm Paris 0-IIa + Is laterally spreading tumor-granular nodular mixed type in the rectum (LST-G-M), with two dominant nodules (the largest with 15 mm), JNET 2B. The patient underwent endoscopic submucosal dissection.

Histopathology of the specimen identified a 70x50 mm lesion, with tubular adenoma with low to high grade dysplasia. It included a moderately differentiated invasive intestinal-type adenocarcinoma, with superficial submucosa invasion (sm1) with grade 1 budding. There was an en bloc R0 resection. No lymphovascular invasion was observed. The patient remains asymptomatic and no stenosis was identified four months later [1–2].

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/7a8e9461-c613-4da3-a901-a7184c28df25/Uploads/13821_ESD_ESGE.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP157V Full-thickness endoscopic resection of gastric stromal tumor: a step into the future

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DOI 10.1055/s-0044-1783446

Abstract Text A 63-year-old male patient undergoing pre-renal transplant evaluation underwent upper gastrointestinal endoscopy. The procedure identified a 14x10mm antral heterogeneous hypoechoic subepithelial lesion of the forth gastric wall layer.
Following transplant center requirements, an exposed non-tunnelled endoscopic full-thickness resection was performed. The incision was closed with multiple through-the-scope clips. Broad-spectrum antibiotics were administered, and the patient remained asymptomatic during a five-day hospital stay. The histology showed a low-grade GIST with no mitosis or necrosis. Partial smooth muscle tissue was observed at the lesion periphery. [1–2]
Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/c54bab38-1de0-4097-9537-d1253550351f/Uploads/13821_GIST_ESGE.mp4
Conflicts of interest Authors do not have any conflict of interest to disclose.
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eP158 Evaluation of next-generation sequencing (NGS) for the diagnosis of genomic abnormalities in pancreatic cyst fluid: preliminary results of a prospective, multicentre study

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DOI 10.1055/s-0044-1783447

Aims Next-generation sequencing (NGS) appears to be a useful adjunct for determining the type and risk of degeneration of pancreatic cysts. The aim of this study was to evaluate, prospectively in "real life», the feasibility and performance of NGS performed on pancreatic cyst fluid.
Methods The DNA extraction technique and the performance of a panel of 91 genes were first validated by comparing the genomic abnormalities present in pancreatic cyst fluid with those present in histological samples from surgical patients. DNA extraction and NGS were then performed on pancreatic cyst fluids collected by EUS. The samples were processed at Alphabio and Mercury: nucleic acid extraction, high-throughput sequencing (NGS), computer analysis and statistics. The sequencing technique chosen was HaloPlexHS (Agilent). NGS results were correlated with EUS, MRI, pathology and patient follow-up. Patients were followed for 5 years (Clinic alTrial.gov dat abase N ° CT Cyst Gen: NCT 03305146).
Results From December 2016 to October 2017, of the 20 patients of surgical pancreatic cystic lesions: NGS was concordant for 18 patients (90 %). For the 2 non-matching patients, the cystic fluid sampled did not correspond to the degenerated cyst. From January 2019 to August 2021, out of 69 patients aged 67.7 (+ /-11.4) years, prospectively included, DNA extraction was only possible for 54 patients. This low rate is related to DNA degradation due to inadequate packaging. These patients presented with a main duct IPMN (n = 1), a secondary duct IPMN (n = 2 2), a mix IPMN (n = 5), a mucinous cystadenoma (n = 1 1), a serous cystadenoma (n = 10), a cystic NET (n = 3), and a simple pancreatic cyst (n = 2). The mean size of the cysts removed was 32 (12-80) mm. Follow-up time was 28 (6-96) months, and one patient underwent surgery because of worrisome features. NGS showed genomic abnormalities in 20/54 patients. Based on the patients operated (n = 21), KRAS/GNAS mutations had a sensitivity and specificity for the diagnosis of mucinous cysts (IPMN and mucinous cystadenoma) of 91 % and 86 % respectively. TP53 and SMAD4 mutations, associated with KRAS/GNAS mutations, had a sensitivity and specificity of 82 % and 88 % respectively for the diagnosis of degenerated cysts.
Conclusions Genomic analysis (NGS) of pancreatic cystic fluid sampled by EUS appears to be possible and effective, but in 1/3 of patients no genetic abnormality was detected. These results are in line with the literature.
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP159 Endoscopic Submucosal Dissection of esophageal, gastric and colorectal tumors: experience at University of Campinas/Gastrocentro – Brazil, between the years 2008 to 2023

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DOI 10.1055/s-0044-1783448

Aims To describe the experience of a tertiary center for endoscopic treatment of early gastrointestinal tumors EGIT using the Endoscopic Submucosal Dissection (ESD) technique.
Methods A retrospective study that evaluate all patients with esophageal, gastric and colorectal early tumors submitted to ESD from 2008 to 2023 in Gastrocentro. Indication criteria for ESD were based on the Guidelines of the Japanese Society and the European Society.
Results 139 patients underwent ESD: 11 esophageal, 65 gastric and 63 colonic. In relation to esophageal tumors: mean age of patients was 58 (45-71) years, 90 % were male; average size of the tumor were 30.5 (20-40)mm, 10 were squamous cell carcinomas and 1 adenocarcinoma (ACA). The mean procedure time was 114(60-160)min, 10 were en bloc resections with free deep resection margins. In the overall number of 11 tumors ,2 of them had lateral margin invasion. Cure rate: 54,5 %. Complication rate: 2 cases (18,2 %) of perforation successfully treated endoscopically. In the group of 65 gastric tumors: mean age was 66(53-88) years; 57.5 % male; mean size of the tumors were 32 (15-60) mm, 37 were pre-diagnosed as ACA (35 of them confirmed post-resection) and 28 as adenomas (20 of them confirmed post-resection; and the other 8 were ACA). The mean procedure time was 114 (60-480)min and 95,2 % were en bloc resections. All cases had free deep resection margins, 2 with lateral focal involvement and 3 with vascular invasion. Among the ACA: 21 intramucosal (m1 = 6; m2 = 6; m3 = 9), 14 submucosal invasion (Sm1 = 12; Sm2 = 2). In 1 case, there was recurrence 3 months after resection and the patient underwent gastrectomy. Cure rate: 90 %. Complication rate: 7,7 % (3 perforation, 2 late bleeding). Regarding colorectal tumors: mean age was 58,6(34-85) years, 57.1 % were female; mean lesion size was 38,6(20-120)mm, 41 (65 %) of them classi-

fied as granular laterally-spreading tumor (LST-G) and 22 as non-granular (LST-NG). Mean procedure time was 149 (60-420)min. Histological diagnosis: 45 adenomas: 28 high grade dysplasia (HGD) and 17 low grade dysplasia (LGD); 15 ACA: mucosal invasion 14 (m1 = 4; m2 = 5; m3 = 5) and one with submucosal invasion (Sm2); 3 serrated LGD. Deep margins were all free and 3 cases had lateral margin compromised. Among the LST-G 45: 24 HGD, 11 ACA and 10 LGD. In relation to the LST-NG 13: 5 ACA, 5 HGD and 3 LGD Cure rate: 98 %. Complication rate: 12,7 % (2 minor bleedings and 6 perforations, treated with conservative measures with good results).

Conclusions Endoscopic Submucosal Dissection proved to be a safe, effective method, curative in gastric and colorectal tumors, with few complications.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP160 Endoscopic treatment with electric scalpel incision and dilatation in esophageal stenosing membrane for Plummer-Vinson syndrome

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DOI 10.1055/s-0044-1783449

Abstract Text Plummer-Vinson Syndrome (PVS) is characterized by dysphagia, iron-deficiency anemia, and esophageal membranes on the anterior esophageal wall.

A 50-year-old woman underwent gastroscopy, detecting a fibrotic esophageal stenosis 15 cm from the incisors that could not be passed. Barium esophagram confirmed a short anterior stricture in the cervical esophagus. Another endoscopy was performed where an incision was made in the stenotic membrane using an IT nano-scalpel. After advancing the endoscope, a second membrane was observed, it was dilated with a 12.8 mm Savary bougie. The patient improved clinically.

Endoscopic treatment by electric scalpel incision, balloon dilation or Savary-Gilliard bougies is a useful technique for managing esophageal membranes in PVS.

Conflicts of interest Hugo Uchima is consultant of Lumendi, collaborates with ERBE Spain, Olympus Iberia, Izasa, and has received congress inscription from Casen-Recordati.

eP161 Relevance of digestive investigations in the etiological diagnosis of adult iron deficiency anemia

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DOI 10.1055/s-0044-1783450

Aims Iron deficiency anemia (IDA) is a worldwide public health problem with multiple causes. The discovery of anemia must therefore lead to a thorough etiological investigation. The main objective of this study is to establish the value of digestive investigations in the etiological diagnosis of IDA in adult subjects.

Methods We conducted a monocentric retrospective study including patients managed in a gastroenterology department for exploration of IDA. Inclusion criteria were : Age > 18 years, hemoglobin (Hb) < 13g/dL in men and < 12 g/dL in women, associated with martial deficiency (ferritinemia level < 30 µg/L in men and < 20 µg/L in women). Patients with known digestive pathology or recent gastrointestinal bleeding were not included.

Results We included 236 patients, with 53.4 % being women. Among the 126 women, a predominance of postmenopausal women was noted (60.9 %). The mean age of the study population was 57 ± 18.8 years. Patients over 65 years old represented 39 % of the series. Anemic syndrome was present in more than three-quarters of the population (75.8 %), followed by a decline in general health (39.8 %). The most frequently reported digestive symptoms were epigastric pain (29.2 %), constipation (19.9 %), and abdominal bloating (13.1 %). The mean hemoglobin level was 7.32 ± 1.9 g/dL. Esophagogastroduodenoscopy (EGD) was performed in 231 patients (97.9 %). The most common findings were congestive gastropathy (23.8 %), uncomplicated hiatal hernia (11.7 %), and nodular gastritis (9.1 %). Gastric tumors were found in 6 patients (2.7 %), and EGD was normal in 21 patients (9.1 %). Colonoscopy was conducted in 187 patients (79.2 %). Colonic diverticulosis was the most frequently encountered condition (12.3 %), followed by rectocolonic polyps (10.2 %). Four cases of colorectal cancer (2.1 %) were observed, one secondary to familial adenomatous polyposis. Colonoscopy was normal in 136 patients (72.7 %). Enteroclysis was performed in 127 patients (53.8 %). Ileal thickening was observed in 2 patients (1.6 %), and one patient had a small bowel tumor. Furthermore, enteroclysis was normal in 124 patients (97.6 %). Overall, most digestive investigations were inconclusive (57.2 %). The most frequently identified etiology was Helicobacter pylori gastritis (16.5 %), followed by duodenal ulcer (7.6 %) and gastric ulcer (7.2 %) (Table 1 resumes all etiologies). In univariate analysis, a significant association was noted between male gender and the presence of an anemic syndrome with conclusive digestive investigations (p = 0.038 and 0.016, respectively). However, no significant associations were found between epidemiological, clinical, and biological profiles and identified neoplastic causes.

Conclusions Iron-deficiency anemia is very common among adults. Routine upper and lower endoscopy in young women may be excessive without gynecological assessments. Capsule endoscopy is valuable in the elderly with negative conventional endoscopy findings but may be less cost-effective and lead to unnecessary procedures in younger individuals, especially females.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP162 Managment of ERCP-related perforations a single center expirience

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DOI 10.1055/s-0044-1783451

Aims We conducted a single centre retrospective study in order to assess the incidence of ERCP-related perforations, management approaches and clinical outcomes.

Methods Electronic hospital database has been searched in order to identify all the patients who developed ERCP-related perforations in period 01.10.2018-30.06.2023. Perforations have been classified according to Stapfer classification. Conservative management considered frequent abdominal examination, monitoring of vital signs and white blood cell count, complete bowel rest, nasogastric tube, intravenous fluids and antibiotics. Endoscopic management considered bilary stent placement and/or closing observed defects with clips [1].

Results We recorded 8 (1.29 %) cases of ERCP related perforations out of 619 procedures conducted. We observed 6 (75 %) Stapfer type II and 2 (25 %) type IV perforations. In all but one patient (87.5 %) indication for ERCP were bile duct stones. Seven patients (87.5 %) were subjected to sphincterotomy (87.5 %), 3 (37.5 %) to "pre-cut". All but one patient were treated conservatively (87.5 %), with two of them in which type II perforations were recognized intraprocedural receiving also endoscopic treatment with stent placement. One patient with type II perforation was operated on the day of ERCP, suturing of duodenum followed by duodenal exclusion was applied. Management was successful in all the patients with mean hospitalization time of 16.6 ± 4.78 days.

Conclusions Conservative and endoscopic management appears to be associated with good outcome in Stapfer type II perforations.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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[1] Plećić N, Malenković A, Begović A et al. Managment of ERCP related perforations a single center expirience.

eP163 Prevalance, endosonographic, cytological and histological features of secondary tumors of the Pancreas: a retrospective analysis of e from two care centers

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DOI 10.1055/s-0044-1783452

Aims Pancreatic metastases are rare neoplastic lesions and data on metastatic pancreatic tumors diagnosed by fine needle aspiration (FNA) or fine needle biopsy (FNB) are limited. We report a two centres experience of FNA/FNB of secondary pancreatic tumors. Aim of this study is identify which neoplasms may lead to a higher risk of developing pancreatic metastases and to define the prevalence of this condition in pancreas endoscopic ultrasound examinations with cytological and histological lesion sampling (FNA-FNB).

Methods This is a retrospective multicenter observational study, including patients who underwent pancreas and biliary tract endoscopic ultrasound examinations at the digestive endoscopy centers of ASST Spedali Civili in Brescia and ASST Sette Laghi in Varese. Medical records were retrospective searched for pancreatic FNA/FNB that showed metastatic disease. Pathological features and EUS characteristics of the lesions were recorded.

Results From September 2010 to September 2023, out of a total of 773 biopsies performed, a total of 39 (5 %) patients (17 females and 22 males, average age of 67,6 years, 95 % C.I. 64,4 – 70,8) with histologically confirmed pancreatic metastases were found.

Among primary tumors, the most frequent was clear cell renal carcinoma, with 21 cases, (14 males). Other primary tumors found were colon cancer (5), lung cancer (4), breast cancer (4), melanoma (3), ovarian cancer (2) and lymphoma Non-Hodgkin B (1). The average size of the metastatic lesions in their greatest dimension was 5 cm (median 18mm, I.Q. range 10mm – 27mm). The majority of the tumors were unifocal in 31 cases (79,5 %). The lesions were hypoechoic in 29 cases (74,3 %), hypervascular in 36 cases (92,3 %).

Conclusions Despite the inclusion of only two centers, the case series is significant, comparable to almost all studies in the literature. In agreement with prior series, the most common metastasis to the pancreas was renal cell carcinoma and a variety of other primary malignancies were also found. Pancreatic metastases are a possible event in the natural history of solid tumors and EUS-guided fine needle biopsy/aspiration may implement the differential diagnosis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP164 Validation of an Easy and New Low-Cost EUS Ex-vivo Diagnostic and Therapeutic Training model

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Aims Competency in diagnostic procedures for endoscopic ultrasound (EUS) requires an average of 250 procedures, according to international endoscopy societies (ASGE and ESGE), while therapeutic procedures require a more sophisticated set of skills that can only be achieved in special programs. However, limited resources can lead to inadequate training opportunities and a shortage of skilled EUS practitioners. To meet the increasing demand for skilled EUS practitioners, the state of the art of training in EUS must evolve to ensure proficiency in this specialized technique.

The goal is to present a low-cost, functional, and easy-to-create ex-vivo training model for diagnostic and therapeutic EUS procedures that has been validated by international experts and beginner endoscopists.

Methods The model was validated through an intensive surgical endoscopy course. Twenty beginner participants and four international experts tested an ex-vivo EUS training model using a porcine block, including the esophagus, stomach, heart, liver, kidneys, spleen, pancreas, and initial jejunum (40 cm). The task was to identify different anatomical landmarks and simulated solid and cystic lesions using the modified EUS and ERCP Skills Assessment Tool "TEESAT" form for evaluation of the skills. To emulate solid lesions, we used bowel loops attached to the block with olives, grounded beef, and cherry tomatoes inside. For cystic lesions, the bowels were filled with water and milk. The block and lesions were fixed and remained under water in a 45-liter plastic box to improve the quality of the echogenicity of the image. Finally, the satisfaction of the users was evaluated with a 7-item survey focused on the usefulness and the friendly user experience of the model on a scale from 1 to 5.

Results After a 2-day session, 18 surgeons and 2 gastroenterologists from 6 countries participated in evaluating the model, with a total satisfaction score of 4.2 out of 5. All participants (100 %) detected simulated solid and cystic lesions in the model. With the instructions of an expert supervisor, 11 performed fine needle aspiration (FNA), and 9 performed fine needle biopsy (FNB). After the evaluation with the modified TEESAT, 19 were assessed as novices and 1 as a beginner. Finally, we recorded and registered the high-quality ultrasound images from the model to compare them with real-life scenarios.

Conclusions The model allowed trainees to initiate EUS and practice image acquisition and interpretation skills with objective evaluation tools. They learned to identify anatomical landmarks and differentiate between normal and abnormal structures using simulated collections and solid tumors. The model also eliminates the risks associated with practicing on live patients, providing an opportunity for instructors to closely monitor and guide trainees, ensuring they follow best practices and minimize procedural risks. [1–5]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP165 First experiences of a novel large bore resection device (Endorotor 6.0) used in the endoscopic treatment of walled-off pancreatic necrosis

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DOI 10.1055/s-0044-1783454

Aims To assess the efficacy, practicality and safety of the EndoRotor 6.0 device in the endoscopic treatment of WOPN (walled-off pancreatic necrosis).

Methods In this retrospective case series, we reviewed data from four patients who underwent endoscopic necrosectomy (EN) between august 2023 and november 2023. All procedures were performed under general anesthesia, after prior placement of a LAMS (HotAxios 10 x 20 mm, Boston Scientific) at least 1 week prior to minimise the risk of stent migration. All necrosectomies were performed by two endoscopists (MS, EM) with no prior experience with the device. The EndoRotor 6.0 (NecroMax 6.0, Interscope Medical, USA) is a large bore mechanical endoscopic resection system with a motorized, rotating cutting tool which performs tissue resection at 1000 – 1700 RPM. The resect-

ed tissue is aspirated from the resection site as it is cut by the rotating inner cannula, and collected in the tissue collection trap. The cutting tool and the suction are controlled by the endoscopist using two separate foot pedals. It has an outer diameter of 6 mm, and can be used by an endoscope with 6 mm working channel (Olympus GIF-XTQ160 gastroscope, Olympus Corp., Japan) or using an adapter (catheter guide adapter) which is attached to the distal end of the endoscope, while the catheter is taped to the endoscope shaft. The catheter can be rotated 360° using an external handle to align the rotating blade to the necrosis. The channel of the catheter can be irrigated in an external fashion to avoid or resolve impaction of the necrosis.

Results In total, 11 EN sessions with the EndoRotor device were performed in 4 patients with a median age of 57 years old [IQR 9,5]. The etiology of the necrotising pancreatitis consisted of biliary pancreatitis (n = 2), post-ERCP pancreatitis (n = 1) and traumatic duct disruption with associated pancreatitis (n = 1). The median laterolateral diameter of the collection prior to the first EN was 115 mm [93 – 136]. The median procedure time was 78 minutes [50 – 108]. In three patients (75 %), the collection had fully resolved on CT-scan two weeks after the last EN. The average amount of procedures needed to achieve a total necrosectomy was 1,25. In one patient, the collection had been reduced from 140 mm to 82 mm after which EN was halted due to significant clinical improvement. Clinical improvement was achieved in all patients (100 %). We performed 10 procedures using Olympus GIF-XTQ160 gastroscope with the catheter through the channel. In 1 procedure, we attached the EndoRotor to the end of a gastroscope (Fujifilm EG-720R) using the catheter adapter. In one necrosectomy (9,1 %), a technical failure of the rotating blades ensued due to aspirated sutures from the WOPN. The procedure could be completed by replacing the catheter. No procedure-related adverse events occurred.

Conclusions Our initial experience with the EndoRotor suggest that this device is effective and can be safely used for endoscopic necrosectomy of infected walled-off pancreatic necrosis. More data are needed to assess the efficacy, safety and cost-effectiveness of this treatment.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP166V Flexible Endoscopic Septo-Myotomy of a Pharyngesophageal Diverticulum after Anterior Cervical Discectomy and Fusion

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DOI 10.1055/s-0044-1783455

Abstract Text A 77-year-old female developed severe dysphagia after Anterior Cervical Discectomy and Fusion (ACDF) [1]. Esophagogastroduodenoscopy and CT scan revealed a 3x2cm right posterior Pharyngoesophageal Diverticulum (PED) originating at the hardware site.

PED septo-myotomy using an L-shaped knife, was alternated with progressive Savary bougie dilations (up to 15mm). Submucosal injection was performed to guide myotomy, with poor results due to significant fibrosis. Finally, through-the-scope clips were placed at the base of the myotomy.

At 6-month follow-up, she reported no dysphagia and was maintaining a solid food diet.

Flexible endoscopic septo-myotomy could represent a feasible, effective, and safe treatment for PED after ACDF.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/4130b2ac-99fa-409d-806b-2fe956723a20/Uploads/13821_PED_ESGE(1).mp4

Conflicts of interest S Danese has served as a speaker, consultant and advisory board member for Schering-Plough, AbbVie, Actelion, Alphawasserman, AstraZeneca, Cellerix, Cosmo Pharmaceuticals, Ferring, Genentech, Grunenthal, Johnson and Johnson, Millenium Takeda, MSD, Nikkiso Europe GmbH, Novo Nordisk, Nycomed, Pfizer, Pharmacosmos, UCB Pharma and Vifor.

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eP167 Colorectal explosions: a systematic review on causes and risk factors

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Aims Colorectal explosion (CE) is an exceptional and potentially fatal complication of colorectal endoscopy or surgery. For happening, the simultaneous presence of high concentrations of oxygen and/or methane and an igniter is required. We conducted a systematic review of the literature to identify risk factors for CE and evidence-based recommendations to prevent this complication.

Methods We searched for "explosion" or "blast" and "colonoscopy" or "colon" or "rectum" in Embase, MEDLINE, and Cochrane databases up to 15 June 2023. Only the studies that reported at least one case of CE were included. Results are displayed according to PRISMA guidelines. Papers were ruled out if CARE criteria and explanations on patient selection, ascertainment, causality, and reporting were not respected. This systematic review was pre-registered on the PROSPERO database (CRD42023455049).

Results Out of 52 results screened by two independent researchers, 28 original studies (25 case reports and 3 case series) were selected. Thirty-two cases of CE were described: 13 and 19 cases were related to surgical and endoscopic procedures (the least including five proctoscopies). Death was reported in 4 (12.5 %) patients. Despite the worldwide increase in invasive diagnostic and interventional colorectal procedures, the absolute incidence of CE remained extremely low (12 cases from 1952 to 1987, 14 cases from 1988 to 2013, 2 cases from 2013 and 2023) with a remarkable reduction during the last decade. The most frequent bowel preparations were enemas (8 cases, 25 %, including four phosphate enemas, one saline enema, one sorbitol enema, two non-specified enemas), mannitol + /- saline (3 cases, 9.4 %) and PEG + /- sorbitol (3 cases, 9.4 %). In 10 cases (31.2 %), the type of BP was not reported. Bowel preparation quality was good, fair, poor, and not available in 9 (28.1 %), 1 (3.1 %), 1 (3.1 %), and 17 (53.1 %) cases, respectively. The commonest devices used before CE were electric scalpels in 9 cases (32.1 %), argon plasma coagulators in 8 cases (28.6 %), and cautery electrodes in 5 cases (17.9 %).

Conclusions CE is a highly exceptional event with a decreasing incidence in recent decades. Adequate bowel preparation was described in less than one-third of CE. No clear association was identified between CE, bowel preparation regimen, or endoscopic/surgical device. In the era of modern endoscopy, the systematic adoption of oral intestinal preparation together with endoscopic washing and insufflation manoeuvres seem effective preventive measure.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Endoscopy 2024; 56: S1–S503

eP168V Successful concomitant Esophageal PerOral Endoscopic Myotomy(E-POEM) for Hyper-contractile Esophagus and Gastric PerOral Endoscopic Myotomy(G-POEM) for refractory gastroparesis with significant short term efficacy

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DOI 10.1055/s-0044-1783457

Abstract Text 70-y-M, symptomatic 4-mo– nausea,vomiting,reflux,chest discomfort a/w meals, bloating;EGD(fasting > 14h)–mildly dilated&tortuous esophagus,normal LES,significant gastric food stasis;CECT-no obstruction;Gastric emptying study(GES)–24 % retention @4h,t1/2 129min;GCSI-31;HbA1C,TSH normal; No Opioid abuse/ surgery/ viral illness; PPI/prokinetics trial for 3-mo–persistent symptoms.Esophageal HRM–DCI-17,000mmHg.cm.s (high);Contrast swallow–corkscrewing;Sildenafil trial–worsened reflux.Co-occurrence & overlapping symptoms-hypercontractile esophagus with refractory gastroparesis -therapeutic challenge.Procedure:supine,CO2,GA;Concomitant G-POEM followed by E-POEM performed–G-POEM 80min,E-POEM 110min,no major AE; Oral diet -day2, discharge-day3; F/u@1-mo GCSI 2;EGD – no stasis;GES@3-mo–10 % retention@4h,t1/2 89min. Asymptomatic at 3-mo.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/49296da9-cdb0-48eb-bd05-584109c690c6/Uploads/13821_000574.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP169V Knife-assisted incision for restoring esophageal lumen after surgical exclusion

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DOI 10.1055/s-0044-1783458

Abstract Text A 41-year-old male developed an esophageal perforation after pneumatic dilatation for achalasia, requiring surgical repair of the laceration and esophageal exclusion with proximal staple line division. At four months follow-up he suffered severe dysphagia.

Endoscopy revealed no spontaneous recanalization at the site of exclusion. Dilatation with Savary bougies was performed followed by incision of fibrotic tissue and removal of protruding sutures, successfully restoring patency. At the 3-month follow-up, he reported being symptom-free from dysphagia.

To the best of our knowledge, this is the first case of endoscopic recanalization after surgical esophageal exclusion.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/4acebf45-a84e-4fd6-826e-8985ed3dce6c/Uploads/13821_exclusion_ESGE.mp4

Conflicts of interest S Danese has served as a speaker, consultant and advisory board member for Schering-Plough, AbbVie, Actelion, Alphawasserman, AstraZeneca, Cellerix, Cosmo Pharmaceuticals, Ferring, Genentech, Grunenthal, Johnson and Johnson, Millenium Takeda, MSD, Nikkiso Europe GmbH, Novo Nordisk, Nycomed, Pfizer, Pharmacosmos, UCB Pharma and Vifor.

eP170 Can we currently apply "Textbook Process" as a quality measure for colonoscopy outside structured screening programs?

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Aims Recently, the concept of "textbook process" (TP) has been proposed as a more comprehensive method of reporting the quality of colonoscopy [1]. We aimed to measure TP as a composite measure and by subcategories in our unit.

Methods We retrospectively collected data on screening, surveillance, and diagnostic colonoscopies from a tertiary hospital over three months. Data was extracted from the endoscopy reporting system (AmbalSoft InfoTech Pvt Ltd, India), confronted with histopathology results, and the individual patient files were reviewed. We computed the fulfillment rates for each of the 10 individual subcategories of the TP composite score.

Results We analyzed 213 colonoscopies (77 screening or surveillance procedures, 136 diagnostic colonoscopies) performed by 11 endoscopists. As a composite score, none of the colonoscopies met all 10 criteria. When evaluated based on subcategories, 206 had a clear indication (96.7 % (88.23-100 %)), 191 documented successful intubation of the cecum (89.7 % (66.66-100 %)), 153 had adequate bowel preparation (71.8 % (45.83-100 %)), and 26 explicitly reported the presence or absence of adverse reactions (12.2 % (0-29.16 %)). The median adenoma detection rate was 22.06 % (11.11 – 41.17 %) and correlated with the cecal intubation rate (r = -0.188, p = 0.006). Withdrawal time and patient comfort were not systematically recorded in the colonoscopy report and post-polypectomy follow-up recommendations were infrequently retrieved from subsequent visits. Re-admission at 14 days and 30-day mortality were not retrievable due to a lack of database connectivity to other hospitals within the public healthcare system.

Conclusions We found suboptimal performance measures [1, 2] and a need for upskilling in this study. In order to adhere to "textbook process" and outcomes for colonoscopy, updated standardized report forms and improved medical record access and interconnectivity are urgently required at local and system levels.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP171V Successful treatment of Candy Cane syndrome using a lumen-apposing metal stent

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Abstract Text We present the case of a 67-year-old man with a total gastrectomy, diagnosed of Candy Cane syndrome (SCC) by clinical and radiological criteria, who was successfully treated endoscopically. A nasoenteral tube was introduced into the efferent loop a few centimeters below the anastomosis. A linear echoendoscope was then introduced into the blind loop. Subsequently, saline solution was injected through the nasoenteral tube to distend the effer-

ent loop and a EUS-guided jejuno-jejunostomy was performed using a 15 x 10 mm Axios Stent. The patient presented immediate clinical improvement. Axios was removed 4 months later and the fistula has been patent until today, 3 months after removing the stent. SCC is a little-known entity, that could be underdiagnosed. Endoscopic management through EUS-guided jejunojejunostomy appears to be an effective and easy-to-use treatment. [1–2]

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/37540040-96f5-4510-974c-819adc41749c/Uploads/13821_Video_Candy_Cane_Def.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP172 Disorders with esophagogastric junction outflow obstruction: clinical, paraclinical, and outcome characteristics

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Aims The aims of this study were to describe the clinical, paraclinical, and outcome features of disorders with esophagogastric junction (EGJ) outflow obstruction (encompassing achalasia and EGJ outflow obstruction) and to identify predictive factors for response to different therapeutic modalities.

Methods We conducted a monocentric retrospective longitudinal study spanning four years [2018-2021] followed by a cross-sectional study to ensure clinical follow-up of patients through telephone calls along with a manometric follow up. We included all patients diagnosed with EGJ outflow obstruction, defined on HRM by an integrated relaxation pressure (IRP) ≥ 21 mmHg. We recorded clinical, endoscopic, radiological, and manometric data. To evaluate therapeutic response, we compared Eckardt scores and HRM before and after treatment. Therapeutic success was defined by a control Eckardt score ≤ 3.

Results Data from 87 patients with an average age of 48.9 years and a male-to-female ratio of 0.97 were collected. Dysphagia dominated the symptoms in 99 % of cases, followed by regurgitation in 87 %. The mean pre-therapeutic Eckardt score was 5.5 [0-12]. Esophagogastroduodenoscopy was normal in 48 % of cases, revealing a functional stenosis of the EGJ in 43 % and stasis in 27 %. Type I achalasia was found in 47 patients (54 %), type II in 29 cases (33 %), and EGJ outflow obstruction in 11 cases (13 %). No cases of type III achalasia were recorded. The average IRP and lower esophageal sphincter (LES) resting pressure were 31 mmHg and 50 mmHg, respectively. Approximately 52 % of patients had either a hypertonic or an impassable LES. Thirty-one percent of patients received no treatment. Most treated patients (77 %) underwent pneumatic dilation (PD) (average number of sessions 1.8), and 17 % were treated with Heller myotomy (HM). One patient was treated with peroral endoscopic myotomy (POEM). Therapeutic success was noted in 65 % of patients, with no clear superiority of HM over PD (p = 0.3). The variation between the initial and control Eckardt scores was statistically significant (**p < 0.001**). No correlation was found between the initial values of IRP and the resting pressure of the LES and therapeutic response. Control HRM was performed in 30 % of patients. We observed a decrease in the IRP in 70 % of patients, with 35 % having a post-treatment IRP ≤ 10. No significant association was found between a post-treatment LES resting pressure ≤ 10 mmHg and therapeutic success, as well as an IRP ≤ 10 mmHg. Predictive factors for therapeutic failure in our study were a high initial Eckardt score (**p = 0.03**), the presence of chest pain (**p = 0.04**), and the presence of severe dysphagia (**p = 0.02**).

Conclusions Our results indicate that therapeutic success was achieved in more than two-thirds of treated patients with no statistically significant difference between PD and HM. Only one patient was treated with POEM with a complete clinical response. Future controlled randomized studies comparing these three techniques are necessary to validate our results.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP173 The Future Of Digestive Health: Personalized Treatments Through Wearable Ai Technologies

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DOI 10.1055/s-0044-1783462

Aims This research examines the application of Artificial Intelligence in obtaining health information, with a particular emphasis on Siri, the intelligent assistant developed by Apple. The study involves contrasting Siri's answers to frequently asked questions related to gastroenterology on both the iPhone and iWatch. Given the growing importance of AI tools such as Siri, Alexa, Google Assistant, and Cortana in daily healthcare, the significance of comprehending the type of questions and the quality of the responses provided has become a crucial field of study.

Methods We employed Apple's AI software on the iPhone and iWatch to evaluate the reliability and trustworthiness of information about gastroenterology. The responses were rated by two independent reviewers using a Likert scale. The study focused on assessing the precision of the audio responses and the caliber of the sources backing each answer. Participants fluent in the native language of the device's interface took part in this study. Finally, a T-test was conducted to identify the key factors influencing the outcomes.

Results The study found that the iPhone delivered notably superior responses to the iWatch, offering more dependable references and images (95 % versus 91 %, P = 0.023, with a 95 % confidence interval). Nonetheless, regarding the trustworthiness of the information, there was no marked difference between the two devices (94 % for iPhone vs. 92 % for iWatch, p < 0.012).

Conclusions Artificial Intelligence continues to play a vital role in human advancement. Wearable technology has become an increasingly common means for accessing information. Yet, our research indicates a significant difference in the reliability of medical information obtained from wearable AI compared to

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP174 Acute upper gastrointestinal haemorrhage in adults: epidemiological, clinical, biological, aetiological and therapeutic aspects of a Moroccan series

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Aims The aim of our work is to study the various epidemiological, clinical, biological, aetiological and therapeutic aspects of acute upper gastrointestinal haemorrhage.

Methods Single-centre retrospective study conducted in a hepato-gastroenterology department at the IBN SINA University Hospital in Rabat over a period of 5 years. EOGD was performed in 314 patients admitted to the emergency department for acute upper or lower gastrointestinal haemorrhage with haemodynamic instability, with a Blatchford score greater than 1.

Results ADH accounted for 84.6 % of all indications for upper GI endoscopy in the emergency setting. The mean age was 57.7 years, ranging from 19 to 90 years, with a male predominance (sex ratio 1.3). Our patients had known chron-

ic liver disease in 18.7 % (n = 59) of cases, end-stage renal disease in 6 % (n = 19), underlying heart disease in 7.9 % (n = 25), chronic smoking in 2.8 % (n = 9) of cases, a history of known peptic ulcer disease in 4.7 % (n = 15) of cases, recent use of AINS in 1.9 % (n = 6) of cases, use of anticoagulants in 5.4 % (n = 17) of cases.On admission, 33 patients (10.5 %) were hemodynamically unstable. ADH was revealed by isolated melena in 37 % (n = 116) of cases, hematemesis and concomitant melena in 30 % (n = 94) of cases, isolated hematemesis in 23.8 % (n = 75) of cases and rectal bleeding with hemodynamic instability in 9.2 % (n = 29) of cases.Biological tests showed mild anemia in 7.3 % (n = 23), moderate anemia in 47 cases (15 %) and severe anemia in 17.8 % (n = 56) with transfusion requirements in 13.7 (n = 43) of cases.Digestive endoscopy performed within an average of 16 hours of admission was conclusive in 80.5 % (n = 253) of cases.The etiologies of ADH were dominated by peptic ulcers in 33.8 % (n = 106) of cases, including gastric localization in 43.4 % (n = 46) of cases and duodenal localization in 56.6 % (n = 60) of cases, ruptured esophageal varices in 26.4 % (n = 83) of cases, GOV in 0.9 % (n = 3) and PH gastroraphy in 3.8 % (n = 12). Severe esophagitis in 15 cases (4.7 %), of which grade D in 8, grade C in 3 and grade B in 4. Hemorrhagic tumor causes in 13 cases (4.1 %), of which a gastric process was in 9 cases, duodenal in 3 and esophageal in one. Angiodysplasia was found in 5 cases (1.6 %), hemorrhagic GIST, Plummer Vinson syndrome, Mallory-Weiss syndrome and esophageal candidiasis in a single case. EOGD returned normal in 61 cases (19.4 %).Treatment was essentially medical in 75 % of cases, and endoscopic treatment was performed in 77 cases (24.5 %) of patients, including esophageal variceal ligation in 55 cases (17.5 %), injection of biological glue for GOVs in 03 cases (0.9 %); injection of adrenaline alone in 05 cases (1.6 %) and placement of a hemostatic clip after adrenaline injection in 13 cases (4.1 %); emergency surgery was required in only one case.

Conclusions In this retrospective study, we confirmed that upper GI endoscopy helps identify the site of bleeding in most cases. Ulcer pathology and portal hypertension remain the main causes of HDH. The vital prognosis of patients can only be improved by rapid, appropriate multidisciplinary management, particularly in elderly subjects with co-morbidities.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP175 "Evaluating Ethnic Impact on Post-Bariatric Liver Cirrhosis Remission: Insights from Kaplan-Meier Analysis"

Authors R. M. Ram mohan[1], M. Joy[1], S. G. Magam[1], D. Natt[1], S. R. Magam[1], L. Pannikodu[1], J. Desai[1], P. Mustacchia[1]

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Aims Racial disparities significantly affect mortality rates in patients with ascites and liver cirrhosis. Studies indicate that minority groups, particularly African Americans and Hispanics, often exhibit higher mortality rates. This may be attributed to socioeconomic and genetic predispositions, late-stage diagnoses, and limited access to liver transplantation. Addressing these disparities is essential to improve survival outcomes, advocating for equitable healthcare access and early, accurate diagnosis across all racial and ethnic groups.

Methods In our study, we conducted a retrospective review of patients diagnosed with liver cirrhosis and ascites. We gathered extensive data that included insurance details, comorbidities, surgical procedures, colonoscopy and pathology reports, and fundamental patient characteristics using ICD and CPT codes for efficient classification. We then grouped the data according to gender and race. We implemented propensity score matching to allow a fair comparison of baseline characteristics. Kaplan Meier was used to determine mortality rates across different racial groups, and we employed the Odds ratio to pinpoint independent variables significantly affecting the outcomes of our study.

Results Between the years 2009 and 2022, our medical department admitted 629 patients diagnosed with ascites and liver cirrhosis of which 254 patients were female (40.3 %). Our patient cohort showcased racial diversity, with 24 % being African American, 46 % White, 16 % Asian, and 25 % Hispanic. Notably, Hispanic (25 %) faced mortality at an earlier stage compared to other racial groups (Breslow: 1.241, $p < 0.05$). Major contributors to mortality included Sepsis (OR: 3.25, $P < 0.01$) and Heart Failure (OR: 2.22, $P < 0.01$). Interestingly, race (OR: 2.15, $P < 0.05$) and lower levels of education (OR: 2.23, $P = 0.025$) emerged as unique risk factors impacting mortality within this cohort

Conclusions Our study corroborates existing research on racial disparities impacting mortality rates in ascites and liver cirrhosis patients, particularly the earlier mortality among Hispanics. We've identified race and lower education levels as unique risk factors, echoing the need for intervention in social determinants of health. Therefore, to improve survival outcomes, targeted efforts must prioritize equitable healthcare access, early diagnosis, and education, especially for minority groups. Implementing community-based education, enhanced screening, and policy changes can help address these systemic inequities.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP176 Investigating the Link: Racial and Ethnic Differences in Gastrointestinal Stromal Tumor Rates – Joint Point Regression Analysis

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Aims Gastrointestinal stromal tumors (GISTs) occur along the GI tract, from the esophagus to the anus, and occasionally in the omentum, mesentery, and peritoneum. They represent 1-2 % of primary GI cancers. Rates differ by ethnicity and race in the US, with higher prevalence among African Americans, Asian/Pacific Islanders, Whites, and American Indians. This study explores GIST incidence trends by location, ethnicity, and race in the US.

Methods Our study involved a retrospective analysis of GIST patients admitted to our hospital between 2009 and 2022. We collected data on comorbidities, insurance status, surgical procedures, colonoscopy reports, and baseline characteristics. Patients with GIST were classified based on sex, race, and tumor location. We utilized a direct method to calculate the expected number of gastric cancer cases in each specific group, using the standard population as a reference. Incidence trends over time were assessed using Joinpoint Regression, with the natural logarithm of annual standardized incidence rates as the dependent variable and the year (2009-2022) as the independent variable.

Results The study included a total of 259 patients diagnosed with GIST. Out of these, 101 or 38.9 % were female. The incidence rate of the disease showed an upward trend in Afro-American and White populations between 2009-2014 and 2015-2022, with an Annual Percentage Change in Incidence (APCC) of 1.1 (95 % Confidence Interval or CI: -0.3, 1.5) and 0.9 (95 % CI: 0.3, 1) respectively. On the contrary, a decrease in incidence was observed in the Asian population during the same periods, with an APCC of -1.9 (95 % CI: -2.1, -1.1). The incidence rates of GISTs in Afro-Americans and Whites paralleled each other according to the pairwise comparison test, whereas no such patterns were detected among the other groups.

Conclusions Our research revealed a rising trend in the occurrence of GIST in both Afro-American and White populations, while the incidence within the Asian populations demonstrated a declining pattern. Similar rates of GIST were observed in Afro-Americans and Whites, yet differences were apparent in the rest of the groups. This shift in GIST incidence could suggest a modification in underlying causes. To further investigate these patterns, more extensive studies are needed to focus on these cohorts.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP177V Unusual access for biliary cholangioscopy with lithotripsy: every cloud has a silver lining

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Abstract Text We present an unusual case, in which a "simple" clinical scenario such as cholangitis proved itself more complex than expected. Intuition and out-of-the-box use of advanced endoscopic devices were crucial in this situation. In detail, as you will see in the video, we were able to solve the case performing cholangioscopy through an unusual access to the biliary tract, which allowed us to drain the biliary tree and extract stones less invasively. The case demonstrates the high versatility of this device in the clinical practice.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/486662e4-2e2e-49a8-be3f-645c55322c85/Uploads/13821_fistola_v3%20-%20HD%201080p.mov

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP178 Myth vs. Reality: A Critical Review of Liver Cirrhosis Information Available on YouTube

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Aims The internet, particularly YouTube, is a popular health information source for many. However, studies suggest that patient information on YouTube is often of poor quality. This study aims to evaluate the content and quality of YouTube videos on Liver cirrhosis. With over a billion users, YouTube's widespread use doesn't guarantee quality, as videos, including those on liver cirrhosis, aren't subjected to an editorial process. This can lead to misinformation, potentially skewing users' understanding of their health conditions.

Methods We searched YouTube for liver cirrhosis videos using "liver cirrhosis" and "alcoholic hepatitis" as keywords. Videos were excluded if they weren't in English, weren't relevant, or lacked audio. We recorded video characteristics such as views, subscriptions, likes, dislikes, comments, and whether they were academic or private. Videos were then categorized as reliable or not based on the accuracy of their scientific information. We used DISCERN, the Global Quality Score (GQS), and the Patient Education Materials Assessment Tool (PEMAT) to assess overall video quality. The level of agreement between seven investigators on DISCERN, GQS, and PEMAT was calculated using intraclass correlation.

Results We reviewed 36 YouTube videos in the search results, of which 16 (44.4 %) were academic and 20 (55.5 %) were private. Academic videos received higher DISCERN scores than private ones (35 ± 14.5 vs. 26.64 ± 15.07, $p = 0.028$). The Global Quality Score was also higher for educational videos (4.1 vs. 3.2, $p < 0.01$), as was the PEMAT score (4.5 vs. 2.9, $p = 0.032$). Furthermore, academic videos were found to have a positive correlation with the number of likes (OR: 0.65, $P < 0.001$), subscribers (OR:0.78, $P < 0.0001$), and views (OR:1.12, $P < 0.001$).

Conclusions Our study shows that the quality of YouTube videos on liver cirrhosis varies widely. Videos from academic sources provided more accurate and high-quality information than private ones, reflected in higher DISCERN, Global Quality Score, and PEMAT ratings. This indicates a positive correlation between academic sources and the number of likes, subscribers, and views. The results underscore the importance of guiding patients toward academically sourced health information, thereby reducing the chance of misinformation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP179 Endoscopic ampullectomy: case report

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DOI 10.1055/s-0044-1783468

Aims Our work aimed to evaluate the efficacy and safety of endoscopic ampullectomy

Methods This was a monocentric retrospective study including all cases of endoscopic ampullectomy

Results Case 1: Mrs A.E, aged 50, was admitted for liver colic. On clinical examination, BMI of 30kg/m2. Abdominal ultrasound showed bi-ductal dilatation upstream of a hypoechoic image measuring 12/8 mm in the ampulla of Vater. A CP-MRI showed dilation of the VBIH, the VBP, and the Wirsung on a probable lesion of the ampulla of Vater measuring 9/10 mm. EUS showed CPP and CBD measuring 6 mm and 9 mm respectively, an ampullary mass measuring 11 x 9 mm hypo echogenic classified uT1, cytopunction performed returned negative; Endoscopic resection carried out without complications with insertion of a 5FR/5cm pancreatic stent and preventive injection of adrenaline serum; histological examination of the specimen showed a mixed neuroendocrine and well-differentiated adenocarcinoma, with muscularis propria involvement; the patient was referred for Whipple surgery and died 5 days post-surgery consequentely to pancreatic fistula and infection.

Case 2: The patient was M.E., aged 90, admitted for progressive cholestatic jaundice without remission, with deterioration in general condition (WHO 2) and weight loss of 23 %. The biochemical showed cholestatic with total bilirubin at 9.9 mg/dl, cytolysis (AST) at 4 * ULN, and CRP at 68. Imaging showed significant dilation of the CBD and of the main pancreatic duct, upstream of a circumferential tight stenosis of the bilio-pancreatic junction at the level of the ampulla of Vater, with discrete parietal enhancement. EUS showed bi-ductal dilatation upstream of a 17 * 10mm mass of the papilla respecting the duodenal muscularis without ductal invasion; the extension work-up was negative. Endoscopic ampullectomy was performed using a diathermic loop with the deployment of double biliary and pancreatic stents (10 fr/12cm and 7 fr/7cm respectively), with minor bleeding controlled by injection of adrenaline. Histopathological showed a well-differentiated adenocarcinoma infiltrating muscularis propria pT2 with healthy resection limit; upper endoscopy of follow-up showed a clean base of the papilla without tumor residual at the biopsies.

Case 3: Mrs AI. Z, 68 years old, cholecystectomy for 13 years, admitted for hepatic colic with cholestatic icterus, on the biological level presence of cholestasis, no cytolysis. A CP-MRI showed dilatation of the HBV and PBV to 12 mm upstream, presence of a 1 cm ampullary mass. EUS showed bi-ductal dilation upstream of a hypoechoic ampullary formation measuring 17 mm respecting the duodenal muscularis classified as uT1. Endoscopic ampullectomy using a diathermic snare, with the deployment of biliary and pancreatic stents. Histopathological showed an ampullary adenomyoma.

Conclusions Endoscopic ampullectomy is an effective first-line curative treatment for localized ampullomas, particularly when the resection is classified as R0. The main complications are GI and acute pancreatitis, which is reduced by the use of a short, thin pancreatic stent.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP180 Kaplan-Meier Insight: Understanding Readmission Patterns in Obesity and GIST Patients

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Aims Gastrointestinal stromal tumors (GISTs) are the most common type of mesenchymal tumors in the gastrointestinal tract, resulting from mutations and overexpression of tyrosine kinase receptors in the interstitial cells of Cajal. In the US, GIST incidence is about 5000 per million, with a median diagnosis age of 66-69. Imatinib transformed GIST treatment, complementing surgical resection, but disease progression is seen even after 2-3 years of therapy. This study examines how obesity affects the readmission rate in GIST patients, providing valuable insight for future therapeutic strategies.

Methods We examined the Nationwide Inpatient Sample database from 2019 to 2022, gathering data on 758 GIST patients undergoing Imatinib treatment and their hospital readmissions. Propensity score matching helped equalize baseline characteristics. Patients were then categorized into three groups according to their BMI: A [> 35] = 300 (39.5 %), B [30-34] = 230 (30.3 %), and C [25-29] = 228 (30.1 %). We used the Kaplan Meier curve and Log Rank Mantel-Cox test to compare the groups. Following this, we stratified the original dataset and employed the Hazard ratio to determine factors contributing to extended hospital stays.

Results The study encompassed 758 GIST patients. The median hospital stay duration was A = 12 ± 5 days, B = 5 ± 4 days, and C = 7 ± 2 days. A significant difference was noted among the three groups with the Log Rank Mantel-Cox test, p = 0.054. Factors that extended hospital stays included abnormalities in CAD (HR = 0.446, p < 0.01), liver disease (HR = 0.456, p = 0.04), and renal failure (HR = 0.516, p = 0.022). Patients with more than two chronic diseases had a notably more extended stay (HR = 0.546, p = 0.013) than those without comorbidities.

Conclusions Obesity in GIST patients can influence the duration of hospitalization during a 30-day readmission. Factors contributing to extended hospital stays should be considered when arranging bed capacity and budgeting for potential costs.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP181 Innovating Hepatology Care: Integrating Chatbots for Customized Treatment Strategies

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Aims Chatbots like ChatGPT and Google Bard have significantly impacted healthcare, particularly hepatology, enhancing liver disease diagnosis and treatment. These advanced solutions interpret ultrasound images, analyze samples, streamline administrative tasks, and aid in medical imaging and device automation. They have considerably improved hepatology disorder management by enabling personalized treatments and side-effect predictions. Integrating these AI tools provides patients with tailored treatment evaluations, promoting informed decision-making. However, the effectiveness of these chatbots still warrants further scrutiny.

Methods The study evaluated the precision of two prominent Chat Bots – Chat GPT and Google BARD – in addressing medical management queries. Both bots were tasked with a series of questions, and their responses were evaluated on a 1-10 Likert scale, with 1 indicating utmost accuracy. Two unbiased evaluators examined each bot's responses to ensure objective evaluation. The research aimed to provide insight into these chatbots' capabilities via a structured performance appraisal, focusing on accuracy and dependability. The dual-evaluator system and the Likert scale approach helped minimize possible bias, lending credibility to the findings.

Results Our research contrasted the effectiveness of Chat GPT and Google BARD in the realm of liver disease management. Chat GPT excelled, scoring 74 % in the accuracy of information compared to Google BARD's 49 % (p = 0.015) and 48 % vs.29 % in medical information reliability (p = 0.032). This study emphasizes the critical role of accuracy and dependability in developing liver disease-oriented chatbots. While Chat GPT displayed impressive performance, indicating its potential as a reliable tool, it also underscored the necessity for continued research and development in this field.

Conclusions This research revealed the relative strengths of Chat GPT and Google Bard in liver disease management, with Chat GPT outperforming in both accuracy and reliability. As AI technologies continue to permeate healthcare, ensuring their accuracy is crucial. While Chat GPT demonstrated promising potential as a reliable hepatology tool, it also highlighted the continuous need for research and development in this domain. The significant disparity in performance emphasizes the importance of rigorous testing and validation before integrating AI tools into medical practice.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP182 The yield of ERCP in symptomatic portal cavernous cholangitis

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DOI 10.1055/s-0044-1783471

Aims Our work aimed to determine the yield of ERCP in the management of symptomatic PCC

Methods This was a mono-centric retrospective study conducted over a 6-year period (2016-2023). We included all patients followed for chronic portal thrombosis complicated by PCC and who received endoscopic treatment.

Results Out of the 60 patients followed for portal cavernoma, 25 (41.6 %) had PCC, of whom 07 (28 %) were symptomatic. The mean age was 44.42 years, ranging from 19 to 84 years, with a clear male predominance (sex ratio 1.3). The clinical picture was marked by jaundice in 04 patients (57.1 %), pruritus in 02 patients (28.6 %), and hepatic colic in 28.6 % of cases. A history of upper GI hemorrhage was present in 14.3 % (n = 1) of cases and an anemic syndrome in 28.6 % (n = 2).

Clinical examination revealed splenomegaly in 100 % of cases, collateral venous circulation (CVC) in both flanks and the lower thorax in 71.4 % (n = 5) of patients, and clinical examination of the liver revealed an hepatomegaly in 71.4 % (n = 5). Liver function tests showed cholestasis in all patients, mild cytolysis in 06 cases (85.7 %), and hypersplenism in 42.8 % (n = 3). Upper endoscopy revealed signs of portal hypertension (PH) in 100 % of cases.

Abdominal ultrasound combined with Doppler and especially CP-MRI enabled the diagnosis to be made in 100 % of cases. The abnormalities found in our patients according to the classification proposed by Chandra et al were dilation of the VBP (type I) in one case (14.2 %) and bilateral dilation of the VBIH associated with dilation of the VBP (type IIIb) in 06 cases (85.7 %), associated with lithiasis of the VBP in 03 patients (42.8 %).

In those with symptomatic PCC, ERCP was performed in 05 cases (71.4 %), plastic stenting in two patients (28.6 %), plastic stenting after stone extraction in two patients (28.6 %), and biliary balloon dilation with plastic stenting in the left and middle hepatic ducts in one patient.

The course of the disease was marked by the disappearance of jaundice and pruritus and an improvement in the liver function tests in all patients, while post-ERCP cholangitis was registered in only one patient.

Conclusions Portal cavernous cholangiopathy is a fairly frequent complication in patients with PCC (41 %), which was symptomatic in up to 28 % of cases. ERCP is the gold standard for the treatment of symptomatic PCC.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP183 Navigating Ulcerative Colitis Knowledge on YouTube: A Critical Assessment of Academic and Anecdotal Sources

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DOI 10.1055/s-0044-1783472

Aims This study examines the varying impact of YouTube videos on Ulcerative Colitis (UC) from academic and private institutions. While academic channels offer evidence-based, scientifically vetted information, private sources may lack rigorous scrutiny and sometimes prioritize commercial or anecdotal content. With YouTube's massive user base, the absence of an editorial process can result in misinformation. This content quality and credibility discrepancy can significantly affect patient education and treatment outcomes for UC.

Methods We conducted a search on YouTube using the keywords "Ulcerative Colitis" and "UC IBD" to identify relevant videos. Exclusions were made for videos that were not in English, irrelevant, or lacked audio. We documented various video attributes such as views, likes, dislikes, comments, and the nature of the source (academic or private). The videos were then classified as reliable or unreliable based on the scientific accuracy of their content. We employed DISCERN, Global Quality Score (GQS), and the Patient Education Materials Assessment Tool (PEMAT) to evaluate video quality. The consistency among seven investigators in applying DISCERN, GQS, and PEMAT was measured using intraclass correlation.

Results We reviewed 61 YouTube videos that appeared in the search results, of which 32 (52.3 %) were academic and 29 (47.6 %) were private. Academic videos received higher DISCERN scores than private ones (317.5 vs. 23.64 5.07, $p = 0.018$). The Global Quality Score was also higher for academic videos (3.9 vs. 2.2, $p < 0.01$), as was the PEMAT score (4.1 vs. 2.7, $p = 0.022$). Furthermore, academic videos were found to have a positive correlation with the number of likes (OR: 0.75, $P < 0.001$), subscribers (OR:0.68, $P < 0.0001$), and views (OR:1.52, $P < 0.001$).

Conclusions Our study reveals significant quality discrepancies in YouTube videos on Ulcerative Colitis. Academic sources consistently outperformed private ones in accuracy and reliability, as indicated by higher DISCERN, Global Quality Score, and PEMAT ratings. The data also showed a positive correlation between academic sources and user engagement metrics like likes, subscribers, and views. These findings highlight the necessity of directing patients to academically-backed information to minimize the risk of misinformation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP184V Hemobilia due to adenocarcinoma of the gallbladder, an exceptional cause of upper gastrointestinal bleeding

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DOI 10.1055/s-0044-1783473

Abstract Text A 71-year-old woman with no medical history presented with melenic stools with significant acute anemia. Gastroscopy revealed active bleeding at the level of the ampulla of Vater, suggestive of hemobilia. A study was completed with Doppler ultrasound + CT + abdominal MRI, which revealed a hyperuptake vesicular lesion, which pointed to neoplastic origin. Finally, surgery was performed, compatible with gallbladder adenocarcinoma (pT3N1) [1].

We must include hemobilia in the differential diagnosis of upper gastrointestinal bleeding. Its most common etiology is iatrogenic. Gallbladder adenocarcinoma is an unusual cause of gastrointestinal bleeding, with few cases described in the literature. It appears especially in advanced stages. The difficulty of endoscopic management of these patients makes the surgical treatment of choice.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/711a1c6a-6d91-4a68-ab35-3d2476741816/Uploads/13821_hemobilia_ESGE%20DAYs%2024.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP185 Vacuum-Stent Treatment for Transmural Defects in the Upper Gastrointestinal Tract: Experience and Case Series in a Tertiary Referral Center

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Aims Transmural defects in the upper gastro-intestinal (GI) tract, e.g. anastomotic leak (AL), Boerhaave syndrome or iatrogenic defects, are associated with severe morbidity and mortality. [1, 2] Treatment options include conservative, surgical and endoscopic modalities. Endoscopic vacuum therapy (EVT) has recently been established as a promising endoscopic treatment option for such defects and is most often applied using endoscopically placed vacuum-sponges.[3, 4] The vacuum-stent is a novel device to apply EVT, combining the advantages of negative pressure wound therapy and an intraluminal stent, allowing for oral intake. [5–6]

Methods The aim of this prospective cohort study is to describe the experiences of, and lessons learned by a tertiary referral center with EVT experience since 2018, regarding the vacuum-stent for transmural defects in the upper GI tract. All patients treated with a vacuum-stent between November 2022 and October 2023 were included. Outcome measures included successful closure of the defect, reasons of treatment failure, adverse events and strictures.

Results 31 patients were included. Etiology of the defect was AL in 18 (58 %) patients, Boerhaave syndrome in 5 (16 %), iatrogenic in 5 (16 %), and 'other' in 3 (10 %). Success rates of vacuum-stent and –sponge EVT treatment (combined treatment) and vacuum-stent treatment alone were respectively 83 % and 78 %. Seven patients had unsuccessful vacuum-stent treatment. In this cohort, notable observed reasons of failure included a defect too close to the upper esophageal sphincter (UES), inadequate vacuum on the esophago-jejunal anastomosis, the presence of carcinoma at a persisting perforated ulcer, and the occurrence of adverse events. Two adverse events occurred (19 %): two patients developed a secondary defect at the site of the proximal flange, of whom one had a cervical anastomosis with a narrow proximal esophagus and one had Boerhaave syndrome. Four patients developed a severe stricture (15 %) requiring more than 3 dilations, incision therapy or self dilation, of whom three after McKeown esophagectomy.

Conclusions The vacuum-stent is a valuable treatment option for AL after Ivor Lewis esophagectomy, Boerhaave syndrome and iatrogenic defects with success rates of 80-89 %. Treating cervical anastomotic leaks is not recommended by us, due to the narrow lumen of the proximal esophagus, the proximity of the UES and high risk of severe strictures. Furthermore, caution is recommended in case of a narrow esophagus and the value of the vacuum-stent is yet to be determined in case of an esophago-jejunal anastomosis. In our experience, vacuum-stent and –sponge treatment complement each other and might be indicated in different situations. Sharing experiences on the topic is important

to assess the best techniques and indications, to be able to reach the full potential of the vacuum-stent and further increase the success rate.

Conflicts of interest R.E. Pouw is a consultant for MicroTech Europe

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eP186 The contribution of endo canal biopsy forceps in the diagnosis of biliary strictures: a preliminary study

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DOI 10.1055/s-0044-1783475

Aims Our work aimed to evaluate the contribution of intraductal biopsy in the diagnosis of biliary stenosis.

Methods This was a retrospective analytical study conducted over 4 years between 2019 and 2023. In this study we collated all patients who underwent ERCP for indeterminate biliary tract strictures.

Results Of 700 ERCP done, 14 patients had biliary stenosis who underwent intraductal forceps biopsy and in whom cholangiocarcinoma was suspected. The location of biliary stenosis was classified according to the site of the stenosis in relation to the main biliary confluence as described with Bismuth classification . The mean age was 61.6 years. There were 09 women and 05 men, sex ratio M/F = 0.55. Clinically, 92 % of our patients presented with jaundice and 85 % (n = 12) had acute cholangitis classified as grade 1 in 58 % (n = 8) ,grade 2 in 21 % (n = 3) and grade 1 in 7 % (n = 1) according to the Tokyo 2018 classification . Biologically, the mean total bilirubin level was 151.3 mg/l.

The location of the biliary stenosis was hilar in 50 % (n = 7) classified bismuth-cortical type 2 in 28 % (n = 4) , type 3a in 7 % (n = 1), type 3b in 7 % (n = 1) and type 4 in 7 % (n = 1); it occupied the entire main bile duct in 14 % (n = 2) and the medial and distal bile ducts in 7 % (n = 1) each and only at the level of the left hepatic duct in 01 case also .

Intraductal biopsy was performed in all our patients, with a positive result in 57 % (n = 8), of which 50 % (n = 4) were adenocarcinomas, 7 % (n = 1) were high-grade papillary intraductal neoplasms, 12.5 % were IGg4 cholangitis with a significant IGg4 blood level of 6.3 g/l, and 12. 5 % of cases (n = 1), in favor of mechanical cholangitis, although the last case was diagnosed as eosinophilic cholangitis.

Conclusions Intraductal forceps biopsy of biliary strictures after sphincterotomy is a specific with moderate sensitive method for anatomopathological diagnosis; in our series showed a positive results in more than 50 % of cases.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP187 Hemostatic powder versus conventional treatments for malignancy-related upper gastrointestinal bleeding

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DOI 10.1055/s-0044-1783476

Aims Endoscopic hemostasis is considered as 1st-line treatment of malignancy related gastrointestinal (GI) bleeding. Despite advances in endoscopic treatments, malignancy related GI bleeding is hard to manage with high rates of treatment failure and rebleeding. Recently, hemostatic powder (HP) has been used to treat malignancy related GI bleeding. Its adhesive and cohesive property fascilitates coagulation cascade, and it can be easily sprayed to the large surface of tumor bleeding with non-contact application. However, there are few reports about the efficacy of HP for malignancy-related upper GI bleeding (UGIB). Therefore, we aimed to assess the efficacy of HP compared with conventional treatments in terms of initial hemostasis and rebleeding rates for malignancy-related UGIB.

Methods We retrospectively analyzed data of total 213 patients with malignancy related UGIB from 2 centers between January 2017 and April 2023. Of these patients, 86 patients were treated with HP and 127 patients were treated with conventional hemostatic treatments such as mechanical clipping and thermocoagulation. We compared the initial hemostasis success rates, amount of blood transfusion (units of RBC to restore the baseline Hb level), early rebleeding (within 72 hours), delayed rebleeding (above 72 hours), length of hospitalization (days), and 30-day all-cause mortality between HP group and conventional hemostasis group. [1]

Results Among the total 213 patients, 4 patients had bleeding from esophagus, 190 patients from stomach, and 19 patients from duodenum.

The immediate hemostasis success rate was significantly higher in HP group compared with the conventional treatments group (97.7 % vs 90.6 %, $p = 0.039$). However, there was no significant difference in terms of amount of blood transfusion (2.1 ± 1.34 % vs 2.1 ± 1.95 %, $p = 0.979$), early rebleeding rate (12.8 % vs 10.2 %, $p = 0.562$), delayed rebleeding rate (20.9 % vs 15.0 %, $p = 0.259$), length of hospitalization (14.0 ± 17.08 % vs 11.9 ± 12.62 %, $p = 0.33$), and 30-day all-cause mortality (12.8 % vs 10.2 %, $p = 0.562$). No adverse events were reported from the application of HP.

On multivariable analysis, rockall score (OR = 1.403, 95 % CI 1.043 – 1.886), hemoglobin level at bleeding (OR = 0.753, 95 % CI 0.620 – 0.915), and prior cancer treatment history (OR = 2.4, 95 % CI 1.268 – 4.540) were significantly independent risk factors of rebleeding.

Conclusions Hemostatic powder may be considered as effective and safe method for the endoscopic management of acute malignancy-related UGIB. To establish the proper role of HP, large prospective studies are needed.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP188 Bismuth-Quadruple Therapy as first line eradication regimen of Helicobacter Pylori; experience in a European Union border county Hospital

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Aims Helicobacter Pylori (HP) has been identified as a Class 1 Carcinogen by the World Health Organisation and should be treated in any positive patients. HP antibiotic-resistance is an increasing problem worldwide with recent Irish data showing Clarithromycin resistance at 25 %. European guidelines have suggested an antibiotic should not be used when resistance is > 15 %. Clarithromycin remains the most prescribed HP eradication regimen in Ireland due to difficulty in sourcing Bismuth despite Bismuth Quadruple Therapy (BQT) being recommended an alternate first line therapy by Irish HSE. Pylera is not available in Ireland.

This study was to assessed HP eradication rates with 14-day BQT and identify prohibitive factors associated with its use in Cavan and Monaghan Hospital, Ireland, a peripheral European Union border-county Hospital over an 18-month period.

Methods Data of HP positive patients treated with BQT was collected from gastroenterology outpatients and endoscopy records including demographic data, HP diagnosis method, method of checking eradication and symptoms. In our centre, Rapid Urease Test (RUT) was carried out using Biohit UFT 300 (Biohit Oyj, Helsinki, Finland).

Prohibitive factors of using BQT were identified. All patients were contacted to assess symptoms post therapy and compliance with returning stool samples. Patient engagement was carried out by our Advanced Nurse Practitioner (ANP).

Results 61 HP positive patients were included. The demographics consisted of 52 % (n = 32) males, mean age 49 (range 17-82). For HP diagnosis; 86 % (n = 53) had RUT, 12 % (n = 7) had positive histology, and 2 % (n = 1) had positive stool antigen (SA). For HP eradication post therapy, 98 % (n = 60) had negative SA, 2 % (n = 1) had negative histology.

HP eradication with first-line BQT was 90 % (n = 55). Second-line eradication was 100 % (n = 6); 1 received Levofloxacin-based-Triple-Therapy and 5 received Levofloxacin-Quadruple-Therapy.

Prohibitive factors were only identified early during usage of BQT. This included availability of Bismuth, which was overcome with local and hospital pharmacy engagement, and cost of therapy, which was overcome when changing from Tetracycline to Doxycycline. 100 % of patients complied with eradication therapies and returning samples which is due to patient engagement by ANP. All patients had dyspepsia as initial symptom with resolution seen in 92 % (n = 56) post-eradication.

Conclusions Our study confirms excellent HP eradication rates (90 %) with first-line BQT with 100 % eradication achieved with second line therapy in an Irish setting. Prohibitive factors identified were easily overcome with ongoing engagement. Patient engagement by the ANP ensured compliance with therapy and sample return.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP189V Full-Circumferential (360 °) endoscopic submucosal dissection (ESD) of an early neoplasm involving the gastric fundus and the gastro-esophageal junction

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Abstract Text The aim of this presentation is to demonstrate the technical difficulties of performing ESD on lesions that extend throughout the gastric fundus. We present the case of a patient with a high-grade dysplastic lesion at the gastro-esophageal junction, that extends to more than 90 % of the lumen periphery in the cardia and fundus. We proceeded to the creation of a longitudinal submucosal channel from the esophageal part of the lesion towards the lesser curvature. The lateral fundic part of the lesion was not accessible with retroflexion of the gastroscope. Therefore, a pediatric PCF-H190TL/i colonoscope was used with a bending range of 210 °. This enabled a straightforward submucosal dissection plan and the lesion was successfully detached from the lateral parts of the submucosal channel.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/1d4e71dc-2a0f-43b1-925d-88473acdc6e3/Uploads/13821_360_gastric%20ESGE%20days.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP190 Comparative study on clinical changes in patients taking bowel cleansers(Oral Sulfate Tablets vs Low PEG vs Very low PEG)

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Aims Ever since Oral Sulfate Tablets were developed and approved as a bowel cleanser in Korea in 2019, they are being more frequently used. However, comparative studies of Oral Sulfate Tablets against existing bowel cleansing agents are focusing on the degree of bowel cleansing and quality management indicators of colonoscopy. Accordingly, we conducted a retrospective comparative study on the blood test results obtained from patients when using oral sulfate tablets compared to previously existing bowel cleansing agents.

Methods Data collection was prospectively conducted on patients aged 18 to 80, who visited Korea University Anam Hospital for colonoscopy, who have taken Oral Sulfate Tablets or Low PEG or Very low PEG over the past year (January 2022 – January 2023). The main evaluation variables are electrolyte(Na, K, Cl) changes, BUN/Cr, Boston Bowel Preparation Scale (BBPS) score, adenoma detection rate, adverse effects, and survey after colonoscopy. Although it was not a randomized trial, patients who had undergone surgery, those over 80 years of age, those taking anticoagulants, and pregnant women were excluded.

Results There were no significant differences in baseline characteristics between comparison groups and no significant difference in bowel cleanliness and adenoma detection rate. the most common side effects were nausea and vomiting in 60 % of patients, and other symptoms such as abdominal distension and dizziness were also reported. there were no life-threatening side effects. When patients took Oral Sulfate Tablet , they often took them all, and it was found that taking them was much easier. There was no significant electrolyte differences between comparison groups. Especially, there was no difference in side effects caused by bowel preparation in elderly patients(Aged > 65).

Conclusions When the Oral Sulfate Tablet is used in various patient groups, adverse effects such as Nausea and vomiting are less common, and Dry mouth were the more common side effects. In real world, compared to classical bowel cleansing agents such as Low PEG and Very low PEG, OST's efficacy and safety is not inferior. also electrolyte imbalance and increased creatinine are rarely seen. Patients who had experienced both OST and PEG tended to prefer OST. Based on this study's survey, if this is a group of patients who had difficulty with bowel preparation due to previous PEG, and additional colonoscopy is required, it would be a good idea to consider OST for the next examination.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP191 Domain-specific data augmentation improves robustness of endoscopic AI systems

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Aims The emergence of deep learning has significantly increased the amount of artificial intelligence (AI) systems in endoscopy. However, these systems are generally developed in expert centers with the use of uniform, high-quality imagery. In daily practice, imagery will be more heterogeneous, which will likely result in heavy degradation of AI performance. One aspect of this image heterogeneity is the use of different enhancement settings across endoscopy units. Endoscopy systems have numerous enhancement settings to improve perceived image quality. This study aims to quantify the impact of various enhancement settings on AI performance and proposes mitigation strategies.

Methods In this study two commonly used AI systems in endoscopy were evaluated. A computer aided detection (CADe) system for Barrett's neoplasia and a computer aided diagnosis (CADx) system for optical diagnosis of colorectal polyps. The images from the respective training and test sets were slightly augmented by adjusting post-processing enhancement settings. Performance variability was measured over all test sets with different enhancement settings. After initial performance assessment, both systems were retrained with all available enhancement settings.

Results The CADe system for Barrett's neoplasia reached AUC, sensitivity and specificity scores on the original test set of 96 %, 89 % and 89 %. On test sets with adjusted enhancement settings, performance varied strongly with maximum deltas of 5 %, 22 % and 25 % respectively. When trained on data augmented with all enhancement settings, this delta was reduced to 1 %, 1 % and 3 %. The CADx system displayed AUC, sensitivity and specificity scores of 78 %, 77 % and 52 %. Performance varied widely on test sets with altered enhancement settings with a maximum delta of 9 %, 18 % and 30 %. After training on all enhancement settings, the CADx' delta was 2 %, 6 % and 12 %.

Conclusions Performance of current existing AI systems may vary significantly depending on the selected post-processing enhancement setting of the deployment endoscopy unit. This variability can be effectively managed by domain-specific data augmentation, which ensures robust performance across different endoscopy centers.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP192 Prognosis of Young Patients with Early Gastric Cancer treated with Endoscopic Submucosal Dissection: compared with elderly patients

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DOI 10.1055/s-0044-1783481

Aims A small portion of patients are diagnosed with early gastric cancer (EGC) and undergo endoscopic submucosal dissection (ESD) at a young age, however, their clinical outcomes are rarely known.

Methods We investigated the clinical characteristics and outcomes of patients who underwent ESD for treatment of EGC at age under 50 years. We enrolled patients who were diagnosed with EGC and underwent ESD between 2006 and 2020. We divided them either for young age (YA) group if age ≤ 50 years and other age (OA) group if > 50 years.

Results We enrolled 1,349 patients (YA group: 105 patients [7.8 %], OA group: 1244 [92.2 %]). Compared with the OA group, the YA group contained more female patients (36.2 vs. 26.5 %, P = 0.033), their tumor was located in the middle third (41.0 vs. 29.6 %, P = 0.006) and was depressed (40.0 vs. 28.8 %, P = 0.001), and had more undifferentiated (30.5 vs. 12.1 %, P < 0.001) and diffuse type (22.9 vs. 7.3 %, P < 0.001) histology. However, synchronous tumor was less frequent in YA group (2.9 vs. 12.4 %, P = 0.001). When we sorted 884 patients who achieved curative resection and were followed up longer than 12 months, metachronous neoplasm (dysplasia or cancer) and metachronous cancer were significantly less in the YA group than the OA group (P = 0.003 and 0.013, respectively); however, local recurrence was not significantly different between the two groups.

Conclusions ESD is a favorable and effective therapeutic modality for EGC patients who are aged under 50 years, once curative resection is achieved.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP193V EUS-guided fine needle biopsy of a duodenal GIST: a challenge for endosonographers

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Abstract Text Gastrointestinal stromal tumors (GISTs) rarely arise from duodenum and, due to the complex anatomy of the region, they are often a diagnostic and therapeutic challenge.

We present a case of a 57 years-old woman which underwent abdominal ultrasound for mild abdominal pain, with a finding of a 2 cm-large mass close to the fourth portion of duodenum. After an inconclusive upper GI endoscopy, patient was referred to our unit for EUS-FNB; s a transgastric route was chosen to obtain tissue for diagnosis from the hypoechoic round-shaped mass arising from the duodenal wall [1].

The puncture was challenging due to the mobility of the lesion, but EUS appearance and histology confirmed the diagnosis of GIST and patient was then referred to surgeon

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/a6beb5f2-95c2-4692-86a7-93a220e6ca58/Uploads/13821_Duodenal_GIST%202.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP194 Performance of LAMS for anastomosis creation between two segments of the gastrointestinal tract: a large single-centre experience

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Aims The aim of this study was to evaluate the performance of LAMS for anastomosis creation between two segments of the GI tract.

Methods All consecutive patients who underwent EUS-GG, EUS-GE or EUS-EE between October 2019 and November 2023 were included in this analysis. The main outcome data of interest were technical success, clinical success and adverse events.

Results A total of 127 LAMS were placed in 119 patients (mean age, 61 years; 63 % women) to create a GG, GE or EE anastomosis. The overall technical and clinical success rate was very high [124/127 (97.6 %) and 118/125 (95.0 %), respectively]. Adverse events were seen in 18/127 cases [14.2 %; 10/18 (55.6 %) minor, 8/18 (44.4 %) major]. There was no procedure-related mortality.

Fifty-seven (44.9 %) procedures were performed in 54 patients (mean age, 54 years; 74 % women) to create access to an excluded part of the GI tract. The technical and clinical success rates were 55/57 (96.4 %) and 53/55 (96.2 %), respectively. The most common indication (54/57, 94.7 %) was the need for endoscopic access to the excluded stomach or duodenum in patients with a Roux-en-Y gastric bypass. In 3 (5.3 %) cases, an anastomosis between the duodenum and the afferent limb was created to obtain easy access to a hepaticojejunostomy. A single-session procedure was performed in 23.6 %. In the other cases, the mean time between LAMS placement and the needed endoscopic procedure was 16 days [range 6-94]. LAMS was removed in 51/57 (89.4 %) after

a mean time of 71 days [range 7-431]. Adverse events were seen in 10/57 (17.5 %), of which 4/10 were severe.

Sixty-one EUS-GJ procedures were performed in 57 patients (mean age, 67 years; 53 % women) for alleviation of GOO. Forty-five patients (71.9 %) had malignant GOO (mGOO) and 16/57 (28.0 %) had benign GOO (bGOO). The technical and clinical success rates were similar in both subgroups [44/45 (97.8 %) and 44/44 (100 %) in mGOO; 16/16 (100 %) and 15/16 (93.8 %) in bGOO, respectively]. The LAMS was removed in only 5/61 (8.2 %) of the mGOO (2/47 (4.4 %) and 3/16 (18.8 %) of the bGOO cases). Adverse events were seen in 7/61 (11.5 %), of which 3/7 were severe. Loss of LAMS patency occurred in 3/61 cases (4.9 %) after a mean interval of 247 days [range 39-592].

Nine procedures were performed in eight patients (mean age, 65 years; 89 % women) with a specific therapeutic purpose. The technical and clinical success rates were 9/9 (100 %) and 6/9 (75 %), respectively. The LAMS was removed in 4/9 (44.4 %) cases after a mean time of 51 days [range 27-89]. An adverse events was seen in 1/9 (11.1 %) of the cases.

Conclusions Creation of an anastomosis between two segments of the GI tract with a LAMS is effective, with an acceptable risk of procedure-related adverse events. The procedure offers a minimally invasive option to A: gain easy access to excluded parts of the GI tract in patients with a surgically altered anatomy and B: alleviate malignant and benign GOO.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP195 ERCP versus EUS-FNA For Tissue Diagnosis Of Biliary Strictures: A Seven Years Single Center Experience Results

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Aims Although it is difficult to distinguish benign from malignant in choledochal stenosis and masses, confirmation with anatomopathological diagnosis is essential [1]. ERCP is widely used for diagnosis because of the convenience and advantages of simultaneous stent placement [2]. EUS is also a suitable and relatively new method for the evaluation of anatomical structures around the bile duct and its popularity has been raising [1]. We aimed to examine the role of ERCP-based tissue biopsies/brush cytology and EUS-FNA in common bile duct stenosis. We also compared the advantages and complication risks of EUS-FNA and ERCP-based tissue biopsy/ brush cytology in patients with common bile duct stenosis and suspected malignancy.

Methods In this retrospective study, 135 patients older than 18 years of age who applied to our clinic between 2015 and 2022 and had common bile duct stenosis or mass on imaging were included. To calculate diagnostic performance, pathological reports of EUS-FNA and ERCP-based tissue samples were compared with the final diagnosis. Tissue samples were analyzed in five groups as benign, atypical benign, malignant, atypical malignant, suspected and non-diagnostic.

Results The sensitivity, specificity, and diagnostic accuracy of ERCP-based tissue samples were 76.62 % (95 % CI: 65.59 % to 85.52 %), 86.84 % (95 % CI: 71.91 to 95.59 %) and diagnostic accuracy, respectively. It was 80 (95 % CI: 71.52-86.88). However, the sensitivity, specificity, and diagnostic accuracy of EUS FNA were 97.50 % (95 % CI: 86.84 %- 99.94 %), 58.33 % (95 % CI: 27.67-84.83 %), respectively.) and 88.46 % (95 % CI: 76.56- 95.65). Accordingly, the sensitivity and diagnostic accuracy of EUS-FNA was superior to ERCP; however, the specificity was superior to EUS-FNA in ERCP-based tissue samples (p = 0.001).

The positive predictive value and negative predictive values of ERCP-based tissue samples were determined as 92.19 % (95 % CI: 83.78 % – 96.42 %) and 64.70 % (95 % CI: 54.56 % – 73.67 %) . The positive predictive value and negative predictive values of EUS-FNA were 88.63 % (95 % CI: 79.94-93.85 %) and 87.50 % (95 % CI: 48.81-98.09 %), respectively.) was. However, no significant difference was found between positive predictive and negative predictive values of EUS-FNA and ERCP (table-1) based tissue samples (p = 0.454). The sensitivity and diagnostic accuracy of EUS-FNA was superior to ERCP in cases with distal stenosis localization; however, the specificity was found to be superior to EUS-FNA in ERCP-based tissue sampling (p = 0.001).

Conclusions The sensitivity and diagnostic accuracy of EUS-based tissue sampling was superior to ERCP, and the specificity was superior to EUS in ERCP. The sensitivity and diagnostic accuracy of EUS was found to be superior to ERCP, and the specificity was superior to EUS in ERCP-based tissue sampling in cases with distal stenosis localization. However, for proximal stenosis, no significant difference was found between the sensitivity and specificity of the procedures.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP196 Local Recurrence in Early Gastric Cancer with Curative Resection achieved through Endoscopic Submucosal Dissection

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Aims We investigated the local recurrence rate and its risk factors among patients who underwent endoscopic submucosal dissection (ESD) for early gastric cancer (EGC) and were judged to have undergone curative resection.

Methods We enrolled patients who were diagnosed with EGC and underwent ESD between 2006 and 2020. Local recurrence after ESD was confirmed by histopathological evaluation by endoscopic biopsy at the ESD site during endoscopic surveillance.

Results A total of 936 patients underwent ESD for EGC, achieved curative resection, and were followed up for more than 12 months. Among them, 14 cases of local recurrence were found (14/936, 1.5 %) during 53.2 months of follow-up. Compared with patients without local recurrence, those with local recurrence showed male predominance (677/922 vs. 14/14, $P = 0.025$), frequent presence of synchronous tumor (123/922 vs. 6/14, $P = 0.001$) and larger tumor size (16.3 vs. 26.3 mm, $P = 0.001$). Kaplan-Meier graph also showed that local recurrence significantly occurred in the subgroup with male, presence of synchronous tumor, and tumor size ≥ 20 mm ($P = 0.028$, 0.009 and < 0.001 by log rank test, respectively). After propensity score matching for gender, age, and comorbidities with 1:5 ratio, tumor size ≥ 20 mm was the only significant factor for local recurrence (odds ratio: 3.886, 95 % confidence interval: 1.012-14.922, $P = 0.048$)

Conclusions Endoscopists should be cautious about local recurrence at the ESD site even after curative resection of EGC, especially for large tumor sizes.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP197 Patients' sentiments on artificial intelligence in endoscopy: A large-scale intercontinental opinion survey

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DOI 10.1055/s-0044-1783486

Aims In recent years, the number of clinical studies evaluating artificial intelligence (AI) systems in endoscopy has increased. Authorities encourage integration of patients' thoughts in development of innovative medical interventions to allow their patient-friendly implementation. However, little is known about patient perception regarding AI in endoscopy.

Methods A prospective questionnaire study was conducted as part of the World Endoscopy Organization (WEO) AI committee activities. The committee developed 13 statements on the use of AI in endoscopy which were distributed to patients using a dedicated online survey platform. To avoid potential selection bias, the questionnaires were distributed equally to each of the six continents in the World. Patients responded to each of the statements by using a 5-point Likert-scale, ranging from strongly disagree (1) to strongly agree (5).

Results In total, 1,237 patients completed the survey (>200 per continent). The majority of patients believed that humans and AI can complement each other (74.3 % agreed) and would support its use (75.5 % agreed). However, fewer patients believed that an AI system could be better than experienced endoscopists (38.2 % agreed) and endoscopists should remain responsible for decision making (92.3 % agreed). The majority of patients believed that endoscopists or hospitals should be liable for medical malpractice induced by the use of AI (76.9 % agreed).

Conclusions This large-scale international survey performed by the WEO AI committee revealed an obvious trend that patients appreciated benefit of using AI in endoscopy but did not blindly rely on the technology, leaving endoscopists and hospitals responsible for decision making and liability issues.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP198 Predictive factor of Out-Of-Hour Endoscopic Intervention

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Aims It has been reported that a score of 7 Glasgow Blatchford Score (GBS) points or higher is useful as an index for endoscopic intervention in acute upper gastrointestinal bleed (AUGIB) [1]. We conducted a retrospective cohort review, assessing factors associated with endoscopic interventions in adults with AUGIB requiring out-of-hour (OOH) endoscopy.

Methods This study was conducted in a single tertiary centre hospital over a 12-month period, from 1st of May 2022 to 30th April 2023. OOH endoscopy was defined as procedure performed in adults with AUGIB after 18:00 to 09:00, the following day. Cases were identified using the Endoscopic Medilogic System (EMS) and OOH record books. Demographic, presenting complaint, use of anticoagulation or anti platelet therapy, pre-endoscopy haemoglobin and intervention, GBS score, timing of endoscopy, endoscopic findings, endoscopic intervention and patient outcome were analysed. Fishers exact test was used for statistical analysis.

Results 46 cases were analysed (male n = 34, female n = 12). Mean age was 48.3 years (SD 16.4). 52 % (n = 24) presented with 'red blood emesis' (with or without melaena), 34 % (n = 16) with melaena alone, 14 % (n = 6) with 'other symptom'(including coffee ground emesis). 21 % (n = 10) were on anti-platelet or anti-coagulation therapy. Median GBS score was 11 (IQR 7). Median time to endoscopy was 6 hours (IQR 5). Overall, 72 % (n = 33) required endoscopic intervention (n = 15 for varices, n = 7 for peptic ulcer disease, n = 11 for 'other' findings including oesophageal tear, post endoscopic mucosal resection bleed and vascular lesions). Mean length of stay was 17.1 days (IQR 17.5). 30-day mortality was 23 % (n = 11), none were directly related to endoscopic interventions. 91.3 % (n = 42) had a GBS ≥ 7 before endoscopy. Of this, 81 % required endoscopic intervention. 50 % (n = 2) of patients with GBS ≤ 7 required endoscopic intervention (GBS ≥ 7 vs GBS ≤ 7, p = 0.201). Both patients requiring intervention presented with 'red blood emesis'. Presentation with 'red blood emesis' is associated with endoscopic intervention rates when compared to patients with no red blood emesis (n = 20 vs n = 11, p = 0.0268). Patients with 'other symptom' presentations did not require endoscopic intervention. None of the other factors analysed were predictive of OOH endoscopic intervention requirement

Conclusions Presentation with 'red blood emesis' appear to be a factor associated with predicting OOH endoscopic intervention. A prospective cohort review will be beneficial to validate this.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP199V Duodenal endoscopic submucosal dissection and clip-assisted endoscopic suturing using the string-clip method

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Abstract Text Closure of the post-ESD duodenal ulcer bed using endoscopic clips can decrease the risk of delayed bleeding and perforation. We present the case of a dysplastic adenoma of the 2nd part of the duodenum dissected using the pocket-creation ESD method. After ESD completion, clip-assisted endoscopic suturing using the String-Clip method was applied. The clip with an attached suture is released at the distal end of the ulcer grasping both the mucosa and the underlying muscle layer. Then the suture is pulled proximally and a second clip is applied at the proximal end of the ulcer. The central part of the defect is sealed tight and following closure of the peripheral ends with clips is thus feasible. The suture was then cut using endoscopic scissors. [1]

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/cdfc8c72-ed9a-43e4-b33a-b6eba3257007/Uploads/13821_String_Clip%20ESGE%20DAYS.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP200 ERCP in the absence or after spontaneous passage of common bile duct stones. A cohort study from a UK teaching hospital

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Aims ERCP is the gold standard for the treatment of CBD stones. In a small percentage of patients with suspected or radiologically proven choledocholithiasis, ERCP is normal. This should be minimized given the significant risks associated with the procedure. The objective of this study was to review the reported normal ERCPs for biliary stone disease and identify their clinical, radiological and biochemical characteristics.

Methods Data were retrospectively collected from the endoscopy and patient record system as well as a prospectively maintained database of all ERCP procedures of a UK teaching hospital during a 12-month period, from 1/10/2022 to 30/9/2023 with a 30-day additional follow-up period. Variables were assessed by mean with standard deviation (SD) or median with interquartile range (IQR).

Results There were 377 ERCPs during the study period, of which 259 (68.7 %) were performed for biliary stone disease. The majority, 202/259 (78 %) were inpatient procedures. 19/259 ERCPs were reported as normal/no stones (7.3 %). Most recent imaging was MRCP for 14/19 patients, CT for 2/19, abdominal ultrasound (USS) for 2/19 and an on-table cholangiogram for 1/19 patient. Median days for imaging-to-ERCP was 3(1;12).

13/19 patients had a dilated CBD on the most recent imaging and 17/19 had a CBD stone. Stone size was not mentioned in 4 cases – all with significant radiographic CBD dilatation. 2/19 patients had a stone > 5mm and 1/19 had a stone > 10mm.

13/19 patients had an abnormal ALP before the procedure and 8/19 an abnormal bilirubin. Median days of LFTs to ERCP was 1(1;2). 8/19 patients had normal or an improving pattern on their LFTs prior to the procedure.

In 2/19 procedures, the operator mentioned on the report that there was suspicion of spontaneous passage from the endoscopic appearance of the ampulla.

2/19 patients had a procedural complication, 1 had a post ERCP pancreatitis and 1 a small post sphincterotomy bleed.

Conclusions Current guidelines suggest offering CBD stone extraction to all patients fit to undergo the intervention. In keeping with larger recent studies, this small cohort shows that despite several parameters predicting spontaneous stone passage, implementing a more accurate algorithm would be challenging. Single session combined EUS/ERCP in selected cases can potentially further reduce the number of unnecessary ERCPs in centres that can offer both services. [1–3]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP201 The yield of endoscopic ultrasound in mediastinal lesions

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Aims Endoscopic ultrasound (EUS) with fine-needle biopsy (FNB) and histo-pathological study of mediastinal lesions had valuable diagnostic and therapeutic outcomes.

Our study aimed to evaluate the diagnostic yield of EUS-guided FNB (EUS-FNB) of mediastinal lesions.

Methods This was a retrospective descriptive study over 5 years, from January 2019 to October 2023, including all patients undergoing EUS-FNB of mediastinal lymph nodes (LN) and/or mass.

Results Mediastinal LN or mass EUS-FNB was performed in 10 patients, the median age was 62 [57-65] with a sex ratio of M/F of 1,5. FNB was performed on masses in 20 % (2) compared to 80 % (8) on LN with multiple attempts. The median size of these LN was 20 mm [14-26.8]. The needle size was 22 in 50 % (5), 20 in 40 % (4), and 19 in 10 % (1).

The histopathology diagnosis was a malignant tumor in 40 %(4), including one adenocarcinoma of bronchial origin, one moderately differentiated carcinoma of breast cancer, one pulmonary well-differentiated carcinoma, and one undifferentiated carcinoma. In one case, the biopsy was lymph node anthracosis. In 40 % of cases (4) the FNB were hemorrhagic and non-specific inflammatory nature and in one case the final diagnosis was a sarcoidosis. we noticed no complications related to EUS-FNB.

Conclusions EUS-FNB is positioned at the forefront for the diagnosis of mediastinal LN and mass. It is a technique that remains minimally invasive and efficient, allowing not only to rule out a neoplastic origin but also to establish a specific treatment when the pathology is documented in more than 55 %.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP202 Liver biopsy guided by endoscopic ultrasound

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Aims Liver biopsy, guided by endoscopic ultrasound, has emerged in recent years as a safe, economical, highly effective method of obtaining an adequate tissue sample for analysis by a pathologist. In our institution, we use it to diagnose focal changes in the liver, parenchymal liver diseases and accumulation diseases such as hemochromatosis. According to The American Association for the Study of Liver Diseases (AASLD) , an adequate liver biopsy sample is a 2- to 3-cm-long specimen containing at least 11 complete portal tracts. This is concordant with the recommendation from the British Royal College of Pathology, requiring at least 2-cm-long specimen and > 10 portal tracts.

Methods There are several methods of tissue acquisition: Door-knocking method, Fanning technique, Suction technique, The wet suction method, Capillary action. We use the wet suction technique, in which the stylet is removed and the needle is filled with heparinized saline solution thus reducing the blood clotting process inside the needle and reducing sample fragmentation.

Results A woman who underwent surgery 10 years ago for a breast neoplasm presents with metastatic changes in the liver. An EUS-LB of focal changes in the right liver lobe was performed using 19G FNB needle for 3 passes. Liver tissue (several samples 0.2 cm long) permeated with glandular formations is obtained using 19 ga Franseen needle. Immunohistochemical – estrogen positive cells 90 %, HER 2 score 2, progesterone negative, Ki67 about 30 %. Diagnosis: Metastasis of primary breast cancer [1–6].

Conclusions Although the authors agree that a simpler approach is to the left lobe, we decided to biopsy the lesion of the right lobe without postprocedural complications. Our previous experience with 7 patients (3 EUS FNB, 4 EUS FNA) confirms the safety of the method and an adequate sample for diagnosis. The preferred needle for EUS-LB is a 19G FNB needle, which demonstrates superior specimen adequacy and less tissue fragmentation compared to a 22G FNB needle or a 19G FNA needle.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP203 The yield of Endoscopic Ultrasound guided sampling in Cystic pancreatic neoplasms

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Aims Cystic pancreatic neoplasms are characterized by the replacement of the pancreatic epithelium to neoplastic mucus-secreting cells. The diagnostic approach aims to confirm the diagnosis of a cystic tumor and evaluates its benignity or malignancy.

We aimed to evaluate the performance of endoscopic ultrasound (EUS) guided sampling of cystic pancreatic neoplasms.

Methods This was a retrospective study, over 28 months, that included all patients with cystic pancreatic neoplasms who had undergone a EUS guided fine-needle aspiration. The EUS was performed using fine-needle aspiration (FNA) needles (22G, 20G, and 19G) or fine-needle biopsy (FNB)needles (22G). During the sampling process, the macroscopic aspect of the liquid was noted and in the presence of associated solid mass, the slow pull capillary technique with macroscopic on-site evaluation (MOSE) was applied.

Results Fifteen patients benefited from a EUS-guided aspiration of suspicious cystic pancreatic neoplasms. The median age was 61.2 years [39-85] with a sex ratio M/F of 0.8. FNA or FNB was done for all patients. The median size of cysts was 26.56mm [7-80mm]. The cysts were located in the pancreas head in 4 patients (26.7 %), in the isthmus-body junction in 8 patients (53.3 %), and in the body-tail junction in 3 patients (20 %). The number of passages required was 2 passages for 13 patients (86.7 %) and 1 passage for 2 patients (13.3 %). The needle used was a 22G needle for 8 patients (53.3 %), a 22G-Procore for 4 patients (26.7 %), a 20G procore needle for 2 patients (13.3 %), and a 19G needle for 1 patient (6.7 %). The communication between the cyst and branch duct was found in 7 patients (46.7 %) and a cystic mass appearance was found in 9 patients (60 %). The appearance of the liquid was clear in 10 patients (66.6 %), sero-haematic in 4 patients (26.7 %) brownish, and viscous in 1 patient (6.7 %). A String test was done for 3 patients and was positive in 1 case (6.7 %) and negative in 2 cases (13.3 %). Mural nodules were absent in 13 patients (86.7 %), and present in 2 patients (13.3 %) The biochemical analysis of the cystic liquid was done for CEA and amylase in 7 patients (46.7 %) and were 240.9 [2.55-1040] and 25224.71 [5-83330] respectively. The serum CA19-9 and CEA were 160.2 [2-1164] and 6.6[1.09-5.6] respectively. The histopathological analysis found adenocarcinoma in 3patients (20 %), hemorrhagic and inflammatory in 2 patients (13.3 %), a ductal mucinous tumor in 2 patients (13.3 %), a serous cyst in 1 patient (6.7 %), and lymphocytic infiltrations in 1 patient (6.7 %).

Conclusions The EUS-guided sampling of cystic pancreatic neoplasms was conclusive in (60 %) of patients and allowed histological proof of malignancy. A negative result can be handled by a second attempt.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP204 Impact of bowel cleansing on adenoma detection rate: post hoc analysis of a randomised clinical trial

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Aims Adenoma detection rate (ADR) is a robust quality indicator independently associated with the risk of interval colorectal cancer (I-CRC) and death. Nevertheless, reliable ADR strictly depends on adequate bowel cleansing.

Methods The 'OVER' trial was a phase-IV RCT performed across 10 Italian centers. Four hundred seventy-eight patients were randomized 1:1 to receive 1L-PEG + ASC or 4L-PEG regimen. This post-hoc analysis aims to assess the impact of bowel cleansing quality on polyp detection rate (PDR) and ADR, and to explore predictors of lesion detection rate.

Results PDR was significantly higher in patients with BBPS ≥ 6 compared to those BBPS < 6 (35.6 % vs 18.5 %, $P = 0.013$), and ADR was higher, even if not significantly, in patients with BBPS ≥ 6 compared to those BBPS < 6(25.6 % vs 16.7 %, $P = 0.153$).

Comparing patients with BBPS = 9 over BBPS = 7-8, no significant differences were found in PDR (34.5 % vs 38.4 %, P = 0.483) nor ADR (24.1 % vs 27.2 %, P = 0.553).

Despite the higher effectiveness of 1L-PEG + ASC over 4L PEG on cleansing success (91.8 % vs 83.6 %; $P = 0.009$), no differences in PDR (34.1 % vs 32.9 %, $P = 0.787$), ADR (25.5 % vs 23.5 %, $P = 0.632$), were found between the two preparations.

At multivariable logistic regression analysis, older age (OR = 1.042, 95 % CI = 1.021-1.063; $P < 0.001$), shorter intubation time (OR = 0.891, 95 % CI = 0.816-0.972; $P = 0.010$), higher withdrawal time (OR = 1.171, 95 % CI = 1.094-1.253; $P < 0.001$) and full consumption of the first dose (OR = 8.368, 95 % CI = 1.025-68.331; $P = 0.047$) were independently associated with ADR.

Conclusions This post-hoc analysis of a large RCT showed that excellent cleansing (BBPS = 9) over high-quality cleansing (BBPS = 7-8) does not significantly improve PDR or ADR.

Neither cleansing success, nor preparation type were independently associated with ADR.

Compliance to bowel preparation, timing of colonoscopy and accurate withdrawal time are key elements to ensure adequate ADR with potential implications in reducing I-CRC.

Conflicts of interest Marcello Maida served as advisory board member and received lecture grants from Norgine. Roberto Vassallo received consultation fees from AlfaSigma and Norgine. Other authors have no conflict of interests.

eP205 The yield of endoscopic retrograde cholangiopancreatography in the management of benign biliary strictures

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Aims Our study aimed to illustrate the place of ERCP in the diagnosis and treatment of BBS.

Methods This was a retrospective study over 5 years, from May 2019 to November 2023, including all patients who underwent ERCP for BBS. The diagnosis of BBS was established on clinical, biological, and imaging data in all patients and on histopathological results of intraductal biopsies.

Results Out of 700 patients who benefited from ERCP, 47 (6.7 %) had benign biliary strictures. The median age of our patients was 56 years [19-93], with a clear female predominance (sex ratio M/F = 0.3). Sixty-eight percent (n = 32) of patients were admitted with cholangitis, of which 87.5 % (n = 28) were grade I, 6.25 % were grade II and III, and 2 patients were admitted with acute pancreatitis. Biochemically, cytolysis was observed in 72.3 % of cases (n = 34) and cholestasis in 93.6 % of cases (n = 44), of which 75 % of cases (n = 33) had jaundice.

In our series, the post-cholecystectomy biliary injury was noted in 22 cases (47 %), primary sclerosing cholangitis (PSC) in 7 cases and secondary sclerosing cholangitis in 2 cases, and chronic calcifying pancreatitis (CCP) in 5 cases, IgG4 cholangitis and an ampullary mass in 3 cases each, portal cavernous cholangitis (PCC) in 2 cases each, and fibrous odditis, biliary stricture due to lymph nodes tuberculosis and choledeco-duodeunal anastomosis stricture in a single case. Catheterizing the stricture of the common bile duct (CBD) was impossible in 9 cases, for whom surgical hepatico-jejunal anastomosis was performed in 8 cases and percutaneous drainage in one case. ERCP gave access to the CBD in 70 % of cases (n = 33), and precut was required in 12.7 % of cases (n = 6). Opacification revealed stenosis of the convergence and distal part of the CBD in 23.4 % of cases (n = 11), median stenosis in 17 % of cases (n = 8), extensive stenosis over the entire CBD in 6.38 % of cases (n = 3), stenosis of the intrahepatic bile ducts in 2 cases, a rosary beads appearance in 2 cases and stenosis of the anastomosis in a single case. A biliary stenting was deployed for 32 patients. Twenty-five patients had a plastic stent, 4 patients had 2 plastic stents and 3 patients had a fully covered metallic stent. Endoscopic dilation was used for 11 patients (23.4 %). The average diameter of the stent was 7 Fr (10fr-5fr). Post-ERCP adverse events were pancreatitis in 3 patients and one had cholangitis. Twenty-six patients were taken back after 3 to 6 months, with stent replacement in 21 cases, and stent ablation in 5 cases. Only one case of obstruction and one case of stent migration were noted. The other patients received medical treatment exclusively with deoxycholic acid.

Conclusions ERCP is a safe, effective, repeatable, and less invasive technique for the diagnosis and management of BBS, allowing endocanal biopsies, and therapeutic management with endoscopic drainage of the bile ducts.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP206 The evolution profile of pancreatic collections

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Aims we aimed to describe the evolution of pancreatic collections in acute pancreatitis.

Methods This was a retrospective descriptive monocentric study spread over a period of 5 years, from January 2019 to October 2023, including all patients admitted for acute pancreatitis stage D and E. All other stages of acute pancreatitis were excluded from our study. The diagnosis of AP was based on the Atlanta criteria.

Results Of a total of 132 patients with acute pancreatitis (AP), 56 were classified as grade E and D, representing an incidence of 42.8 %.The mean age was 58.6 years + /- 14.7, with a sex ratio of 0.75.

On admission the SIRS score was present in 75 % (n = 42), with a persistence of more than 48h in 42.8 % of patients.

Abdominal CT scan showed acute pancreatitis stage E of balthazar in 80.3 % of cases (n = 45), with parenchymal necrosis in 53.3 % of cases, and acute pancreatitis stage D of balthazar in 19.6 % of cases. The etiologies of these acute pancreatitis were biliary in 58.9 % (n = 34) of the cases, metabolic in 8.9 % (n = 5), alcoholic in 3.5 % (n = 2), iatrogenic (post ERCP) in 7.1 % (n = 4), pancreas divisum in 1.78 % (n = 1) and idiopathic in 14.2 % of the cases.

All patients received hydration analgesic, and prophylactic anticoagulation during hospitalization, with early oral refeeding. The evolution was marked by a disappearance of clinical symptoms in 59 % of the cases, an appearance of local complications in 22.72 % of the cases, of which 2 patients had an early necrotic infection and a recurrence of another episode of acute pancreatitis in 15.9 % of the cases.

The abdominal CT scan performed at 6 weeks in 44 cases showed a regression of the size of the collections in 52.2 % of the cases (n = 20), an increase in the size of the collections in 29.5 % of the cases (n = 13) of whom 69.2 % (n = 9) had developed a walled-off necrosis, and a stability of the appearance of the collections in 18.1 % of the cases.

Therapeutically, the symptomatic patients benefited from a drainage whose principal indications were superinfection and compression of the adjacent organs, and the asymptomatic patients did not benefit from any treatment.

Symptomatic collections were drained endoscopically in 7 cases, with the placement of two double stents in 6 cases and of a metallic LAMS stent in one case with 2 sessions of necrosectomy, surgical drainage in 3 cases and radiological drainage in 2 cases.

The evolution after drainage was noted by the disappearance of symptoms in 6 patients, and death in 3 cases.

Conclusions Our work has shown a favorable evolution in the majority of patients who benefited from an adapted therapeutic management. Endoscopic drainage of symptomatic pancreatic collections is effective and less invasive and should be preferred.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP207 Exploring gender differences in quality of bowel preparation for colonoscopy: post hoc analysis of a randomised clinical trial

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Aims Adequate bowel cleansing is a key-element for a quality colonoscopy and may affect the lesion detection rate. Differences in exposure to risk and protective factors could contribute to the gender difference in efficacy of bowel preparation. This post-hoc analysis of a randomised phase-IV clinical trial aims to explore gender differences in predictive factors associated with cleansing success (CS) and adenoma detection rate (ADR).

Methods The 'OVER' trial was a phase-IV RCT performed across 10 Italian centers (registration/protocol: EudraCT Number 2018-004543-24). Four hun-

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dred seventy-eight patients were randomized 1:1 to receive split-dose 1L PEG + ASC or a split-dose 4-L PEG-based regimen. In this post-hoc analysis, multivariable logistic regression models were designed to assess independent predictors of CS and ADR by gender.

Results Of the 478 randomized patients, 55.2 % were male and 45.7 % female ($P = 0.047$), with a similar mean age (60.5 ± 14.7 vs 58.0 ± 14.9, $P = 0.082$).

Overall, CS was similar in females and males (87.1 % vs 88.4, $P = 0.6$), with an higher rate of segmental CS in the right colon (95.7 % vs 90.9, $P = 0.049$), and in the transverse colon (98.6 % vs 93.9, $P = 0.011$) in females, and absence of differences in ADR (21.7 % vs 27.3, $P = 0.1$).

At multivariable logistic regression analysis for CS, outpatient setting (OR = 5.558, 95 % CI = 2.132-14.489; $P < 0.001$), and higher withdrawal time (OR = 1.294, 95 % CI = 1.023-1.636; $P < 0.032$) were independently associated with CS in females, and only screening/surveillance indication for colonoscopy (OR = 6.776, 95 % CI = 1.533-29.955; $P = 0.012$) was independently associated with CS in males.

At multivariable logistic regression analysis for ADR, a running time < 5h between end of preparation and colonscopy (OR = 3.014, 95 % CI = 1.153-7.878; $P < 0.024$), and higher withdrawal time (OR = 1.250, 95 % CI = 1.100-1.421; $P < 0.001$) were independently associated with ADR in females, while older age (OR = 1.040, 95 % CI = 1.013-1.067; $P = 0.003$), and higher withdrawal time (OR = 1.093, 95 % CI = 1.018-1.173; $P = 0.014$) were independently associated with ADR in males.

Conclusions Different results in quality of bowel preparation, as well as different predictors of CS and ADR were found by gender analysis. Our findings suggest the need for further research to explore gender differences and develop gender-specific approaches to tailor bowel preparation.

Conflicts of interest Marcello Maida served as advisory board member and received lecture grants from Norgine. Roberto Vassallo received consultation fees from AlfaSigma and Norgine. Other authors have no conflict of interests.

eP208 Abnormal gastroesophageal flap valve: a predictor of recurrent variceal haemorrhage

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DOI 10.1055/s-0044-1783497

Aims Esophageal variceal bleeding is affected by various risk factors. We hypothesized that increased exposure to gastric acid in patients with abnormal gastroesophageal flap valve (GEFV) might increase esophageal variceal bleeding.

AIM-To investigate the relationship between GEFV and esophageal variceal bleeding episodes.

Methods In this cross-sectional, retrospective study, 300 consecutive patients with esophageal varices and a documented GEFV during esophagogastroduodenoscopy were included. Patients were divided into two groups according to: the Hill's grade of flap valve (grade 1,2- normal and grade 3,4- abnormal), size of varices – large (> 5 mm) and small (< 5 mm) and the number of bleeding episodes into: Group A with ≤ 1 and Group B with ≥ 2 bleeding episodes. We compared GEFV and various other factors to the number of variceal bleeding episodes.

Results 224 patients (74.60 %) had a normal and 76 (25.40 %) had an abnormal GEFV. Clinical variables were statistically significant in the abnormal GEFV group (P < 0.0.5). Propensity score matching was done to reduce the significant differences in the clinical background at baseline between the 2 groups. 152 patients (76 in each group) were analysed after propensity score matching. A significant difference between the two groups disappeared except for number of bleeding episodes. Binary logistic Cox regression analysis was applied using the clinical variables to assess their role in predicting recurrent variceal bleeding. On univariate analysis, abnormal GEFV and large varices were significantly associated with recurrent esophageal variceal bleed (P = 0.001). On Multivariate analysis, abnormal GEFV (OR 7.25, 95 % CI 3.27– 16.08, P = 0.001) and large varices (OR 5.70, 95 % CI 2.45– 13.20, P = 0.001) were independent predictors for recurrent esophageal variceal bleeding. [1–2]

Conclusions Abnormal GEFV and large varices are independent risk factors for recurrent esophageal variceal haemorrhage.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP209 Frequency of GERD in patients with hoarseness of voice with assessment of impedance pH analysis and acoustic voice parameters at a tertiary care centre

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Aims Acid reflux is a common problem, and is thought to occur in 4 % to 10 % of patients presenting to clinics.A study of reflux and voice disorders suggests that up to 55 % of patients with hoarseness (dysphonia) have laryngopharyngeal reflux.Exact incidence of gastroesophageal reflux disease (GERD) is not known in these sets of patients.Relation of acoustic parameters with GERD is also not studied well. So aim of the study was to investigate frequency of GERD in patients with hoarseness of voice and to study acoustic voice parameters & 24 hour impedance pH-metry finding in hoarseness with GERD patients.

Methods 406 patients identified with hoarseness of voice of more than 6 weeks in ENT OPD, speech clinic and gastroenterology OPD combined.On basis of history, indirect laryngoscopy and speech parameters assessment ,374 patients were excluded for smoking, neurological, infectious causes of hoarseness.Remaining 32 patients underwent upper GI scopy, oesophageal manometry and 24-hour pH-metry. • GERD was diagnosed on basis of 24-hour pH analysis showing DeMeester score > 14.72 or AET > 6 % or total number of reflux episodes by impedance more than > 80 or Upper GI scopy showing Los Angeles classification grade C/D esophagitis /long segment barrett's esophagus /peptic oesophageal stricture.

Results After exclusion,32 individuals with hoarseness of voice were evaluated further. Mean Age was 40 ± 16 years. 50 (16) % individuals were Females. Median duration of hoarseness was 24(2,96) months. Most common associated typical symptom were regurgitation (67 %) and heart burn (50 %). Erosive esophagitis was present in 15 individuals (46.87 %) and among them 3 had LA grade C esophagitis. Among 29 remaining individuals, Mean DeMeester Score was 14.20 ± 16.6. Mean AET was 3.96 ± 5.05 %. Mean No. Of Reflux Episodes 99 ± 84. Total 19 individuals diagnosed with GERD by using endoscopy (3) and impedance pH analysis (16) criteria.

12 acoustic parameters named Average Frequency (Fo), Highest Fo, Lowest Fo, Absolute Jitter, Jitter Percentage, Pitch perturbation Quotient, Shimmer in decibel (db), Shimmer Percentage, Amplitude perturbation Quotient, NHR – Noise to Harmonic Ratio, Voice turbulence index, soft phonation Index were studied in relation to GERD.

On univariate analysis, Jitter %, Absolute jitter, Pitch perturbation quotient, Shimmer (db) were significantly associated with GERD (p < 0.05). On multivariate analysis, Absolute jitter (OR 1.25, 95 % CI 1.00– 1.68, P = 0.018) and Shimmer (db) (OR 7.745, 95 % CI 0.96– 25.08, P = 0.043) were independent predictors for GERD.

Conclusions GERD was cause of idiopathic hoarseness of voice in 7.88 % patients.

Speech parameters absolute Jitter and Simmer(db) are independent predictors of GERD.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP210 Correlation between white globe appearance and clinicopathologic factors in early gastric cancer

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Aims Magnifying endoscopy with narrow-band imaging (ME-NBI) enables a detailed visualization of microsurface (MS) and microvascular (MV) structures in the gastrointestinal tract. A white globe appearance (WGA) is a small whitish lesion with a globular shape identified during ME-NBI. This study aimed to determine the association between WGA and clinicopathologic factors in early gastric cancer (EGC).

Methods The presence or absence of WGA of 135 patients (139 lesions) with EGC who underwent ME-NBI before endoscopic or surgical resection were prospectively collected and analyzed. During ME-NBI, the MS and MV patterns and the presence of WGA and white opaque substance (WOS) were investigated. EGC cases were categorized as differentiated- or undifferentiated-type and as mucosal, submucosal, or advanced.

Results A total of 122 patients (126 lesions) were included in the analysis after 13 patients without final histopathologic results were missing. WGA was observed in 25 lesions (19.8 %). WGA was associated with tumor location (upper third, 1/11 [9.1 %]; middle third 18/58 [31.0 %]; lower third, 6/57 [10.5 %]; $p = 0.017$), histologic type (differentiated type, 22/89 [24.7 %]; undifferentiated type, 3/37 [8.1 %]; $p = 0.033$), and tumor size (≤ 2 cm, 17/63 [27.0 %]; > 2 cm, 8/63 [12.7 %]; $p = 0.044$). Other clinicopathologic factors, such as sex, age, tumor color, macroscopic shape and tumor invasion depth, were not associated with WGA. Although WGA was observed more frequently in lesions with oval/tubular MS pattern, fine-network MV patterns, and absence of WOS, the difference did not reach to statistical significance (MS pattern, $p = 0.358$; MV pattern, $p = 0.212$; WOS, $p = 0.121$).

Conclusions WGA is frequently observed during ME-NBI for EGC and associated with a middle-third tumor location, differentiated-type histology, and small tumor size.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP211 One Day Bowel Preparation for Colon Capsule Endoscopy is as Efficacious as Traditional Split Prep Regimen and may Improve Patient Satisfaction and Therefore Compliance

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Aims The use of Colon Capsule Endoscopy (CCE) has increased widely in recent years. Successful visualisation and identification of pathology during CCE is contingent on good quality bowel preparation, while poor prep may result in repeat procedures and delayed or missed diagnoses. Traditionally people undergoing CCE are given similar bowel preparation to those undergoing colonoscopy (commonly 2L Poly-Ethylene Glycol (PEG)) split into 2x 1L doses, one consumed the day before the procedure, one consumed the morning of the procedure, both administered with a further 1L wter, referred to as Split Prep (SP). Patient reported satisfaction with morning doses of PEG have been variable, with travel inconvenience, early morning waking, and discomfort all having been reported as problematic. Complete bowel prep (2L PEG) on the day prior to colonoscopy has been shown to be equivalent to split prep for early morning procedures, however evidence of efficacy in CCE is lacking. We aimed to assess the efficacy of One Day Prep with the previous Split Prep protocol on CCE quality indicators.

Methods 85 sequential patients attending a tertiary hospital for morning CCE were prospectively assigned One Day Prep with 2L PEG (and PEG & castor oil boosters as per our unit protocol). Patient demographics were documented from the electronic patient record. CCE completion rates, diagnostic yield & Boston Bowel Preparation Score (BBPS) were collected. These results were retrospectively compared with a nested cohort of CCE patients attending the same institution in a 1:2 ratio from the previous 12 months who had received split PEG doses. A complete transit study was defined as passing the dentate line, adequate bowel preparation was defined as a BBPS score ≥ 5. Complete studies had both complete transit and adequate prep. Patients < 18 years, requiring special prep protocols or unable to fast for prolonged periods were excluded.

Results 85 patients prospectively received ODP. 51 (60 %) were female, mean age was 57 years. 73 (86 %) studies demonstrated complete transit, while 70 (82 %) had adequate prep (mean BBPS: 6.2). Overall, 62 (73 %) were complete studies, and the diagnostic yield was 46 %.

Outcomes were statistically similar in the SP cohort, n = 170, 101 (60 %) were female, mean age was 56. 141 (83 %) of studies demonstrated complete transit. 138 (81 %) of studies had adequate prep with mean BBPS = 6. (IQR 6-8). Overall 130 (77 %) of studies were complete. Diagnostic yield was 53 %. (Table 1.)

Conclusions These results show no statistically significant difference in the completion rate, bowel prep score or diagnostic yield between prep regimens for morning CCE. ODP should be considered for all patients undergoing morning CCE to aid with patient comfort, satisfaction and compliance.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP212 Colonoscopy Quality Improvement: An Audit on Bowel Preparation for Colonoscopy in a Surgical Unit of a Tertiary Care Hospital, Sri Lanka

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Aims This re-audit aimed to evaluate the impact of implemented changes on colonoscopy bowel preparation practices in a surgical unit of a tertiary care hospital in Sri Lanka, aligned with recommendations from the European Society of Gastrointestinal Endoscopy (ESGE) guidelines. The primary objective was to assess improvements in adherence to ESGE recommendations following the introduction of a protocol and educational initiatives.

Methods Conducted from May to July 2023 in the surgical unit, the initial audit identified deficiencies, prompting the development of a protocol based on ESGE guidelines. Educational initiatives for nursing and junior staff were implemented through presentations, and patient education materials were created. Changes included adjusting the split-dose regime timing, discontinuing routine enema use, and providing clear instructions to patients. A re-audit from August to October 2023 evaluated the impact of these interventions. Data collected through patient records were analyzed using descriptive statistics. [1]

Results The re-audit demonstrated substantial improvements in colonoscopy bowel preparation adherence to ESGE recommendations. The total number of patients undergoing the procedure was 88 in the initial audit and 96 in the re-audit. The percentage of patients following a low fiber diet increased from 22.72 % (n = 20) to 90.62 % (n = 87), adherence to enhanced instructions improved from 14.7 % (n = 13) to 70.8 % (n = 69), and routine enema use was eliminated (0 % to 100 %). Additionally, for split-dose preparation for elective colonoscopy, compliance increased from 42.04 % (n = 37) to 81.25 % (n = 78), and the timing of the last dose within 5 hours showed an improvement from 42.04 % (n = 37) to 81.25 % (n = 78). Specific instructions to patients and clinic staff also showed significant improvement, rising from 28.4 % (n = 25) to 97.9 % (n = 94).

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Furthermore, the risk assessment within 8 hours increased from 9.6 % (n = 7) to 38.6 % (n = 34).

Conclusions The re-audit highlights significant enhancements in colonoscopy bowel preparation practices, emphasizing the positive impact of changes introduced. These findings underscore the effectiveness of evidence-based guidelines, structured education, and continuous audits in optimizing patient outcomes. The study reinforces the importance of systematic improvements to enhance the quality of colonoscopy procedures, prevent unnecessary costs, and ensure steadfast adherence to guidelines in a healthcare setting.

In conclusion, the implementation of a checklist, staff education, and patient education has proven instrumental in achieving these notable improvements. These simple yet focused measures are essential in transforming and streamlining the quality of bowel preparation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP213V Trans-Gallbladder Biliary Rendez-Vous Procedure to Convert a Cholecystoduodenostomy to Transpapillary Drainage in Distal Malignant Biliary Obstruction

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Abstract Text Endoscopic ultrasound (EUS)-guided gallbladder drainage (GBD) is an effective rescue biliary drainage technique in distal malignant biliary obstruction after failed ERCP. However, the best strategy to deal with stent dysfunction is still unknown. We reported a case of a 64 years-old female with pancreatic head cancer and previous EUS-GBD with a lumen-apposing metal stent (LAMS) who presented with cholangitis secondary to stent obstruction. After endoscopic stent cleansing, direct cholecystoscopy was performed through the LAMS. Internal cystic duct orifice was visualized and cannulated, and a guidewire was advanced into the duodenum across the biliary stricture and the papilla. After endoscope exchange, biliary cannulation with a duodenoscope and parallel rendez-vous technique was performed, and a self-expanding metal stent (SEMS) was placed for long-term transpapillary drainage.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/6b29ac5f-8ef9-4e2b-8e58-db8c56ca145e/Uploads/13821_GBD-RV_Final.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP214 Optimizing Nutrition in Pediatric Neuromuscular Disorders: The Role of Percutaneous Endoscopic Gastrostomy

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Aims Enteral nutrition (EN) has emerged as a pivotal intervention in managing the nutritional needs of pediatric patients with neuromuscular and neurological diseases. These conditions often lead to significant challenges in oral intake, necessitating an effective and safe alternative to ensure adequate nutrition. When long-term nutrition is required, current medical guidelines recommend the use of a gastrostomy or enterostomy tube to maintain nutritional support. The primary aim of our study is to assess the effect of PEG on the nutritional status of pediatric patients with rare neuromuscular and neurological disorders, while the secondary objective is to evaluate the incidence and severity of related complications.

Methods Retrospective study, conducted at a tertiary care center. Inclusion criteria were patients under 18 years diagnosed with neuromuscular and neurological diseases, requiring PEG for long-term nutrition. Demographic, clinical, laboratory, and endoscopic data were systematically collected at the time of the PEG procedure, as well as at 3-, 6-, and 12-months post-operation, and annually during follow-up until last follow-up. Growth parameters and nutritional markers were monitored, with z-scores for weight, height, and BMI calculated using World Health Organization standards.

Results The cohort comprised 40 pediatric patients, with a median age of 17 months (IQR 7-153). The most prevalent diagnosis was Spinal Muscular Atrophy, followed by Duchenne Muscular Dystrophy and other less prevalent neurological diseases. Over a median follow-up of 35.5 months (IQR 349.5-1541.5), significant nutritional improvements were observed in children over 2 years (table 1). Laboratory findings supported these outcomes, showing increased hemoglobin at all measured intervals and improved albumin levels at the 6-month evaluation (table 2). Three patients (7.5 %) required a transition to a Gastro-jejunal tube due to the development of gastroesophageal reflux disease. There were three (7.5 %) major adverse events associated with the endoscopic procedure: two cases (5 %) of buried bumper syndrome and one (2.5 %) translocation of the internal bumper to the transverse colon.

Conclusions The study demonstrates the effectiveness and safety of PEG in enhancing nutritional outcomes among pediatric patients, particularly those with rare neuromuscular and neurological conditions, with marked benefits observed in those aged over 2 years.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP215 Patency testing prior to Video Capsule Endoscopy: An Irish Experience

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Aims Capsule retention, a rare but significant complication of Video Capsule Endoscopy (VCE), occurs in 1-2 % of patients [1, 2], depending on indication [3, 4].

Patency Capsules (PC) are dissolvable radio-opaque capsules which assess GI tract patency & effectively identify patients with retention risk [5]. ESGE recommends PC prior to VCE in certain conditions [6]. Our aim was to assess PC protocols in use & the factors affecting outcomes across Ireland.

Methods Procedural data: VCE & PC Indication, Local protocols & Success rates were collected retrospectively from 5 tertiary centres. Demographics & Radiological results were collected from the electronic patient record and analysed using appropriate statistical analysis.

Results 364 procedures were reviewed. 212 (58 %) were female, mean age = 48 years. VCE indications: Suspected IBD 115 (34 %), IBD assessment 82 (24 %), IDA/GI Bleeding 62(20 %), Low Risk Symptoms 33 (10 %), Abnormal Imaging 15 (4 %).

PC indications: GI Surgery 68 (20 %), Known Crohn's 72 (21 %), Obstructive Symptoms 52 (15 %), Stenosis on Imaging 33 (10 %), NSAIDs 30 (9 %).

81 Patients (23 %) did not have valid PC indication per ESGE guidelines.

Overall, 77 patients (21 %) were fasted. 184 (51 %) Passed (Mean age = 49, 53 % female). Another 32 (10 %) proceeded to CE despite 'failure'.

Age, Gender & Fasting were not predictors of PC passage (p = 0.4126, p = 0.2032, p = 0.4441). Pass rates were similar in all centres (X^2 = 7.3.647, p = 0.66733). Analysis of pass rate by VCE indication (X^2 = 13.354, p = 0.639) and PC indication (X^2 = 7.86, p = 0.2482) also failed to show significance.

Conclusions There are similar completion rates for PC across Ireland, and for Age, Gender and PC/VCE indication. This is surprising as we know transit time slows with age.

Fasting does not appear necessary for PC.

Similar completion rates for patients with a valid ESGE PC indications and without, likely represents a high false negative rate. We recommend the introduction of 3D imaging to accurately assess location & increase PC pass rate.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP216 Collagenous gastritis: an underdiagnosed cause of abdominal pain

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Abstract Text Collagenous gastritis is a rare disease with nonspecifc presentation, often misdiagnosed. The clinical characteristics, endoscopic, and histopathologic features, and treatment outcomes have not been well defined.

Case: 15-year-old male with abdominal pain, vomiting and weight loss without previous patologies. Lab tests including serology for celiac disease and porphyrias with normal results. Abdominal ultrasound with retrocecal appendix without inflammatory signs. Upper gastrointestinal endoscopy with irregular and erythematous nodular mucosa with depressed areas in the body and gastric antrum. Histology with patchy presence of a thick and irregular band of subepithelial collagen that traps inflammatory cellularity. Oral budesonide 9 mg/day was started with clinical improvement after two months, pending endoscopic control. [1–5]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP217 Endoscopic submucosal dissection at a high-level center in the Tenerife south healthcare area. Our experience since 2016

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Aims Endoscopic Submucosal Dissection (ESD) is the first treatment option for preneoplastic lesions and neoplasms with low risk of lymphatic invasion in the gastrointestinal tract, providing a less invasive alternative to conventional surgery.The purpose of the study was to evaluate the outcomes of patients undergoing ESD in our unit since the implementation of this endoscopic technique in 2016.Our main objective was to analyze the safety and effectiveness of the ESD technique in our center. Our secondary objective was to perform a comparative assessment of the technique over two time periods.

Methods Observational and retrospective study in which a total of 126 procedures involving endoscopic dissection of gastrointestinal lesions were recorded between May 2016 and May 2023.Demographic, clinical, histological, and endoscopic variables were documented. A comparative analysis was performed using non-parametric statistical tests to assess two periods (2016-2019 and 2020-2023) with the SPSS software. The statistical significance level for all analyses was set at p < 0.05. [1–5]

Results A total of 126 procedures were included, corresponding to 122 patients. The mean age was 67.7 years (SD = 9.46). An anesthetist provided sedation in 82.5 % of the procedures, with 93 % of them being performed in the endoscopy box.Within the proximal digestive tract, 2 lesions were described in the esophagus (1.6 %), 8 in the stomach (6.3 %), and at the distal level, the majority of them were found in the ascending colon and rectum (42.8 %). 35.7 % of the lesions were slightly elevated (0-IIa, Paris classification). 60 patients (48 %) presented a KUDO IV crypt morphology. The average size of the major diameter of the resected lesions was 43 mm. En-bloc resection was performed in 50.8 % of cases. Histological examination reported R0 margin resection in 53.6 % of cases. Of all lesions, 53.2 % were tubular adenomas with some degree of dysplasia, 31.5 % were in situ carcinomas, and only one case was an infiltrating carcinoma (0.8 %). Among the intraprocedural complications, the most frequent was microperforation (N = 21 16,7 %). And among the deferred, perforation (N = 8, 6.4 %) followed by bleeding (N = 7, 5.6 %). In subgroup analysis between the time periods 2016-2019 and 2020-2023, the average dissection time was 182.68 minutes and 135.28 minutes (p < 0.001), with an en-bloc resection rate of 50 % and 51.2 % (p 1) and histological R0 margin report of 43.9 % and 58.3 % (p 0.18), respectively.

Conclusions ESD offers significant benefits compared to conventional surgery. However, the technique is not without challenges, such as the risk of perforation and bleeding. In our sample, no significant difference is observed regarding R0 vs R1 resection, likely influenced by the presence of electrocoagulation artifacts at the edges of the resected sample. A trend toward overtreatment has been observed, with advanced techniques applied to low-grade malignancy lesions. However, these findings will need to be confirmed with subsequent studies.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP218 Assessing dysplasia/cancer in large non-granular and homogenous granular laterally spreading tumors: Optical evaluation versus forceps biopsy

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Aims Evaluate the precision of dysplasia/cancer detection using forceps biopsy(FB) compared to optical evaluation methods for homogenous granular and non-granular subtypes of large laterally spreading tumors (LSTs), aligning their outcomes with histopathological findings.

Methods The study comprised 57 patients with LST with a diameter ≥ 20mm, type 0-IIa, 0-Is or IIa + IIc in accordance to Paris Classification. Patients with invasive cancer were excluded. Group I omitted 27(47,4 %) patients with a non-granular subtype LST(LST-NG) and Group II 30(52,6 %) patients with a homogenous granular LST(LST-G-H). An expert endoscopist conducted optical evaluations using chromoscopy and NBI, followed by FB and endoscopic resection. Findings were compared with specimen histopathology using Chi-square tests, Wilson intervals, and descriptive statistics via Statistica 13. [1–4]

Results Median ages were 66 ± 11.5 and 68 ± 9.9 years for Groups I and II, respectively. Median lesion size was 25 ± 6.5mm for Group I and 20 ± 15.1mm for Group II. Most lesions were removed via EMR (47.4 % en bloc, 42.1 % piecemeal). Few underwent ESD (7 %) or hybrid ESD (3.5 %). In LST-NG group, FB sensitivity was 84.6 % (95 % CI, 61.9 %-96.5 %), while optical evaluation showed 92.3 % (95 % CI, 71.6 %-99.7 %). In LST-G-H group, sensitivity was 88.5 % (95 % CI, 80.6 %-94.3 %) for FB and 84.6 % (95 % CI, 74.6 %-91.6 %) for optical evaluation. Forceps biopsy specificity was 100 % in both groups, while optical evaluation showed 92.9 % specificity (95 % CI, 70.2 %-99.7 %) in the first and 100 % in the second group. P < 0.05 in all cases.

Conclusions Given the similar sensitivity of optical evaluation and forceps biopsy and the excellent performance of optical evaluation in flat lesions, routine biopsy sampling for large flat LSTs before endoscopic removal is not advised.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP219V Giant idiopathic esophageal ulcer as an initial manifestation of HIV infection

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Abstract Text HIV-associated idiopathic esophageal ulcers may be more prevalent than initially believed. We present a 30-year-old woman with a recently diagnosed HIV infection and dysphagia. Gastroscopy revealed a 3 cm deep esophageal ulcer. Following the exclusion of infectious pathogens and malignancy, the diagnosis of an HIV-associated idiopathic esophageal ulcer was established [1]. The patient experienced an unfavorable initial course, with the ulcer affecting the entire circumference and extending up to 7 cm. After an adequate response to antiretroviral therapy, complete healing of the ulcer was achieved, revealing a residual inflammatory stenosis measuring 7 cm in length and 3 mm in diameter [2]. Due to severe malnutrition, a percutaneous endoscopic gastrostomy was implemented pending endoscopic treatment. Esophageal ulcers may be considered as an initial manifestation of HIV [3].

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/73426207-9582-4371-af53-343d3ddd7a72/Uploads/13821_HIV-associated_idiopathic%20esophageal%20ulcer.mov

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP220 The possibility of obtaining good quality and quantity RNA from EUS-FNA samples of PanNENs: a prospective study

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Aims The biological progression of pancreatic neuroendocrine neoplasms (PanNENs) is significantly influenced by their grading and staging. Endoscopic ultrasound (EUS) preoperative grading of PanNENs, crucial for patient prognosis, often relies on EUS-guided biopsies. However, variations in methodologies across studies have led to inconsistent agreement rates between EUS assessments and final surgical findings, especially regarding the Ki-67 index. This inconsistency underscores the need for improved diagnostic techniques in EUS, a challenge addressed by integrating new technologies and advancing precision medicine through genomic analyses. The purpose of this subproject is to evaluate the feasibility of extracting RNA in sufficient quantity and quality to perform genomic analyses from specimens obtained through EUS-fine needle aspiration (EUS-FNA) of PanNENs, comparing three methods of RNA preservation and extraction.

Methods This study prospectively evaluated patients undergoing EUS for suspected PanNENs. A uniform biopsy procedure using a 25-gauge Menghini needle with a slow-pull technique was applied. Sample adequacy was assessed on-site by a cytopathologist. For cases deemed adequate and suspicious of malignancy, an additional biopsy was performed, and RNA preservation and extraction were conducted using three distinct methods: Snap frozen plus Trizol, Fresh tissue plus 1-Thioglycerol buffer solution, and Snap frozen followed by 1-Thioglycerol buffer solution. RNA integrity and concentration were measured using the 2100 Bioanalyzer.

Results The study included 37 PanNEN patients, predominantly male (62.2 %), with a median age of 59 years. The median Ki67 proliferation index was 2 %, with most tumors graded as G2 (62.2 %). RNA extraction yielded a median global RNA concentration of 11,000 pg/ul, and the median RNA Integrity Number (RIN) was 3.7. Method 1 (Snap Frozen + Trizol) resulted in the highest median RNA concentration, while Method 3 (Snap Frozen plus 1-Thioglycerol buffer solution) produced the highest median RIN value. Significant differences were observed between the methods in terms of RNA concentration and RIN. Univariate linear regression analysis considering various patient and tumor characteristics found no significant associations with RNA quantity or quality.

Conclusions Successfully extracting high-quality RNA from EUS-FNA samples of PanNENs represents a significant advancement in the molecular profiling of these tumors. The extraction method that best conjugate good RNA quality and quantity is fresh tissue plus 1-Thioglycerol buffer solution, and Snap frozen followed by 1-Thioglycerol buffer solution. RNA integrity and concentration. This development is crucial in the context of modern oncology, where molecular characterization increasingly informs treatment and prognostic evaluations. The study's findings open new avenues for personalized medicine approaches in PanNEN management.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP221V Are single use endoscopes suitable for therapeutic endoscopy?

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Abstract Text If single-use gastroscopes (SUG) can be used in diagnostic and therapeutic procedures, and if their environmental impact decreases, their role in clinical practice may increase. We present the use of SUGs in 2 advanced therapeutic procedures. A 56-year-old patient had a subepithelial lesion in the esophagus with inconclusive EUS and biopsies. The ESD was performed using a SUG, the pathology analysis revealed a leiomyoma. A 63-year-old patient with Barrett's esophagus had metaplasia and suspicious of rhabdomyoma on biopsies. Multiband EMR was performed using a SUG. The pathology was benign. There were no adverse events. SUG were effective in these 2 advanced endoscopic procedures. Due to their safety profile and technical performance, SUGs might be useful in different clinic and logistic contexts.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/0a9bac27-72d3-4785-a86f-cca2f092b24c/Uploads/13821_ESGE_2024%20single%20use%20endoscopes.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP222 Technology of surgical endoscopy for gallbladder pathology

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Aims To study the effectiveness of the combined technology of organ-preserving surgical endoscopy for gallbladder (GB) pathology.

Methods We analysed the results of endosurgical treatment of 134 patients with pathology of the GB (January 2014 to November 2023): cholelithiasis in 112 cases, combination of cholelithiasis with cholesterol polyps of the GB in 16 cases, single polyps of the GB in 6 cases. The main selection criterion was ultrasonography with determination of the structure, signs of active inflammation and motor function of the GB, mobility of gallstones, polyps without invasion into the GB wall. The technology of the operation included laparoscopic access to the GB using three trocars. Cholecystotomy with electrocoagulation in the area of the GB bottom was performed. Bile aspiration with subsequent sanation of the GB cavity was performed. For revision and manipulation in the GB cavity a flexible endoscope of 5 mm diameter with a working channel of 2 mm was used, which was carried out through a trocar. Lithoextraction was performed using a Dormia basket with the size of 10 mm and 30 mm. Polypectomy loops of 10 mm size, hot biopsy forceps, coagulation electrode were used during polyp removal. The integrity of the GB wall was restored intracorporeally with continuous precision sutures using monofilament absorbable suture. In the postoperative period, a rehabilitation programme was prescribed to prevent recurrence of gallstones.

Results All patients underwent organ-preserving operations on the GB – endoscopic cholecystolithoextraction (n = 112), cholecystolithoextraction with cholecystopolypectomy (n = 16), cholecystopolypectomy (n = 6) under laparoscopic control. The number of removed gallstones ranged from 1 to 80 with sizes ranging from 2 to 30 (17.6 ± 3.2) mm in diameter. In 22 cases after lithoextraction at endoscopic revision of the GB cavity small gallstones 0.5-1 mm in diameter were diagnosed in the mucous membrane folds, which were removed during sanation through the endoscope channel. In 16 cases, besides lithoextraction, cholesterol polyps 3-6 mm in size were removed. In 4 cases single inflammatory polyps of 10-14 mm in size were removed. In 2 cases single adenomatous polyps of 12 and 16 mm were removed. The polyps were histologically verified. Duration of operative intervention was 80-145 (90.26 ± 18.10) min.

True recurrence of gallstones within the period from 6 months to 10 years was diagnosed in 8 (7.8 %) out of 106 (82.8 %) examined patients. The causes of recurrence were the development of cholestasis due to acquired metabolic syndrome, hormonal dysfunction, viral hepatitis, covid-19. No recurrence of polyps was noted.

Conclusions 1. The technology of organ-preserving surgical endoscopy is the optimal way to treat gallstones and polyps of the GB. 2. Endoscopic revision of the GB cavity allows to detect and remove gallstones from the mucosal folds not diagnosed by ultrasonography. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP223 The Role of Ethnicity in Determining IBS Incidence in Bariatric Surgery Recipients

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Aims Bariatric surgery emerges as a powerful intervention for obesity, promoting enhanced metabolic health. However, substantial evidence indicates a rise in Irritable Bowel Syndrome (IBS), primarily following such surgical interventions. The effect of race on the occurrence of IBS after surgery has yet to be investigated. Given the widespread occurrence of IBS and its confirmed connection to bariatric surgery, examining the effect of racial disparities is crucial. This study seeks to ascertain whether racial differences impact the probability of an individual developing IBS post-bariatric surgery. Revealing this relationship is vital for improving patient results and optimizing postoperative care.

Methods We executed a retrospective study to analyze patients who underwent bariatric surgery at our facility between 2009 and 2022. Data about comorbidities, insurance statuses, surgical techniques, colonoscopy and pathology reports, and initial patient attributes were collected through ICD and CPT codes. Patients who developed IBS post-surgery were monitored until 2023 and categorized by gender, race, and duration post-surgery. We used propensity score matching to balance baseline characteristics. Participants with a previous diagnosis of IBS were excluded from the study. Kaplan-Meier survival analysis and Cox proportional hazards models were leveraged to examine the onset of IBS among different racial groups. Additionally, odds ratios were employed to discern independent variables influencing the study outcomes.

Results Between 2009 and 2022, 960 bariatric surgeries were performed at our institution. Of these, 39 patients, equating to 0.04 %, were diagnosed with IBS, typically around 40 ± 9.2 months post-surgery. The subjects' average age was approximately 39 ± 8.7 years, with females constituting 51.2 % of the participants. Regarding racial breakdown, 29.2 % were African Americans, 33.5 % were Whites, 21.8 % were Hispanics, and 15.5 % were Asians. Notably, White patients manifested symptoms of IBS significantly earlier compared to other racial groups (Breslow: 12.46, $p = 0.015$). Additionally, a heightened risk of IBS was observed among individuals with lower educational attainment (OR: 1.25, $P = 0.025$).

Conclusions This research aims to bridge the prevailing knowledge void relating to the influence of race on the emergence of IBS following bariatric surgery. Our retrospective analysis of 960 surgeries from 2009 to 2022 highlighted a 0.04 % occurrence of IBS, generally identified around 40 months after surgery. Notably, White patients experienced the onset of IBS in considerably less time than other racial groups, with individuals with lower educational levels exhibiting increased risks. These insights emphasize the critical importance of considering racial and other sociodemographic elements in refining postoperative care. Continually exploring this field is vital to develop strategies to alleviate such risks, intending to improve health results among varied patient demographics.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP224 The Effectiveness of YouTube as a Resource for IBS Patients: Awareness and Treatment Insights

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Aims This research delves into the impact of YouTube videos from academic and private sources on understanding Irritable bowel syndrome (IBS). While academic platforms usually offer evidence-based and scientifically verified information, private sources may lack rigorous quality controls and could be more anecdotal or commercial. Due to YouTube's widespread influence and absence of formal editorial review, there's a risk of misinformation proliferating. These content quality and credibility inconsistencies can significantly affect patient education and treatment outcomes for Irritable Bowel Syndrome.

Methods We searched YouTube using the keywords "Inflammatory Bowel Syndrome" and "IBS" to identify relevant videos. Those not in English, irrelevant to the topic, or lacking audio were omitted. We collected various attributes of the videos, such as the number of views, likes, dislikes, comments, and the source's nature (academic or private). Subsequently, these videos were classified as reliable or unreliable based on their scientific accuracy. Assessment tools like DISCERN, Global Quality Score (GQS), and the Patient Education Materials Assessment Tool (PEMAT) were employed to evaluate the quality of the videos. The consistency among seven researchers in using these evaluation tools was measured through intraclass correlation.

Results We analyzed 91 YouTube videos, of which 49 were academic (54.9 %) and 42 were private (45.1 %). Academic videos surpassed private ones in various quality metrics, including DISCERN scores (90 ± 11.5 vs. 60 ± 9.07, $p = 0.038$), Global Quality Scores (4.6 vs. 3.2, $p = 0.011$), and PEMAT ratings (4.1 vs. 2.2, $p = 0.022$). Moreover, we observed a positive association between academic videos and user engagement indicators such as the number of likes (Odds Ratio: 0.65, $P < 0.011$), subscribers (Odds Ratio: 0.78, $P < 0.0001$), and views (Odds Ratio: 1.32, $P < 0.05$).

Conclusions Our study reveals significant disparities in the quality of YouTube videos focused on Irritable Bowel Syndrome. Academic videos consistently outperformed private ones in measures of accuracy and reliability, as shown by higher DISCERN, Global Quality Score, and PEMAT ratings. Furthermore, academic videos were positively correlated with user engagement metrics like likes, subscribers, and views. These findings highlight the need to direct patients toward academically-supported information to minimize the risk of encountering misinformation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP225 Innovative Approaches to IBS: Assessing the Impact of ChatGPT and Google Bard in Modern Healthcare

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Aims Artificial Intelligence (AI) has significantly revolutionized healthcare, particularly in diagnosing and treating Irritable Bowel Syndrome (IBS) and various digestive ailments. Vital AI resources, like ChatGPT and Google Bard, can decode endoscopic images, scrutinize various samples, ease administrative tasks, and aid in evaluating medical ideas and automating devices. These AI solutions have remarkably improved the handling of digestive diseases by personalizing treatments and predicting unfavorable responses. Incorporating these advanced AI methodologies enables patients to make informed decisions by considering personalized treatment options

Methods This study aimed to assess the accuracy of two prevalently utilized chatbots, ChatGPT, and Google BARD, in addressing inquiries associated with medical management. Both bots were assigned a set of questions to respond to, and their answers were rated on a 1-10 Likert scale, where 1 represented high accuracy. To maintain an unbiased evaluation, the responses from each bot were reviewed by two independent assessors. The intention behind this investigation was to shed light on the capabilities of these chatbots by methodically evaluating their effectiveness and reliability in terms of accuracy. The deployment of two reviewers and the application of the Likert scale methodology served to reduce potential biases, validating the results

Results Our research contrasted the effectiveness of ChatGPT and Google BARD in the realm of medical management. ChatGPT exhibited predominant

proficiency, securing 59 % accuracy compared to 27 % by Google BARD (p = 0.041), and 51 % against 24 % in the trustworthiness of medical information (p = 0.011). This study emphasizes the crucial significance of precision and dependability in developing IBS chatbots. Although ChatGPT displayed notable outcomes, indicating its potential as a reliable source, it also accentuated the urgent requirement for continual exploration and progress in this field

Conclusions AI has markedly restructured healthcare, especially in assisting with diagnosing and handling IBD. ChatGPT and Google Bard are essential AI instruments capable of interpreting medical imagery, examining samples, and refining tasks. Our study scrutinized these chatbots' accuracy and reliability within the medical management domain. ChatGPT outperformed Google Bard, achieving 59 % in accuracy and 51 % in the reliability of information. Although ChatGPT demonstrates considerable promise as a dependable AI tool in IBS management, the findings also highlight the ongoing need for research and development in this sector.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP226 Navigating the Digital Landscape: Assessing YouTube's Role in Ulcerative Colitis Education and Awareness

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DOI 10.1055/s-0044-1783515

Aims This study examines the varying impact of YouTube videos on Ulcerative Colitis (UC) from academic and private institutions. While academic channels offer evidence-based, scientifically vetted information, private sources may lack rigorous scrutiny and sometimes prioritize commercial or anecdotal content. With YouTube's massive user base, the absence of an editorial process can result in misinformation. This discrepancy in content quality and credibility can significantly affect patient education and treatment outcomes for UC.

Methods We conducted a search on YouTube using the keywords "Ulcerative Colitis" and "UC IBD" to identify relevant videos. Exclusions were made for videos that were not in English, irrelevant, or lacked audio. We documented various video attributes such as views, likes, dislikes, comments, and the nature of the source (academic or private). The videos were then classified as reliable or unreliable based on the scientific accuracy of their content. We employed DISCERN, Global Quality Score (GQS), and the Patient Education Materials Assessment Tool (PEMAT) to evaluate video quality. The consistency among seven investigators in applying DISCERN, GQS, and PEMAT was measured using intraclass correlation.

Results We reviewed 21 YouTube videos that appeared in the search results, of which 11 (52.3 %) were academic and 10 (47.6 %) were private. Academic videos received higher DISCERN scores than private ones (31 ± 7.5 vs. 23.64 ± 5.07, p = 0.018). The Global Quality Score was also higher for academic videos (3.9 vs. 2.2, p < 0.01), as was the PEMAT score (4.1 vs. 2.7, p = 0.022). Furthermore, academic videos were found to have a positive correlation with the number of likes (OR: 0.75, P < 0.001), subscribers (OR:0.68, P < 0.0001), and views (OR:1.52, P < 0.001).

Conclusions Our study reveals significant quality discrepancies in YouTube videos on Ulcerative Colitis. Academic sources consistently outperformed private ones in accuracy and reliability, as indicated by higher DISCERN, Global Quality Score, and PEMAT ratings. The data also showed a positive correlation between academic sources and user engagement metrics like likes, subscribers, and views. These findings highlight the necessity of directing patients to academically-backed information to minimize the risk of misinformation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP227 Unraveling the Connection: Racial Influence on the Development of Ulcerative Colitis After Bariatric Surgery

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DOI 10.1055/s-0044-1783516

Aims Bariatric surgery is an effective treatment for obesity and aids in enhancing metabolic health. However, it has been observed that there's a heightened occurrence of Ulcerative Colitis (UC), especially following Roux-en-Y gastric bypass surgery. Despite these findings, the impact of race on the incidence of UC post-surgery has not been investigated. Given the prevalence of Ulcerative Colitis and its established connection to obesity, it is crucial to examine the effects of race. This study aims to ascertain whether racial differences influence the risk of developing Ulcerative Colitis in patients who have undergone bariatric surgery. Illuminating this relationship is key to improving patient outcomes and refining care following surgery.

Methods Our retrospective analysis reviewed patients who underwent bariatric surgery at our facility between 2009 and 2022. We collected data concerning comorbidities, insurance statuses, types of surgical procedures, colonoscopy, pathology reports, and baseline characteristics, employing ICD and CPT codes. We monitored patients who manifested Ulcerative colitis (UC) after surgery until 2023, categorizing them by gender, race, and the time elapsed. To balance baseline characteristics, we used propensity score matching. Patients with a history of UC before surgery were omitted from the study. We utilized Kaplan-Meier survival analysis and Cox proportional hazards models to determine the timing of UC onset across different racial groups. We applied odds ratios to discern independent factors impacting the study's outcomes.

Results Between 2009 and 2022, our facility performed 960 bariatric surgeries. Of these procedures, 24 patients (or 0.02 %) were diagnosed with UC, typically identified around 80 ± 14.2 months post-surgery. The mean age of the participants was approximately 46 ± 11.8 years, and females constituted 54.2 % of the cohort. When examining racial breakdowns, 38.39 % were African Americans, 24.4 % were whites, 21 % were Asians, and 16.21 % were Hispanics. Notably, Hispanic patients manifested UC within a considerably shorter duration than other racial groups (Breslow: 11.836, p = 0.022). Additionally, a heightened risk of UC was observed among individuals from the lowest income bracket (OR: 3.15, P = 0.041), emphasizing the influence of socioeconomic status on health outcomes.

Conclusions This research contributes to bridging the knowledge deficit regarding the influence of race on the occurrence of UC following bariatric surgery. Our retrospective examination of 960 surgeries from 2009 to 2022 indicated a 0.02 % incidence of UC, usually identified approximately 45 months after surgery. Importantly, Hispanic patients experienced the onset of UC in a notably shorter period compared to other racial groups, with those in lower income brackets encountering elevated risk levels. These observations highlight the critical role of racial and socioeconomic elements in refining care after surgery. Continued studies in this domain can facilitate the development of interventions to diminish these risks.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP228V Giardia-Associated Duodenal Stricture

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Abstract Text A 71-year-old male was diagnosed with common variable immunodeficiency (CVID) on immunoglobulin therapy.For several years he had mild intermittent chronic diarrhea.HIV,HLADQ2/DQ8, stool culture and Clostridoides difficile testing were negative.The second part of the duodenum re-

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vealed circumferential ulceration and cicatrization of the mucosa.Histopathology confirmed duodenal mucosa with subtotal villous blunting, architectural distortion,and moderate to severe acute inflammation,with copious Giardia lamblia trophozoites present.Giardia duodenalis is a common infection in individuals with CVID that can be associated with chronic inflammation leading to the complication of duodenal strictures.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/9c691f51-302e-4bc0-a41e-b328439f33f2/Uploads/13821_CVID_Enteropathy.mp4

Conflicts of interest SCG-Research grants and personal fees from AbbVie and Ferring Pharmaceuticals, personal fees from Takeda, Sanofi, and BioJAMP, education grants from Janssen, and has equity in Volo Healthcare.

eP229 Eosinophilic esophagitis patients diagnosed with food impaction show a paucisymptomatic disease course: a cross-sectional single-center study

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Aims Eosinophilic esophagitis(EoE) is a chronic, T-helper type 2 immune-mediated esophageal disease, that often arises with food impaction(FI). Dysphagia and gastroesophageal reflux-like(GER-like) symptoms are other frequent causes of EoE diagnosis, as well. Clinical presentation and endoscopic-histological features between EoE patients diagnosed with and with no FI(NFI) have not been assessed, so far.

Methods A cross-sectional study was conducted on consecutive adult EoE patients(April-October 2023). Patients were grouped into: i) FI patients, diagnosed during emergency endoscopy, and ii) NFI patients, referred for dysphagia, or GER-like symptoms (i.e. heartburn, regurgitation, retrosternal pain). Symptoms were evaluated according to a structured-questionnaire. Patients underwent gastroscopy with at least 6 biopsies from distal and medium/proximal esophageal third. EoE was diagnosed if eosinophils were ≥ 15/high power field, in any biopsy. The main features were compared between FI and NFI patients in univariate analysis.

Results Twenty EoE patients were included [(males 65 %, median-age 34(20-57) years, median-BMI 25(21-34) Kg/m^2]. Patients with FI(8/20; 40 %)[males 75 %, median-age 34(20-46) years] and patients without FI (12/20; 60 %) [males 66.6 %, median-age 33.5(22-57) years] did not differ in terms of age, gender, BMI. The occurrence of dysphagia, atopy, and the use of PPIs prior to EoE diagnosis, were not statistically significant between FI and NFI groups [(75 % vs 91.6 %, p = 0.54), (37.5 % vs 58.3, p = 0.65), and (62.5 % vs 83.3 %, p = 0.35),respectively]. GER-like symptoms before EoE diagnosis were significantly less frequent in FI compared to NFI patients (25 % vs 83.3 %, p = 0.02). The mean EREFS score was significantly higher in the FI than in the NFI group [5.75(DS ± 1.58) vs 2.92(DS ± 2.07), p = 0.002]. According to the EREFS score, fibrostenotic (based on Rings and Strictures scores) and inflammatory (based on Edema, Exudates, and Furrows scores) phenotypes, were both significantly higher in the FI than in the NFI group [3.38(DS ± 0.92) vs 1.916(DS ± 0.792), p = 0.02) and 2.38(DS ± 0.74) vs 1.08(DS ± 1.62), p = 0.001,respectively]. FI patients presented a higher eosinophilic peak (> 50 eosinophils/HPF) than NFI patients (87.5 % vs 41.7 %, p = 0.06) at the third distal.

Conclusions EoE patients presented with food impaction, despite the more severe disease presentation, show a paucisymptomatic disease course before EoE diagnosis, compared to patients without FI, suggesting a possible reason for the diagnostic delay.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP230 Quality assessment of endoscopic image capture and impact on decision making in a complex polyp multidisciplinary team meeting

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DOI 10.1055/s-0044-1783519

Aims Endoscopic resection strategies are becoming increasingly complex for colorectal polyps. Decision making relies significantly on post procedure captured endoscopic images presented at multidisciplinary team (MDT) meetings, however image quality assessment has not been reported in the literature. This study assessed the quality of image capture in a tertiary centre, complex polyp MDT, and evaluated impact on decision making.

Methods Polyp MDT referrals were reviewed retrospectively over a 6-month period at a single academic centre. Those requiring interpretation of endoscopic imaging of polyps were assessed by two members of the MDT, after initially establishing consensus on a minimum acceptable standard for image quality criteria.

Results A total of 100 polyp referrals were identified. The reasons for referrals were polypectomy planning (77 %) or post resection histology (23 %). The majority of referrals were made by interventional endoscopists (38 %), followed by trainees (31 %), gastroenterology consultants (18 %), nurse endoscopists (8 %) and surgical consultants (5 %). The predominant polyp location was rectum (33 %) and sigmoid (21 %), followed by ascending colon (15 %), caecum (11 %), rectosigmoid (8 %), descending (6 %), transverse (5 %) and anal verge (1 %). The majority of polyps were greater than 20mm (53 % > 20mm, 36 % 10-19mm, 7 % < 10mm, 4 % unknown). Paris classification was not specified in 21 % of referrals, and 19 % had no documented optical diagnosis. In 31 % of cases, image quality was deemed suboptimal and negatively impacted on resection strategy decision making at the MDT. Surgical endoscopists and trainees were the most likely to make a referral with suboptimal image quality; 60 % of surgical endoscopist referrals and 37 % of trainee referrals had suboptimal image quality and negatively impacted on MDT decision making.

Conclusions To our knowledge, this is the first reported assessment of image quality at a complex polyp MDT. A significant proportion of images were deemed suboptimal and negatively impacted on resection strategy decision making. Quality improvement initiatives are needed to promote high quality image capture standards, particularly for complex polyps. Initiatives could include dedicated training and competency assessments. Emerging endoscopic video recording platforms and AI assisted image capture software could offer novel solutions.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP231 Clinical Profile of Gastric Subepithelial Lesions Measuring 1–2 cm

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DOI 10.1055/s-0044-1783520

Aims This study aimed to determine the optimal clinical approach for gastric SELs measuring 1–2 cm.

Methods Between July 2011 and August 2022, we conducted a follow-up of gastric SELs ranging in size from 1–2 cm. We reviewed gastroscopy and endoscopic ultrasound (EUS) findings, as well as management approaches including abdominal computed tomography (CT), biopsy outcomes, and long-term follow-up records.

Results This study included 648 individuals with endoscopically identified gastric SELs. Among them, 87 participants (mean age 57.1 ± 10.6 years; female 60.9 %) had SELs sized 1–2 cm and underwent further assessment or follow-up.

The mean endoscopic dimension measured 13.7 ± 3.3 mm. Within this group, 56 underwent EUS, and 49 had abdominal CT scans. Initially, 47 patients underwent biopsy, and eight opted for immediate tumor resection. Among the 52 patients with confirmed tissue diagnosis, 25 (48 %) had gastrointestinal stromal tumor (GIST). The mean size of GIST-confirmed lesions was 15.7 ± 2.9 mm; however, post-resection measurements indicated an increase of 1 cm beyond expectations. The most common location for GISTs was the fundus (16 cases, 64 %), with the majority classified as low risk upon final pathology assessment. Notably, three GISTs exhibited moderate-to-high-risk features, including one lesion measuring 0.9 cm based on pathology. The median follow-up duration for 35 subjects without confirmed diagnoses was 55 months (range; 43–115). Among them, two patients each underwent endoscopic or wedge resection due to size increment, respectively, both resulting in was low-risk pathology findings. [1]

Conclusions About half of gastric SELs measuring 1–2 cm in size were identified as GISTs, with the additional presence of moderate-to-high risks. It is advisable to closely monitor SELs located in the upper stomach, particularly those exceeding 1.5 cm, within a short-term timeframe.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP232 Is capsule endoscopy endoscopic placement essential in patients with previous gastroenteric surgery?

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DOI 10.1055/s-0044-1783521

Aims Evaluate the rate of complete examinations of small bowel capsule endoscopy (SBCE) in patients with previous gastroenteric surgery, as well as the impact of SBCE endoscopic placement using the AdvanCE device.

Methods Retrospective, cohort study, including patients submitted to SBCE, and identifying those with previous gastroenteric surgery and SBCE endoscopic placement.

Results Included 422 patients, most were female (64.0 %), with a mean age of 53 ± 19 years. Six patients had a previous gastroenteric surgery (1.4 %), 3 patients with gastric bypass, 2 with Y-de-Roux and 1 patient with Bilroth II. SBCE endoscopic placement was performed according to the physician's discretion, in 7 patients (1.7 %), and it was 42 times more likely in those with previous gastroenteric surgery (33.3 % *vs* 1.2 %, $p = 0.003$).

In patients without SBCE endoscopic placement ($n = 415$), the rate of complete examinations and adequate bowel preparation was comparable between those with and without previous gastroenteric surgery: 50.0 % *vs* 89.5 % ($p = 0.060$) and 50.0 % *vs* 84.2 % ($p = 0.124$), respectively.

Considering patients with previous gastroenteric surgery ($n = 6$), the rate of complete examinations was comparable between those with and without SBCE endoscopic placement: 50.0 % *vs* 50.0 % ($p = 1.000$).

Conclusions SBCE is effective even in patients with previous gastroenteric surgery, having a rate of complete examinations and adequate bowel preparation comparable to those without gastroenteric surgery. SBCE endoscopic placement with the AdvanCE device was not associated with higher rate of complete examinations, in patients with previous gastroenteric surgery.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP233 Modified endoscopic vacuum therapy for the treatment of gastrointestinal fistulas and perforations: experience at State University of Campinas – Brazil

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Aims The aim of this study is to describe the clinical, laboratory and endoscopic characteristics of patients submitted to endoscopic vacuum therapy (EVT) for treatment of fistulas and perforations in the gastrointestinal (GI) tract at a Brazilian tertiary care center, as well as indications, success rate and treatment-related complications.

Methods This retrospective study included patients referred between November 2019 and November 2023 to the State University of Campinas, Brazil, with perforation or fistula in the GI tract. All patients were admitted and treated with EVT using a low-cost customized nasogastric tube (16 Fr) coated with fenestrated film. This system was connected to the wall suction system and a 20F intravenous catheter was connected to the tube to maintain a negative pressure between -75 and -150 mmHg. Endoscopic control examinations after the end of treatment were performed on outpatient basis. Demographic, diagnosis-related and treatment data were obtained during the follow-up of the patients.

Results Thirty-two patients were submitted to EVT during the study period. One patient was submitted to two EVT at the same time resulting in 33 fistulas treated. Twenty (62.5 %) patients were men. The mean age was 61.2 years (26-86 years). The indication for EVT was divided into three groups: postoperative, spontaneous and iatrogenic, which corresponded to 84.8 %, 9.1 % and 6.1 %, respectively. Regarding the site, most defects occurred in the cervical esophagus (39.4 %). EVT was the primary therapy in 67.7 %. The remaining fistulas had undergone surgical treatment (22.6 %) or placement of a stent (9.68 %) previously. In the postoperative cases, fistula was diagnosed within an average of 20.5 days (1-90 days) after surgery. On endoscopic assessment, the diameter of the orifice ranged from 0.5 to 7 cm (mean 2 cm) and the cavity extension ranged from 0 (without cavity) to 18 cm (mean 6.6 cm). The tube was changed once a week, with a mean of 2.9 changes (0-10 changes). The mean duration of treatment was 20.9 days (5-57 days) and the total length of hospital stay ranged from 5 to 90 days. During EVT, the patients were evaluated clinically and by laboratory tests. Pre- and post-treatment laboratory analysis revealed a significant decrease in white blood cell counts (WBC) (8,017 *vs* 13,125/mm³, $p < 0.001$) and C-reactive protein (CRP) levels (110 *vs* 40 mg/L, $p < 0.001$). The success rate of treatment was 81.8 %, 9.1 % failed and 9.1 % discontinued treatment. There were no complications or deaths related to the treatment. The mean follow-up time was 9.4 months.

Conclusions Despite the limited number of patients, modified EVT was found to be a safe, low-cost and effective method for the treatment of defects in the GI tract, especially postoperative fistulas. WBC and CRP can be used as parameters indicating improvement during the treatment of these patients. Comparative studies are needed to confirm these data. [1–6]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP234 Intrabiliary Migrated Coils as a cause for Biliary Stone Formation and Megacholedochus. A Rare Complication after embolization of a hepatic artery pseudoaneurysm

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DOI 10.1055/s-0044-1783523

Abstract Text Interventional radiologic coil embolization effectively manages severe bleeding, but post-endovascular coil migration is rare. We present a case of coil migration into the common bile duct following pseudoaneurysm coiling of a branch of the left hepatic artery in an 87-year-old woman with a history of hemobilia. Due to elevated cholestatic parameters and upper abdominal pain, an ERC was performed. Multiple large Stones and a Megacholedochus were observed. A subsequent ERC with Cholangioscopy identified metallic debris with wires. CT confirmed that the material in the bile duct was uncoiled coiling material, which is the cause for the formation of biliary Stones.In conclusion, foreign bodies (e.g., coils) can migrate into the biliary tract, where they may function as a nidus for the formation of CBD Stones. Both ERC and PTC have proven useful in addressing this challenging problem. [1–5]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP235 Comparative Study of ESD and Surgical Resection for Gastric SETs Originated from MuscularisPropria

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Aims The aims of this study were to compare endoscopic subtumoraldissection(ESD) with surgical resection for the removal of GSET-PM.

Methods This study involved 17 patients with GSET-PM removed by ESD and 76 patients who underwent curative surgical resection. ESD was attempted in GSET-PM with well marginated tumors which was below 5cm and showed an endoluminal growth pattern according to endoscopic ultrasound (EUS) finding.

Results ESD group were more likely to have upper portion (10/17, 58.8 %) and surgery group were more likely to have mid portion (41/76, 53.8 %) (p = 0.039). ESD group were smaller median tumor size (25.6 mm vs 35.9 mm, p = 0.037) and higher endoluminal ratio (58.5 ± 9.1 % vs 45.8 ± 15.4 %, p = 0.002). ESD group were mostly to have Yamada type III (10/17, 58.8 %) and surgery group were mostly Yamada type I (52/76, 68.4 %) (p < 0.001). Complete resection by ESD was lower than by surgical resection (82.4 % vs 100 %, p < 0.001). In ESD group, 3 performed surgical resection after ESD (1 incompletely resection and 2 uncontrolled bleeding) and 1 showed perforation was completely resected with endoscopic closure. In surgery group, complications occurred in 6 patients (1 leakage, 1 stricture, 1 hernia and bowel obstruction, 1 wound infection and 2 worsened general condition after surgery). Although surgery group were lower in complication rate than ESD group (p = 0.006), severity of complications were higher in the surgery group and there were no mortalities in the ESD group compared with 2 in the surgery group. There was no statistical difference of recurrence and the follow-up period between two group.

Conclusions ESD can be one of good options for the resection of endoluminal GSET-PM and could be replace treatment by surgical resection in Yamada type III with a high endoluminal ratio.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP236 Determining the indication for ESD based on endoscopic findings may encourage unnecessary surgery

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DOI 10.1055/s-0044-1783525

Aims Endoscopic submucosal dissection (ESD) has been recognized as a standard treatment for early gastric cancer (EGC) without lymph nodes or distant metastasis. It is important to recognize in pre-ESD status whether EGC is indications for ESD. In EGC, endoscopic finding was known to be valuable in the process of deciding whether to perform ESD or surgery. However, there are not many studies that have verified whether endoscopic findings are actually important.

Methods We retrospectively reviewed the medical records and pre-operative endoscopy of 518 early gastric cancer patients with extended indications for ESD after surgery and ESD. Of the 518 eligible patients, 51 were excluded for which endoscopic image analysis was not possible, resulting in the final inclusion of 467 patients. Three different endoscopist reviewed the endoscopic images of 467 patients and categorized them into five levels of ESD availability (level 1: definitely ESD, level 2: probably ESD, level 3: probably OP, level 4: definitely OP, level 5: undetermined).

Results Of the 467 patients, 343 (73.4 %) were judged to be possible for ESD by at least two of the three endoscopists based on pre-procedural endoscopic findings. In 122 (26.2 %) cases, more than 2 out of 3 experts judged that surgery would be necessary. Of 40(8.6 %) cases, more than 2 out of 3 experts judged that surgery must be done instead of ESD. A lesion size of more than 2cm (p = 0.002), flat and depressed lesion (p < 0.001), presence of ulcer (p < 0.001), and moderate differentiated histology (than well differentiated, p = 0.037) are associated with higher rates of recommendations for surgery.

Conclusions As a result of a retrospective review of the endoscopic findings of EGC for which ESD is the appropriate treatment, there is a high possibility that unnecessary surgery will be recommended. There are still many things that need to be improved in ESD decisions using endoscopic findings.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP237 Is Bevacizumab a Risk Factor for Colon Stent-Related Perforation?

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Aims Self-expandable metal stent (SEMS) insertion is an effective treatment for acute malignant colonic obstruction and stenosis. Bevacizumab is a monoclonal antibody that binds to vascular endothelial growth factors and has been reported as a risk factor for stent-related perforation. However, the evidence for the association between bevacizumab and stent-related perforation is lacking.

Methods From March 1, 2014 to December 31, 2018, we retrospectively analyzed patients with SEMS implantation due to acute colorectal obstruction of advanced colorectal cancer at four tertiary hospitals.

Results A total 397 patients underwent SEMS placement in this period. Technical success and clinical success were achieved in 391 patients (98.2 %), 392 patients (98.5 %). Perforation occurred in 17 cases (4.2 %). There was no difference in the incidence of perforation with or without bevacizumab treatment (9/138 vs 8/259 patients, p = 0.108). Of the 17 patients who developed perforation, six patients had peri-procedural perforation and eleven patients had delayed perforation

Conclusions Insertion of SEMS into colonic obstruction or stricture is a very safe procedure. Our findings suggest that bevacizumab does not increase the risk of stent-related perforation. [1–5]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP238 Successful Self-expandable Metal Stent Placement for Cecal Cancer with Ileocecal Obstruction

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DOI 10.1055/s-0044-1783527

Abstract Text Colonic stenting as a bridge to surgery (CSBS) has been recommended for obstructing colorectal cancer as an alternative to emergency surgery. Compared to left-sided obstructive colon cancer, CSBS in right-sided obstructive colon cancer is more difficult to insert and has a higher incidence of related complications, making be challenging and requiring more experience. In particular, in cancers occurring in the cecal area, as in this case, the difficulty of stent insertion is very high because it is not easy to accurately determine the direction of the lumen of the terminal ileum and appendix. We experienced a case in which a one-stage surgery was performed after successful insertion of a self-expandable metal stent (SEMS) in a patient with small bowel obstruction caused by cecal cancer. We report a rare case of stent placement for cecal cancer as well as technique of procedure. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP239 Pneumothorax, pneumoperitoneum and aspiration pneumonia during peroral endoscopic myotomy

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Abstract Text Peroral endoscopic myotomy (POEM), a novel technique for treating esophageal achalasia, has demonstrated exceptional efficacy and safety. This case describes unusual complications in a 17-year-old female with a decade-long history of dysphagia and type II achalasia (Eckardt score 6). Under general anesthesia, regurgitation and aspiration occurred, revealing extensive tissue adhesions hindering submucosal tunneling during POEM. Severe fibrosis led to pneumothorax, pneumoperitoneum, and multiple perforations. Immediate intervention included thoracic drainage, hemostatic clip closure. A CT scan revealed multifocal pneumonia, which was treated with antibiotics, and the patient was kept nil per oral. Within one week, recovery was evident, confirmed by esophagography, endoscopy, and X-ray. Discharged after two weeks, the patient achieved an Eckardt score of 2, tolerated solid diets, and demonstrated significant improvement. [1–3]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP240 Improving Missed Follow-up Colonoscopy Rate After Acute Diverticulitis: A Quality Improvement Project

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DOI 10.1055/s-0044-1783529

Aims Acute diverticulitis (AD) is widespread worldwide and most prevalent in developed countries [1–3]. The American Gastroenterological Association Institute [4] recommends a colonoscopy for patients with AD within 6-8 weeks of AD if not performed within the past year to assess the extent of diverticular disease and to screen for colorectal cancer [4–6]. The missed follow-up colonoscopy rate for AD patients at University Health between July 1, 2021, and June 30, 2022, was 99.2 %. We aimed to reduce the missed follow-up colonoscopy rate after AD from 99.2 % to less than 60 %.

Methods The quality improvement interventions included the implementation of an EMR alert notification for patients with AD at discharge and Internal Medicine (IM) residents' education. The alert is triggered by the discharge order for patients with AD and requires the provider to choose between ordering a future GI clinic follow-up or outpatient colonoscopy. Educational efforts included presentations at resident meetings and dissemination of infographics and handouts via email. The primary outcome was missed follow-up colonoscopy rate. Patients with ICD-10 codes for AD who are admitted to medicine, general surgery, or discharged from the emergency department were included.

Patients who had undergone colonoscopy in the prior year were excluded. The number of alerts triggered and colonoscopies ordered were collected as process measures. The pre-intervention period was from November 2021 to March 2022, and the post-intervention was from November 2022 to March 2023.

Results Resident Education was delivered on 12/08/2022, and materials were disseminated three times. The missed follow-up colonoscopy rate in AD patients decreased from 98.4 % during the pre-intervention period to 55.2 % during the post-intervention timeline. The alert was triggered 38 times. Four outpatient colonoscopy orders were placed, while thirteen outpatient GI clinic orders were placed.

Conclusions Our interventions improved missed follow-up colonoscopy rates in AD patients. The long-term implementation of these interventions will ultimately improve the quality of care for this cohort. This low-resource intervention could be replicated at UHTMC and possibly at other facilities. Our project limitations include short pre- and post-intervention periods, resulting in limited observation time. Also, some AD cases might have been missed if not documented via ICD-10 codes.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP241V Jejunitis in short bowel disease due to necrotizing enterocolitis

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DOI 10.1055/s-0044-1783530

Abstract Text We present the case of an 18-year-old woman operated in the neonatal period for necrotizing enterocolitis, with extensive ileocolic resection and subsequent anastomosis. In 2020, colonoscopy was performed due to abdominal pain and increased faecal calprotectin, identifying ulceration and inflammatory stenosis of the anastomosis, deciding to perform a new resection with end-to-end jejuno-colic reconstruction. Pathology report without specificity. Due to recurrence of symptoms after surgery and persistently elevated calprotectin with unaltered imaging tests, ruled out the use of NSAIDs, colonoscopy was repeated in 2023 (video). As seen in the video, a new ulceration of the anastomosis was found, as well as linear fibrin covered ulcers on proximal jejunal folds, with normal mucosa, suggestive of ischaemia pending pathology report.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/d17af64d-0bee-49dc-ab4c-0bf56b8a6bd9/Uploads/13821_Jejunitis_3.mov

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP242 Association of visceral adiposity and sarcopenia with the risk of colorectal adenoma

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DOI 10.1055/s-0044-1783531

Aims We aimed to investigate the association between visceral adiposity, sarcopenia and the risk of colorectal adenoma.

Methods A total of 11,995 subjects who underwent voluntary routine checkups at the Health Care Center of our institution between January 2010 and December 2019 were enrolled. Only data from the first examination of subjects who underwent repeated checkups were included. Clinical and laboratory data were collected. Visceral fat area (VFA) and skeletal muscle mass (SMM) were measured using bioelectrical impedance analysis (BIA). High-risk colorectal adenoma was defined as advanced colorectal neoplasia (largest diameter ≥ 10mm; villous histology; high grade dysplasia or invasive cancer) or ≥ 3 colorectal adenomas. Subjects were divided into high-risk colorectal adenoma group and control group. Data were compared between the groups. Logistic regression analysis was performed to determine the association between VFA, SMM and risk of high-risk colorectal adenoma.

Results VFA was significantly higher in the high-risk colorectal adenoma group than the control group (105.05 ± 32.92 vs. 93.93 ± 32.33, P < 0.001). In the logistic regression analysis, high VFA was associated with an increased risk of high-risk colorectal adenoma after adjustment for age, sex, hypertension, diabetes mellitus, and dyslipidemia (OR 1.17; 95 % CI, 1.02-1.35; P = 0.024) Sarcopenia was associated with an increased risk of high-risk colorectal adenoma after adjustment for age, sex, hypertension, diabetes mellitus, and dyslipidemia (OR 1.34; 95 % CI, 1.09-1.65; P = 0.005)

Conclusions Visceral adiposity and sarcopenia measured by BIA are independently associated with the risk of high-risk colorectal adenoma.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP243 Constipation is Associated with Long-Term Clinical Failure After G-POEM for the Treatment of Gastroparesis: A Multivariate Retrospective Analysis of 80 Patients

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DOI 10.1055/s-0044-1783532

Aims This study investigates the role of constipation and other digestive motors disorders in predicting the long-term success of Gastric Peroral Endoscopic Myotomy (G-POEM) for treating gastroparesis.

Methods This was a retrospective observational study. Patients who underwent G-POEM between July 2015 and August 2022 with > 6 months follow-up were included. The primary objective was to evaluate the relationship between constipation and G-POEM success. Secondary objectives included documenting the role of other digestive motor disorders, history of eating disorders, chronic opioid use and cannabis use. Multivariate logistic regression analysis was used to evaluate the relationship between clinical success and various parameters, including constipation.

Results 80 patients were included, 58 women (72.5 %) and 22 men (27.5 %) with a mean age of 51.78 years. The mean follow-up was 3.4 years. Clinical success was observed in 52.5 % of the patients post-G-POEM. 42.5 % had constipation, 17.7 % had esophageal motor disorders (EMD) and 13.9 % had other motor disorders. In univariate analysis, constipation and EMD were more fre-

quent in patients with failure: 57.89 % vs 28.57 %, p = 0.015 and 28.95 % vs 7.32 %,p = 0.017, respectively. In multivariate analysis, the presence of constipation (OR = 0.345 [0.121; 0.983], p = 0.0463) was the only predictive factor for success.

Conclusions Constipation emerged as a significant predictor of lower clinical success rates after G-POEM. It suggests that an expanded gastrointestinal evaluation for other motor disorders may improve the outcomes for patients with gastroparesis treated with G-POEM.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP244 Comparative Long-Term Outcomes of Surgical vs Endoscopic Management for Biliary Anastomotic Strictures After Orthotopic Liver Transplantation: A Retrospective Analysis of 141 Patients

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Aims Biliary anastomotic strictures (BAS) after liver transplantation cause significant morbidity. Endoscopy is the first-line treatment, while surgical hepaticojejunostomy (HJS) is reserved as a second-line option. This study assessed long-term outcomes for hepatic prognosis and survival after BAS resolution, comparing both management

Methods Liver transplant patients with choledocho-choledochal anastomosis from December 2011 to November 2020, developing BAS, were included. Two groups were defined based on stricture resolution method: endoscopy group (multiple ERCPs) and surgery group (HJS). Patients in the endoscopy group who underwent HJS for recurrence of BAS after its initial resolution remained in the endoscopy group. Primary outcome was "death-censored graft survival" after stricture treatment. Both groups were evaluated for overall survival, stricture recurrence rates, and biliary complications.

Results 144 patients were included, 112 in endoscopy group and 29 in surgery group (22/29 with initial endoscopic treatment failure). In endoscopy group, 13 patients underwent HJS during follow-up due to recurrent BAS. Endoscopic treatment was longer in the surgery group (16.12 months ± 13.93 vs 9.5 months ± 6.49, p = 0.009), with higher morbidity (13.79 % vs. none requiring ICU admission, p < 0.001). Following HJS, the Surgery group had significantly higher morbidity (13.8 %, vs 0 % p < 0.001), including two post-surgical deaths. No difference was observed in graft survival (p = 0.585) or overall survival (p = 0.317). Stricture recurrence rates reached 24 % in the endoscopy group. After HJS, 18 % developed non-obstructive cholangitis.

Conclusions Endoscopic treatment remains a valuable first-line approach, but surgical intervention does not appear to adversely impact long-term prognosis. Considering surgical option earlier is advisable, as prolonged endoscopic treatment appears to be associated with increased morbidity after hepaticojejunostomy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP245 Absent Contractility in Esophagus on high resolution esophageal manometry (HREM) should trigger search for Systemic Autoimmune Disorders

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Aims Absent contractility is one of the major disorder of esophagus identified on high resolution esophageal manometry (HREM). It is rare finding but usually merits a detailed evaluation of the patient for identification of underlying etiology. It is defined as when all swallows have failed (Distal contractile integral less than 100mmhgmmhgs cm with normal integrated relaxation pressure as per Chicago 4 classification). We aimed to determine the etiology in patients of absent contractility of esophagus in our population.

Methods We conducted a retrospective study where the records of patients who underwent HREM (HREM done using 24 channel water perfused RMH Equipment with standardization as per manufacturer instructions) were analyzed. Patients with diagnosis of absent contractility were included in the study. Patients with raised IRP with absent contractility (type 1 Achalasia Cardia), or patients with type 1 Achalasia post therapeutic intervention were excluded. Data on demographics, clinical findings, HREM findings, laboratory and other tests were extracted from the clinical records

Results A total of 72 patients with absent contractility were found eligible for inclusion the study. There was female preponderance with 46 females (63.8 %). 26 were males. Systemic autoimmune disorder was found in 28 patients (38.8 %).Majority had Systemic sclerosis (Diagnosed with use of clinical features and antibody testing for Anti-Scl70, Ro, La). 12(16.8 %) patients had severe gastro-esophageal reflux disease (GERD) as underlying cause (evidenced by LA grade B and above on endoscopy or 24hour ph Impedance testing where available). Rest 32 patients (44.4 %) had no obvious cause which could justify the etiology of absent contractility and was considered to be idiopathic. Limitations of the study was retrospective nature, reliability of documentation as drug history like opioid intake was not clear in few cases.

Conclusions A finding of absent contractility on HERM should merit a search for underlying systemic autoimmune cause as it may be one of first signs of the disease. Other etiological factors like severe GERD should be searched for. Detailed drug history is warranted.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP246 Endoscopic ultrasound (EUS)-guided detective flow imaging (DFI). A new advanced imaging technique for the differential diagnosis of pancreatic solid tumors

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Aims The differential diagnosis of solid pancreatic tumors (SPT) is a clinical challenge. A new EUS-guided advanced imaging technique, detective flow imaging (DFI) has been recently developed, which provides information about microvascularization and low-velocity blood flow of the lesion without the need for contrast agents. Our study **aimed** to evaluate the findings obtained by DFI-EUS in SPT and compare it to contrast-enhanced harmonic EUS with (Sonovue) (CEHEUS).

Methods A prospective, descriptive study was carried out, including patients with SPT who underwent DFI-EUS and CEHEUS. Procedures were performed with a linear echoendoscope (Fujifilm 740UT) attached to the ultrasound system Arietta 850. The lesions were classified according to the degree of vascularization with both techniques. The final diagnosis was based on EUS-guided sampling and the clinical and radiological long-term follow-up. Data are shown as mean ± SD and percentage.

Results 88 patients were included (mean age 68.1 years, range 24-88, 42 males). The mean size of the lesions was 28.8 ± 16.4 mm. 37 lesions (42.1 %) were located in the head of the pancreas, 31 (35.2 %) in the body, 1 (1.1 %) in the neck, 14 (15.9 %) in the tail and 5 (5.7 %) in the uncinate process. The final diagnosis was adenocarcinoma in 53 patients (60.2 %), neuroendocrine tumor in 25 (28.4 %), inflammatory mass in 6 (6.8 %), pancreatic squamous cell carcinoma in 3 (3.4 %), and pancreatic necrosis in 1 (1.2 %). Agreement regarding the vascular pattern of SPT between CEH-EUS and EUS-DFI was reached in 97.7 % of the cases. All adenocarcinomas were hypovascular at both CEHEUS

and EUS-DFI, inflammatory masses were isovascular, pancreatic necrosis avascular, and pancreatic squamous cell carcinomas were hypovascular in two cases and hypervascular in one case. All 25 neuroendocrine tumors were hypervascular at CEH-EUS, 23 of them (92 %) at EUS-DFI.

Conclusions DFI-EUS allows the evaluation of vascularization patterns of pancreatic tumors similar to those obtained by CEH-EUS, with a similar diagnostic yield, but without requiring the use of intravenous contrasts.

Conflicts of interest Julio Iglesias-Garcia Advisor: Boston, Fujifilm, Pentax, Mediglobe

eP247 Diagnostic performance of endoscopic ultrasound-guided fine needle biopsy in malignant lesions of the hepatic hilum: a single-centre, retrospective analysis

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Aims The diagnosis of hepatic hilar malignancies is challenging due to the complex anatomical location and intricate nature of these lesions. To date, limited and dated studies with small sample sizes have focused on the diagnostic utility of endoscopic ultrasound fine-needle aspiration (EUS-FNA) in suspected malignancy of the hepatic hilum. However, only a few case series have reported similar findings for EUS fine-needle biopsy (EUS-FNB). To address this gap, our study aims at assessing the diagnostic performance and safety profile of EUS-FNB a first-line tool in the diagnostic approach for suspected hepatic hilum malignancies.

Methods A single-centre, retrospective analysis of all the patients with biliary strictures and lesions involving the hepatic hilum who underwent EUS-FNB from October 2014 to April 2023 was conducted. All included patients were monitored after EUS-FNB via clinical follow-up for a minimum of 6 months or until death (follow-up < 6 months). A descriptive statistical analysis for all the variables was performed. Sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), and accuracy in detecting malignancies of the hepatic hilum were finally calculated. [1]

Results A total of 83 consecutive subjects (M:F 51:32, mean age 69.01 ± 10.10) with a radiological suspicion of malignant lesion of the hepatic hilum were included in the analysis. 5 patients had a history of prior upper gastrointestinal (GI) surgery (1.2 % pancreaticoduodenectomy, 2.4 % Roux-en-Y gastric bypass, 1.2 % distal gastrectomy with Billroth I recostruction, 1.2 % Ivor Lewis esophagectomy). Mean lesion size was 29.10 mm (SD ± 13-66). A 22G-fine needle was used in 76 (91.6 %) subjects, a 19G in 2 (2.4 %), a 20G in 1 (1.2 %), a 25G in 4 (4.8 %). EUS-FNB sampling was adequate in 19 (92.8 %) patients. 9 (10.8 %) subjects underwent a second EUS-FNB after a first non-diagnostic sampling. Conclusive histopathological findings indicated cholangiocarcinoma being the predominant neoplasia (n = 63,75.9 %). Other findings included hepatocellular carcinoma (n = 3,3.6 %), secondary metastasis (n = 5,6.0 %), neuroendocrine neoplasm (n = 2,2.4 %), multiple myeloma (n = 1,1.2 %), and undefined dysplasia (n = 1,1.2 %). Non-malignant lesions were identified in 8 cases (9.7 %). Sensitivity, specificity, PPV, and NPV were 88.00 % (95 % CI:78.44-94.36), 100.00 % (95 % CI:63.06-100.00), 100.00 % (95 % CI:94.56-100.00), and 47.06 % (95 % CI:32.50-62.13), respectively. Overall accuracy was 89.16 % (95 % CI:80.41-94.92). The repetition of EUS-FNB after a first non-diagnostic one demonstrated increased sensitivity (92.00 %,95 % CI:83.40-97.01 %) and overall accuracy (92.77 %,95 % CI:84.93-97.30 %). Importantly, histological results were not affected by prior upper GI surgery (n = 5,p = 0.083), or the presence of a biliary stent in place (n = 19,p = 0.728). The reported post-procedural adverse events were cholangitis (n = 3,3.6 %) and mild pancreatitis (n = 1,1.2 %).

Conclusions This study emphasizes the diagnostic performance of EUS-FNB as a first-line tool for lesions of the hepatic hilum. Further prospective studies are warranted to validate our results.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP248V A Case of a Large Obstructing Pancreatic Stone Treated with Single-Operator Pancreatoscopy and Electrohydraulic Lithotripsy

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Abstract Text Pancreatoscopy with lithotripsy has been proposed as an effective therapeutic strategy in patients with pancreatic stones. Here, we report a case of a 44-years-old female with clinical history of severe abdominal pain and radiological evidence of a 30 mm pancreatic stone in the cephalic portion of the main pancreatic duct (PD). Extracorporeal shock wave lithotripsy had been already attempted, without success, and surgery had been proposed, that the patient refused. ERCP with single-operator pancreatoscopy and electrohydraulic lithotripsy was performed, with complete fragmentation of the stone and extraction of the fragments. Two plastic stents were placed at the end of the procedure, and the patient was discharged without adverse events. Two months later, a second ERCP demonstrated complete clearance of the stone and fragments. The plastic stents were replaced to ensure pancreatic drainage.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/2838986a-5d18-43ae-b8ae-e3efa65f6cbe/Uploads/13821_Videocase_Pancreatolithiasis %20ESGE.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP249 ERCP efficacy and safety in the very elderly: robust effectiveness with some concerns

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Aims With increasing age, the incidence of biliary diseases rises [1, 2]. When performing an ERCP in an elderly patient, the anticipated benefits of endoscopy as well as the increased risks of adverse events (AEs) must be considered. This single-centre observational study aims to retrospectively evaluate the incidence of ERCP-related AEs in a cohort of patients ≥ 80 years old, respect to a control cohort < 80 years old.

Methods All consecutive naïve patients who underwent an ERCP from August 2022 to April 2023 in Baggiovara and Policlinico Hospitals (Modena) were enrolled. Intra-procedural (bleeding, perforation, sedation) and post-procedural (bleeding, perforation, pancreatitis, cholangitis, death) AEs were recorded up to 30 days. For the diagnosis and definition of severity of AEs, the following classifications were used: the revised Atlanta classification for pancreatitis, the Cotton Classification for post-sphincterotomy bleeding, the Stapfer classification for perforations, the 2018 Tokyo Guidelines for cholangitis. Death, permanent injury, or endotracheal intubation were considered major AEs.

Results 312 patients were considered eligible for the study: 199 (64 %) < 80 years old (control group) and 113 (36 %) ≥ 80 years old (case group). As expect-

ed, cases showed respect to controls, a significantly higher prevalence of female sex (57 % vs 42 %; p-value 0.010), comorbidities (83 % vs 53 %; p-value < 0.001) and polypharmacotherapy (91 % vs 65 %; p-value < 0.001), in particular anticoagulants (62 % vs 36 %; p-value < 0.001). In elderly there was also a higher incidence of para-Vaterian diverticulum (26 % vs 10 %; p-value < 0.001) and choledocholithiasis (68 % vs 51 %; p-value 0.013). Incidence of moderate-severe post-sphincterotomy bleeding (4 % vs 2 %; p-value 0.337) neither moderate-severe pancreatitis (1 % vs 2 %; p-value 0.929) nor cholangitis (9 % vs 7 %;0.684) nor sedation AEs (1 % vs 1 %) was different between the two groups. 5 perforations occurred (3 in ≥ 80 years old): 1 jejunal in a gastroresected patient, 3 induced by decubitus of the stent and 1 related to cannulation. In our series, the 30-day mortality was significantly higher in the elderly (7;7 % vs 1;1 %; p-value 0.004). In 3 patients death occurred despite the biliary drainage having been effective.

Conclusions ERCP is a safe and effective procedure even in patients ≥ 80 years old. These patients, however, are exposed to a greater risk of morbidity and mortality if AEs occurred.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP250 Durability and efficacy of a novel transparent silicon attachment, the Static Electricity Fastening Tape-hood: a prospective cohort study

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Aims Distal attachment-assisted colonoscopy has been shown to enhance cecal intubation time and increase adenoma detection rate. For infection control purposes, the majority of distal attachments used are disposable. The cost, however, can be high given the need for multiple sizes for different endoscopes. Our center has developed a transparent silicon attachment called the SET (Static Electricity Fastening Tape) hood, which is adjustable in length and stiffness and can attach to any endoscope via electrostatic force. We aimed to evaluate the efficacy and durability of this innovative attachment.

Methods In a prospective study, we conducted 69 screening and surveillance colonoscopies using the SET hood wrapped around the endoscope tip twice before the procedure. The primary outcome was the completion rate of colonoscopy without SET hood detachment. The secondary outcomes included cecal intubation rate, time, total endoscopic examination time, adenoma detection rate, and complication rate.

Results The SET hood was used for eight types colonoscope (PCF-H290ZI, PCF-H290I, PCF-PQ260L (Olympus), EC-3490TMi, EC-3890MZi, EC-34-i10TM (Pentax), EC-L600ZP7, EC-L600MP7 (Fujj)). Results showed a 100 % (69/69) completion rate of colonoscopy without SET hood detachment and a 100 % cecal (69/69) intubation rate with a median intubation time of 8 minutes (IQR 5-12). The total examination time had a median of 20 minutes (IQR 16- 27). The adenoma detection rate was 48 %, with no intra-operative complications.

Conclusions Our study demonstrated that the SET hood is durable and efficient to assist colonoscopy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP251 Long term efficacy of Pneumatic dilation (PD) in treatment-naïve achalasia patient: a north African experience center

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Aims our study aims to determine the short and long-term efficacy of pneumatic dilatation on clinical remission in a treatment-naïve achalasia patient

Methods A single center retrospective,descriptive and analytical study conducted between January 2007 and September 2022. Treatment naïve patients with manometric diagnosis of primary achalasia (subtype I and II) were included. We evaluated the clinical outcomes; single vs multiple PD, complications, and estimated duration of effect.

Results 121 patients were included, (mean age 42,2 ± 14,5 ; 53,8 % male), 88,4 % (n = 104) underwent 2 PD and 11,6 % (n = 17) underwent 3 PD, 23,1 % (n = 28) needed repeated PD at one year, The PD procedure was completed without major complications in all patients. Patients with subtype II had a better response to PD than subtype I(p = 0,003). In the long-term follow up (median time: 50 months), the mean Eckardt score was 2.2. A subsequent 35 mm dilatation was associated with long-term clinical remission than an initial dilatation with 35 mm.(p = 0.003).

On univariate analysis, the non-responders more often was male gender, had age < 40 years (p = 0.0006), and had high baseline LESP (lower esophageal sphincter pressure > 50 mmHg), p = 0.004). On multivariate analysis only age < or = 40 years (p = 0.02) was associated with poor outcome.

Conclusions PD is an effective, durable and safe treatment for achalasia. A graded-protocol PD starting with a 30 mm dilation applied in the appropriate achalasia subtypes was shown to be a highly effective approach, in both the short- and long-term.

Age < 40 years, male patients and hight LESP have poorer outcomes following PD.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP252 Use of the Archimedes biodegradable stent at ERCP

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Aims The Archimedes biodegradable stents (ABS) are licensed for use in ERCP. Its unique design allows for drainage through and around the stent. The aim of this study was to evaluate the clinical use in both biliary and pancreatic indications in paediatric and adult patients.

Methods This was a retrospective study of an unselected population of 132 patients who received biodegradable Archimedes stent during an ERCP between November 2018 and March 2023. Cases were searched and checked against electronic patient records. Data collected included baseline characteristics, indications for ERCP, Archimedes stent placement and size and length of the stents used. All discharge summaries and further admissions post ERCP were checked for complications.

Results 138 ABS were inserted into 132 patients of which 6 patients received both pancreatic and biliary stents during their procedure. 20 patients were paediatrics (mean age 11.8 – IQR 3.2-17) and 112 patients were adult (mean age 53.5 – IQR 19-93).96 pancreatic ABS were placed (n = 89 fast degradation and n = 7 slow degradation stents). Fast degradation stents were placed to mitigate against pancreatitis, dilated pancreatic duct (PD) or strictured PD due to

pancreatitis stones. Slow pancreatic degradation stents were placed due to sphincter of Oddi dysfunction or chronic pancreatitis. The commonest fast pancreatic stent used was 6Fr 6cm. 42 biliary Archimedes stents were placed (n = 2 fast degradation and n = 40 slow degradation stents). Slow degradation stents were placed for bile leak or cholelithiasis. Fast degradation stents were inserted for benign stricture or stone fragmentation removal. The commonest slow biliary stent used was 8Fr 8cm. 134/138 (97.1 %) ABS were placed successfully. 4/138 (2.9 %) were placed unsuccessfully due to stent placement difficulties or procedural issues. There were no sphincterotomy bleeds or perforations reported and there were no reported cases of any complications relating to the Archimedes stent post-insertion. Overall, 79/132 patients (59.8 %) required a pancreatic stent to mitigate against pancreatitis as the PD was initially cannulated or contrast was injected – only 4/132 (3.0 %) developed pancreatitis post-ERCP.

Conclusions The ABS is safe and highly efficacious in the use of both pancreatic and biliary indications at ERCP. Degradation rates were as predicted. Further indications for the use of the ABS appear to be evolving in clinical practice.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP253 Does endoscopic drainage of ruptured hydatid cysts in the bile ducts replace surgery?

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Aims Our study aimed to evaluate the efficacy of endoscopic treatment of ruptured liver hydatid cysts (LHC) in the bile ducts.

Methods This was a retrospective descriptive study, throughout 2013-2023 including all patients admitted for management of ruptured LHC in the bile ducts, and who received only a curative endoscopic treatment. ERCP and endoscopic biliary sphincterotomy were performed in all patients.

Results Over the period studied, out of 26 ERCPs were performed for ruptured hydatid cysts in the bile ducts, and 03 patients (11.5 %) were treated exclusively with endoscopic treatment. The patients were 01 men and 02 women, aged between 30 and 67 years, with an average age of 45.6 years.

The clinical picture was marked by hepatic colic in 100 % (n = 3), jaundice in 01 patients (33.4 %), and acute cholangitis in 03 cases (100 %).

Imaging showed signs of LHC rupture in the bile ducts, namely dilatation of the isolated main bile duct in 02 cases (66.6 %), dilation of the main bile duct and intrahepatic bile ducts in 01 case (33.3 %), presence of hydatid material in the lumen of the common bile duct and evidence of cysto-biliary fistula in all cases.

Endoscopic retrograde cholangiopancreatography (ERCP) as the exclusive treatment was carried out in all our patients. Dilatation of the bile ducts was observed in 100 %, cysto-biliary fistula, and the presence of hydatid material in the CBD in all patients. Endoscopic sphincterotomy was performed in all patients. Therapeutic procedures consisted of extraction of hydatid material by realizing sphincterotomy and balloon swapping of bile ducts, catheterizing the orifice of the fistula tract with extraction of hydatid material, and abundant lavage with physiologic serum inside the cystic cavity. There were no complications related to the endoscopic treatment.

Conclusions The rupture of hydatid cysts in the bile ducts is a potentially serious complication. Endoscopic treatment may be an acceptable and effective method in 11.5 % of cases, without the need for surgery.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP254 Advanced polyps in patients over 85: 5 years' experience from a tertiary complex polyp meeting

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Aims Colonoscopy and polypectomy carries significant risk in the elderly. Previous reports suggest polypectomy greater than 2cm should only be undertaken by experienced endoscopists following appropriate patient discussion. There remain no consensus guidelines. We reviewed all patients aged over 85 years referred to our complex polyp meeting over a 5 year period.

Methods Data was analysed from all patients over the age of 85 years referred to our complex polyp meeting from 2017 to 2022. Referrals, patient notes and endoscopy reports were reviewed. Elixhauser Comorbidity Indices were retrospectively applied. Mortality and cause of death were analysed from GP records.

Results 54 patients (median age 88; range 85-95) were identified. Data was incomplete for 3 patients. 37 were local referrals; 14 tertiary referrals. Median lesion size was 30mm (range 12-100mm). The most common sites were the caecum (28 %) and rectum (24 %). SMSA score was reported in only 6/39 (15 %) of endoscopic referrals. Only 1 patient referral reported a prognostication or functional assessment score. The complex polyp meeting advised consideration of endoscopic resection (ER) in 36 cases (mean Elixhauser Comorbidity Index (MECI) 5.0). 11 cases (22 %) were referred straight to ER, and discussion with the patient in a specialist polyp clinic was recommended for 25 (49 %). 10 (40 %) of those reviewed in specialist polyp clinic proceeded to ER, with the most common indications symptoms (60 %) and patient choice (30 %). 10 (40 %) were managed conservatively due to excess procedural risk (70 %) or patient choice (30 %). 5 (20 %) were referred for surgical assessment for polyps not amenable to ER. There was no difference in MECI between patients proceeding to ER or those for conservative management (4.9 v 5.3). ER was attempted in 20 cases: 12 endoscopic mucosal resection (EMR), 3 underwater EMR, 2 endoscopic submucosal dissection (ESD), 1 hybrid procedure, 1 trans-anal submucosal endoscopic resection (TASER) procedure, and 1 abandoned ER due to poor access. In those patients undergoing ER, 2 (11 %) suffered complications with post-polypectomy bleeding. Both required admission, with 1 requiring a further therapeutic endoscopy. Both patients were on anti-coagulation. Histopathology showed high grade dysplasia in 3 (16 %) and adenocarcinoma in 1 patient. 1 and 3 year mortality was 0 % and 11 % respectively for those undergoing ER, and 16 % and 69 % for those managed conservatively. There were no deaths secondary to colorectal cancer.

Conclusions Advanced polypectomy in patients over 85 is safe for the selected cohort, although risks of complications are increased in this group. Advanced polypectomy should only be considered after clear discussion of the risks and benefits with the patient. Although a comorbidity index did not differentiate patient outcomes, selection of patients for ER vs conservative management appeared appropriate. Further evaluation is required to identify appropriate prognostication tools to aid patient decision making. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP255 Palliative EUS-guided gastroenterostomy in malignant gastric outlet obstruction – a 2 years single center experience

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Aims Malignant gastric outlet obstruction (mGOO) is associated with poor prognosis and impairment in patient´s quality of life. Surgical laparoscopic gastroenterostomy (L-GE) is considered as standard treatment but is associated with significant postoperative morbidity. Endosonography-guided gastroenterostomy (EUS-GE) has emerged as a less invasive alternative with high efficacy for patients with mGOO. We conducted a retrospective analysis to evaluate the clinical outcome after EUS-GE.

Methods A retrospective analysis was performed of all EUS-GE performed in the gastroenterology department of Asklepios Clinic Altona in Hamburg, Germany (January 2021 to November 2023). In all EUS-GE cases a direct gastroenterostomy technique was used (DGE). All procedures were performed under deep sedation with propofol using an electrocautery-enhanced lumen apposing metal stent (LAMS, hot axios, Boston Scientific).

Results Overall, 22 patients received EUS-GE during this time. 17/22 Patients suffered from mGOO with pancreatic carcinoma being the most common aetiology in 8/17 patients (47 %). Technical success was achieved in 22/22 patients (100 %). Clinical success, defined as eating without vomiting and correct drainage of contrast medium in the corresponding radiological image the following day, was achieved in 21/22 patients (95 %). There were no adverse events nor reinterventions. In 4/22 cases (18 %) the target site had to be punctured twice, in 3 of these 4 cases endoscopic closure of the initial gastrostomy was performed using clip application.

Conclusions In patients with mGOO EUS-GE with DGE is a safe procedure with high technical and clinical success rates. Even though there are limited studies available and the EUS-GE is a technically demanding procedure, our study shows that EUS-GE may be regarded as gold standard in experienced endoscopic enters. As there is still a lack of long-time studies acknowledging the long-term patency of LAMS, the benefit of the surgical approach for patients with a higher life expectancy is still a matter of ongoing discussion.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP256 Factors associated with spontaneous migration of stones for common bile duct

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Aims Common bile duct (CBD) stones can spontaneously migrate through the duodenal papilla. In this case, ERCP may be unnecessary and a significant rate of complications may be avoided.

The aim of our study is to evaluate the factors associated with spontaneous migration of CBD stones.

Methods This is a retrospective descriptive and analytical study including 547 patients who underwent ERCP for CBD stones between January 2019 and September 2023.

All patients underwent MRCP for the diagnosis of CBD stones.

MRCP was considered positive if stones were present in CBD.

A positive ERCP was defined as the presence of stones in the VBP on cholangiography.

Patients were classified into 2 groups:

- Group A (n = 309): positive MRCP and positive ERCP.
- Group B (n = 265): positive MRCP but negative ERCP.

Statistical analysis was performed using JAMOVI software

Results The mean age in group A was 59.1 + /- 13.8 years and in group B 56.9 + /- 13.2 years, with no statistically significant difference (p = 0.056).

The sex ratio (M/F) in group A was 0.7 and in group B 0.54, with a significant female predominance in both groups (p = 0.03).

There was no statistically significant difference between the 2 groups in CBD diameter or presence of a periampullary diverticulum.

Comparing group A versus group B, patients with small stone diameter (P = 0.001), a single stone (p = 0,001) and distal stones (P = 0.04) tended to pass their stones spontaneously.

Conclusions In our study, the factors associated with spontaneous migration of CBD stones were a small stone diameter, a single stone and distal stones.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP257 The Plummer-Vinson syndrome: a Moroccan single center experience of 96 patients

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Aims The aim of our study is to describe the clinical profile, treatment characteristics and outcomes, while exploring the associations with certain autoimmune diseases .

Methods This is a retrospective single center study which collated all cases of PVS diagnosed and treated in our department of Hepato-Gastroenterology C at Ibn Sina hospital in Rabat over 18 years (from 2005 to 2023).

Results There were a total of 96 patients, with an average age of 41.6 years and extremes ranging from 17 to 90 years. A clear female predominance was observed, accounting for 80 % (n = 77).

Clinically, 97.9 % (n = 94)of patients presented dysphagia as the main symptom, associated with a clinical anemia syndrome in 51 % (n = 49), weight loss in 17.7 % (n = 17), and odynophagia in 3 % (n = 3).

Biological tests revealed an iron-deficiency anemia in all patients (n = 96).All patients underwent oeso-gastro-duodenal fibroscopy, which revealed a membranous ring localized below the cricopharyngeal muscle in 44 cases , and the upper third of the esophagus in 34 cases .

The ring was impassable in more than half of our patients 56.25 % (n = 54).

All patients underwent dilatation that has been performed by Savary-Gilliard candles or hydrostatic balloons associated with a martial supplementation.

The majority, 87.5 % (n = 84) had a favorable outcome with a clinical improvement on short and medium term, with a median follow-up of 9 months.

One single ring was found in 98.9 % (n = 95)of patients , while one patient had an association of 2 rings with a lower esophageal ring with a small sliding hiatal hernia corresponding to a schatzki ring.

However, 26 % (n = 25) of patients presented a recurrence of dysphagia, requiring a second dilatation session, the average time to clinical recurrence was 7 months + /-.

Autoimmune associations were identified, including celiac disease in 4 patients, Crohn's disease in 2 patients, autoimmune bullous dermatosis in 1 patient and type 1 diabetes in 1 patient.

Five patients developed squamous cell carcinoma. Three of them were discovered at the time of diagnosis of the ring, and 2 were diagnosed during endoscopic follow up after 8 years

Conclusions PVS is relatively rare, affecting mainly female individuals. Although endoscopic dilation has proven effective in most cases, in our study,the recurrence interested less than a third of patients (n = 25). Regular monitoring is important because of the risk of degeneration and the high frequency of associated autoimmune diseases. However, correction of the iron-deficiency anemia remains crucial to prevent any relapse of the disease.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP258 Detective Flow Imaging vs Contrast-Enhanced Endoscopic Ultrasonography in solid pancreatic lesions

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Aims Detective flow imaging endoscopic ultrasonography (DFI-EUS) is a new technology that detects fine vessels and low-flow velocity without contrast agents, used in real time during EUS, with a better resolution compared to usual technologies such as color-Doppler and eFLOW. The aim of this study was to compare DFI-EUS with the technique of contrast-enhanced endoscopic ultrasonography (CE-EUS) for the evaluation of vascularization in solid pancreatic lesions.

Methods In this retrospective single-center study, we randomly selected patients who underwent EUS for the initial management of a pancreatic mass, between February 2021 and December 2022. We included patients older than 18 years old, who had a pancreatic mass visualized by EUS, with recorded images of their assessment in DFI-EUS and CE-EUS techniques with a histological diagnosis confirming malignant tumors or a minimum of 1-year follow-up for benign lesions. Exclusion criteria included cystic tumors, lesions non-measurable by EUS, lack of a lesion biopsy, or loss to follow-up. The analysis involved simultaneous image readings by two endoscopists. The primary objective was to evaluate the accuracy of DFI-EUS compared to CE-EUS in assessing microvasculature in solid pancreatic lesions.

Results One hundred and twenty-seven patients were initially selected, of whom 20 were subsequently excluded (14 due to cystic lesions, 3 not biopsied, and 3 lost to follow-up). Of the 107 patients included, histological diagnosis revealed 69 cases (64.4 %) of pancreatic adenocarcinoma, 18 cases (16.8 %) of neuroendocrine tumors (NET), and 10 cases (9.4 %) of metastases from non-pancreatic cancers. A smaller proportion (9.4 %) exhibited other lesions, such as benign lesions, lymphomas, acinar cell carcinoma, and accessory spleen. The incidence of intralesional microvascularization was 43.9 % with DFI-EUS and 48.6 % with CE-EUS, indicating a positive correlation between the two techniques ($p = 0.0001$). We found that, compared to CE-EUS, DFI-EUS exhibited a sensitivity, specificity, Positive Predictive Value (PPV), and Negative Predictive Value (NPV) of 88.5 %, 98.2 %, 97.9 %, and 90 %, respectively, for the detection of intralesional vasculature.

Conclusions The novel technique DFI-EUS demonstrates a remarkable correlation with CE-EUS, exhibiting high sensitivity and specificity for the assessment of microvascularization in solid pancreatic lesions. This method eliminates the need for a contrast agent, thus carrying no risk of adverse effects. Additionally, it allows for the evaluation of microvasculature across multiple lesions in the same patients, without being time-dependent, as observed with CE-EUS. Assessing the cost-benefit ratio of DFI-EUS would be of interest to determine its utility in recommendations for the evaluation of solid pancreatic lesions.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP259 Endoscopic submucosal dissection in a patient with gastric gastrointestinal stromal tumor after downstaging with imatinib therapy

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Abstract Text 41 year old male Patient came with Gastrointestinal bleed. Endoscopy showed a large submucosal growth in proximal body of stomach. Endoscopic ultrasound revealed this to be a 65 * 50 mm size lesion arising from muscularis mucosa. Biopsy confirmed it to be a gastrointestinal stromal tumor. In view of large size, possibility of difficult retrieval post endoscopic resection was likely. Patient was prescribed imatinib 400 mg once a day for 3 months which regressed the size of the tumor to 25 * 30 mm making it amenable for endoscopic submucosal dissection and successful retrieval. Patient underwent endoscopic submucosal dissection of this tumor successfully with histopathology confirming CD 117 positivity and peripheral margins free of any tumor. He continues to do well 6 months post resection. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP260 Comparison of the performance of acetic acid enhanced Narrow-Band Imaging (NBI) versus non-magnifying NBI for detecting gastric preneoplastic conditions using EGGIM score in Eastern Europe trainee endoscopic practice

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Aims The diagnosis of gastric intestinal metaplasia (GIM) is currently performed by histologic assessment of multiple endoscopic biopsies. We aimed to compare the diagnostic yields of acetic acid-enhanced narrow-band imaging NBI (AA-NBI) targeted biopsy versus NBI virtual chromoendoscopy for the detection of gastric preneoplastic conditions as atrophic gastritis (AG)/GIM, lesions (dysplasia), and early gastric cancer (EGC), and to identify the other factors that influence its accuracy using the validated endoscopic grading of gastric IM (EGGIM) score in trainee endoscopic practice (previously < 300 endoscopies).

Methods We prospectively evaluated 300 consecutive patients undergoing screening upper endoscopy (EGD) at the Department of Gastroenterology in University Hospital "Tsaritsa Yoanna – ISUL", Sofia, Bulgaria, from Jan 2019 through Oct 2023 in an open-label, single-centre, comparative trial. All participants were enrolled and allocated (1:1:1) to 3 arms (n-100 in each arm): 1) Using only wight-light endoscopy (WLE) with random biopsy with Sydney system, 2) Using NBI without magnification in the antrum and incisura angulars to detect GIM/AG, 3) Using 3 % acetic acid with NBI enhanced (AA-NBI) for detection of preneoplastic conditions. All upper EGD was performed by trainee endoscopists with less than 150 EGD. In the detection of acetowhite reaction or Light-blue crest (LBC), targeted biopsies were performed using the EGGIM score. The accuracy of the three methods to diagnose GIM/AG/EGC was compared using the histology results as a reference.

Results In 300 patients (61 % males, mean age 59 ± 17) we found GIM in n = 4 (4 %) in the WLE arm, n = 14(14 %) in the NBI arm and n = 23(23 %) in the AA-NBI arm ($P < 0.0001$ for both comparisons). Two patients with EGC were diagnosed in the AA-NBI, with no EGC in the other arms. The combined use of targeted biopsies with AA-NBI for GIM using EGGIM score with AUROC of 0.67 (95 % CI 0.501 – 0.872) and overall diagnostic accuracy of 70.3 %, and the sensitivity and specificity were 70.6 % and 64.4 %, respectively. Endoscopically determined and detection of LBC using AA-NBI during EGD positively affected with Odds Ratio 10.459 (95 % CI 3.14-34.7) for detecting GIM. The overall diagnostic yields of AA-NBI in the diagnosis of AG/GIM/EGC were significantly higher than NBI ($p < 0.05$) and WLE ($p < 0.001$).

Conclusions The acetic acid enhanced with NBI in combination with the EGGIM score with targeted biopsies is a valid and reproducible tool that showed high results for diagnosing preneoplastic conditions even in trainee settings. The endoscopic findings of LBC may serve as a practical tool for identifying GIM and patients at high risk of early gastric cancer. [1–3]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP261 Outcomes of ERCP's Performed in the AM vs. PM: Does Procedural Timing Matter?

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Aims Endoscopic retrograde cholangiopancreatography (ERCP) is an establisheddiagnostic and therapeutic tool for hepatobiliary disease. Given its technicaldemands, it remains one of the highest-risk endoscopic procedures with reportedadverse event rates of up to 12 %. Addressing modifiable factors, such as operatorfatigue, may mitigate procedural risk. In colonoscopy, there is conflicting data onwhether procedure time of day, as a surrogate of operator fatigue, affectsoutcomes, with some literature demonstrating decreased procedure completion andpolyp detection rates in the afternoon. There is a paucity of data evaluating thispotential relationship in ERCP. The aim of this study is to evaluate the impact ofprocedure time of day on procedural success and short-term adverse outcomes inpatients undergoing ERCP.

Methods The records of 5755 consecutive ERCP procedures performed on adult patients atour tertiary referral center from January 1, 2010 to December 31, 2020 wereretrospectively reviewed. The primary outcome was the procedural success rate,defined as successful navigation to the papilla, selective duct cannulation andcholangiography, and realization of the intended therapeutic goals. Secondaryoutcomes included procedure duration, rate of deep ductal cannulation, rate ofsphincterotomy, and short-term (30-day) adverse events (immediate bleeding,pancreatitis, perforation). Statistical analysis was conducted using R. Categoricalvariables were compared using the Chi-square test of independence or Fisher'sexact test. Continuous variables were compared using T-tests or the Mann- Whitney-U test. The normality of a given variable was assessed using the Shapiro- Wilk's test.

Results A total of 5755 ERCP's were performed between 8 AM – 6 PM; 2863 wereperformed before 12PM (AM group) and 2892 after 12PM (PM group). Baselinecharacteristics were similar between the two cohorts, with the exception ofhypertension (33.7 % AM vs 30.1 % PM; p = 0.003), and anticoagulation (20.3 % AMvs 18.3 % PM; p = 0.05) (Table 1). In both groups, the most common ERCPindication was choledocholithiasis. The primary operators in both cohorts werepredominantly clinical fellows. There was no difference in procedural success rate(87.0 % AM vs 86.7 % PM; p = 0.72), procedure duration (33.6 minutes AM vs 32.9minutes PM; p = 0.29), rates of deep cannulation (82.9 % AM vs 83.0 % PM;p = 0.81) and sphincterotomies (63.2 % vs 62.7 %; p = 0.68). Rate of adverse eventswere similar, with slightly higher rates of immediate bleeding in the AM group (5.0 %AM vs 3.8 % PM; p = 0.03). Results were similar in a subgroup analysis of patientswith altered anatomy and procedures without fellow involvement.

Conclusions In conclusion, the procedure time of day did not impact procedural success rate.There were slightly higher rates of immediate bleeding in the AM group, though thismay be explained by higher rates of anticoagulation in that group

Conflicts of interest JDM – Speaker: Boston Scientific, Pendopharm, Vantage, Medtronic. Medical Advisory Board: Pendopharm, Boston Scientific, Janssen, Pentax, Fuji. • GRM – Consultant for Olympus. Speaker: Pentax, Fuji and Medtronic. • SCG –Research grants and personal fees from AbbVie and Ferring Pharmaceuticals, personal fees from Takeda, Pfizer, Abbvie, Sanofi, and Bio-JAMP, education grants from Janssen and Abbvie, and has equity in Volo Healthcare. • All the authors have no relevant financial disclosures or conflicts of interest to declare.

eP262 Endoscopic vacuum therapy after anastomotic leakage and oesophageal rupture in a tertiary centre

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Aims Endoscopic vacuum therapy (EVT) involves vacuum assisted wound closure systems to aid in the management of perforations or post-surgical anastomotic leaks in the gastrointestinal tract (GI). It is thought that the negative pressure produced via the continuous vacuum system provides continuous drainage around the wound which in turn promotes tissue granulation and wound healing. The aim of this study is to describe the experience of EVT in the upper GI tract in a tertiary referral hospital.

Methods Consecutive patients who underwent EVT using Eso-SPONGE at Imperial College Health Care NHS Trust from August 2020-September 2023 were retrospectively analysed. Recorded variables included patient demographics, procedural characteristics, response to therapy, and follow up data. The primary outcomes measured in this study were the success rate of EVT- assisted closure and adverse outcomes.

Results 10 patients were included in this study (6 males; mean age 64.7). A total of 54 procedures were undertaken, each patient underwent a median of 4.5 procedures (range 2-14). 68.5 % of procedures (n = 37) were performed under general anaesthetic and the rest were performed under conscious sedation. The indications for the EVT were: anastomotic leakage after Ivor Lewis oesophagectomy (n = 3), anastomotic leak after oesophagectomy (n = 3), Boerhave`s syndrome (n = 2), iatrogenic oesophageal perforation during transoesophageal echocardiography (n = 1) and oesophageal tear after video assisted thoracoscopic surgery for left upper lobe squamous cell carcinoma (n = 1). The median size of the mucosal defect was 25mm (Range 3-40mm). EVT was successful in seven patients (70 %, 95 % CI, 42 % to 98 %). The median duration to successful EVT closure was 25.5 days (range 5-80 days) with a total median length of stay of 61.5 days (range 40-145 days). Three patients did not demonstrate mucosal healing with EVT. Out of these; 2 patients (both anastomotic leak post oesophagectomy) were successfully managed conservatively through remaining nil by mouth with total parenteral nutrition (Mucosal healing shown after an average of 29 days) and 1 patient (post boerhave's) underwent oesophageal stenting over the defect, with mucosal healing shown at 126 days after original insertion of Eso-SPONGE. No patients required repeat surgical intervention.
There was one recorded adverse event in a patient who developed an anastomotic leak post oesophagectomy, who experienced proximal migration of the Eso-SPONGE after it had been left off suction, and developed an endo-bronchial fistula. This was successfully managed conservatively with confirmation of mucosal healing at 24 days.

Conclusions We show a high success rate of EVT- assisted closure with a low associated adverse event rate in a range of indications. Further experience with EVT will allow for further understanding of this technique in the management of perforations or post-surgical anastomotic leaks.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP263 Long term outcomes of endoscopic submucosal dissection for undifferentiated early gastric cancer, beyond expanded criteria

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Aims The aim of this retrospective study was to **analyze** the long-term outcomes of ESD carried out to treat undifferentiated EGC in two groups (**group A:** up to 2 cm, **group B:** 2-3 cm)

Methods Between January 2001 and March 2015, 104 patients with undifferentiated early gastric cancer (EGC) including poorly differentiated adenocarcinoma (**PD, n** = 66) or signet ring cell carcinoma **(SG, n** = 38) on preoperative biopsy underwent ESD (**group A:** 71cases, **group B**: 33cases) ,

Total ESD speciemens were evaluated en bloc resection, R0 resection, and curative resection (CR) and to evaluate long term outcome, annual endoscopic surveillance with biopsy and CT scan were done.

Results Mean follow up period in group A and B were 61.10 ± 38.12, 60.79 ± 47.75.

Mean age in **group A and B** were 52.90 ± 13.62, 57.00 ± 12.25

En bloc in **group A and B** were achieved in 92.9 %, 90.9 % of patients, respectively ***(NS).***

R0 resection in were achieved in 87.3 %, 51.5 % of patients, respectively ***(p < 0.05).***

Curative resection was 83.0 % in group A and group B was not include this definition.

Postoperative bleeding, perforation during the procedure, and delayed perforation were no significantly different in both groups, respectively.

Recurrence in group A and B were 5.6 %(n = 4), 18.1 % (n = 6), retrospectively **(p < 0.01). All cases with lateral margin positive required additional ESD (n = 2), desctructive therapy (n = 3), or surgery (n = 4) and no recurrence happened.**

No patient died of gastric cancer.

Conclusions In group B, R0 resection rate was lower than group A but R0 resection in both group were not different recurrence rate with long term follow up. Carefully, undifferented EGC with 2 to 3 cm in a size recommended ESD.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP264 Successful EUS-CDS for benign biliary obstruction after failed ERCP: a case series

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Aims In cases of endoscopic retrograde cholangiopancreatography (ERCP) failure in distal malignant obstruction, endoscopic ultrasound-choledochoduodenostomy (EUS-CDS) is a safe and effective second-line option with benefits over percutaneous transhepatic biliary drainage (PTBD). We aim to demonstrate technical and clinical success of EUS-CDS in benign biliary obstruction as definitive treatment or to facilitate an ERCP rendezvous procedure.

Methods A restrospective audit was conducted over 3 years of patients who had EUS-CDS for benign biliary obstruction. Technical success was mesaured by successful placement of a lumen apposing metal stent (6x8mm LAMS, all cases hot AXIOS stent Boston Scientific, Marlborough MA, USA) between the common bile duct (CBD) and duodenum. Clinical success was measured by resolution of cholangitis and improvement in liver function tests.

Results Six patients aged 62 to 91 across two tertiary centres who had either one or two failed ERCPs, in the context of a difficult scope position or inaccessible ampulla within a diverticulum, were managed with EUS-CDS. Technical and clinical success was achieved in all six patients (all cases were stone disease after failed cannulation, with CBD size range 13mm-19mm). There was one incident of cholangitis post-procedurally in the first patient of the series, successfully treated with a second procedure to place a double pigtail stent (DPS) co-axially in the LAMS. The subsequent five patients had a DPS inserted co-axially through the LAMS at the time of the EUS-CDS, with no episodes of cholangitis. There were no other adverse events. In 3 of the patients, the LAMS was intentionally left in situ long-term due to significant age and co-morbidities with no issues at follow up at 6 months. The other three underwent successful ERCP and bile duct clearance using a rendezvous approach via the LAMS. The LAMS were removed uneventfully after stone clearance 6 weeks later.

Conclusions EUS-CDS has become standard technique for biliary drainage in malignant biliary obstruction after failed ERCP [Teoh, 2023]. EUS-CDS has advantages over PTBD owing to its improved technical and clinical success and safety profile [Shairaiha 2017]. Our case series suggests EUS-CDS is a safe, effective, second-line therapy where ERCP has failed for benign disease, as biliary drainage can be achieved during the same endoscopy session, and ERCP can then be completed using rendezvous technique via LAMS. Rendezvous via LAMS has several advantages over standard EUS-guided rendezvous procedures. These include reduced likelihood of losing the wire when being retrieved at ERCP, avoiding peri-ductal bile leak, and safer and easier manipulation of a guidewire in the antegrade direction across the papilla as a balloon catheters can pass easily across the LAMS into the CBD and duodenum. [1–2]

EUS-CDS with LAMS should be considered after failed cannulation at ERCP in benign disease in carefully selected patients with sufficient extra-hepatic biliary dilatation. This approach also facilitates an easier ERCP rendezvous procedure. Placement of a co-axial DPS may prevent subsequent cholangitis in the context of stone disease.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP265 A challenging unexpected complication during Endoscopic Sleeve Gastroplasty: how to manage the anchoring of OverStitch Tissue Helix into the gastric wall

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Aims Bariatric endoscopy is a less invasive and safe approach for obesity management. Endoscopic sleeve Gastroplasty (ESG) consists of stomach remodeling using a suture device composed of a stapler and a dedicated device (Helix) for the traction of the gastric wall inside the stapler.

Methods Here we report the case of a 64-year-old woman with no relevant medical history who underwent ESG in July 2023 at our endoscopic Unit (Ente Ospedaliero Galliera – Genova). Her BMI was 38 and after an accurate assessment of her clinical and psychological status, an ESG using the OverStich (S. Capital of Texas Hwy, Suite 300 Austin, U.S.A.) was proposed.

Results During the procedure, after the execution of the fourth stitch in the second line of suture, the Helix got stuck into the gastric wall (figure 1a). Nevertheless, after several attempts to pull the Helix through the endoscopic channel, it remained locked into the gastric layers. In order to improve the strength of the pull on the gastric wall a standard biopsy forceps was unsuccessfully introduced through the scope and pushed on the gastric wall. Subsequently, a Pre-cut device, designed for Endoscopic Retrograde Cholangiopancreatography (ERCP) was introduced throughout the gastroscope channel to perform a mu-

cosa and submucosal cut closer to the Helix (Figure 1b). A standard Pre-cut cutting current was used. A 2 cm cut was performed causing the unlock of the Helix (figure 1c).

There was observed only a minor bleeding after the procedure. As a precautionary measure, two endoscopic clips were used in order to suture the small defect (figure 1d).

Conclusions In this clinical case, we reported the occurrence of an incidental anchoring of the Helix during an ESG. Although highly unlikely it is a potentially dangerous and challenging situation. Thinking out of the box, with an off-label use of an ERCP-dedicated device, we successfully manage this situation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP266 Reality Augmented Glasses Improves Ergonomics in Gastrointestinal Endoscopy

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Aims Endoscopists are at increased risk of musculoskeletal injuries (MSI). Poor endoscopic posture is known to cause MSI. In this study, we systematically evaluated the ergonomic benefits of medical augmented reality glasses (ARG) in gastrointestinal endoscopy.

Methods Screening gastroscopies were performed with and without ARG. The subjective experience was evaluated using a questionnaire-based NASA-Task Load Index (NASA-TLX). Biomechanical loads during endoscopy were captured using electromyography (EMG) sensors and motion tracking sensors. Perceived discomfort, muscle activity and body position were compared between ARG wearing group and non- ARG group.

Results Five endoscopists performed total of 200 upper gastrointestinal endoscopies; 100 procedures in ARG group and 100 procedures in non-ARG group. Mean NASA-TLX scores of the participants were lower when ARG was used compared to those with conventional monitor. ARG wearing group exhibited improvements in physical demand, effort, and frustration scores compared to non ARG group. Muscle activation was significantly lower in ARG group compared to non ARG group in sternocleidomastoid and trapezius muscles. IMU analysis showed a significant reduction in the proportion of high risk positions of the neck and torso in the ARG group.

Conclusions ARG was effective in improving the ergonomics of the examiner by correcting the bad posture of neck and torso during endoscopy. It reduces muscle fatigue and significantly corrects high risk posture that causes pain during endoscopy. The use of ARG in gastrointestinal endoscopy is expected to improve ergonomics for endoscopists.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP267 It's all about time: validation of an Asian model for colorectal ESD

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Aims Overcoming logistical challenges for the routine implementation of endoscopic submucosal dissection (ESD) at Western endoscopy centers requires accurate prediction of procedure times. The Zhongshan CR-ESD model, designed to predict difficulty of ESD procedures, has recently been updated. We evaluated the performance of the updated Zhongshan CR-ESD model in a Western ESD cohort.

Methods Records of consecutive patients who underwent single, non-hybrid colorectal ESDs before 2020 at three Dutch tertiary hospitals were retrospectively reviewed. The updated Zhongshan CR-ESD model included the four predictors of the previous model (tumor size, lesion circumference, anatomical location, morphology), along with preceding biopsy and narrow-band imaging international colorectal endoscopic (NICE) category to classify ESD difficulty into four groups: easy, moderate, difficult, and very difficult. The predicted outcome was ESD completion within 60 minutes. As exploratory analysis, we also evaluated the predictive performance of the model when changing the value of the dichotomization cut-off. [1–3]

Results A total of 435 colorectal ESDs were analyzed (92 % en bloc resections, mean duration 139 minutes, mean tumor size 39mm). Overall, 25 % of ESDs were classified as easy, 36 % as intermediate, 30 % as difficult, and 9 % as very difficult. In the original Eastern discovery cohort, the percentages were 42 %, 35 %, 20 %, and 3 %, respectively. Our cohort demonstrated a lower rate of ESDs completed within 60 minutes (14 %) compared to the original cohort (54 %). Completion rates within 60 minutes per category were: 27 % for easy, 13 % for intermediate, 9 % for difficult, and 5 % for very difficult (75 %, 49 %, 26 %, and 8 % in the original discovery cohort, respectively). The area under the curve (AUC) of the updated Zhongshan CR-ESD model for colorectal ESD duration < 60 minutes was 0.675 (95 %-CI 0.592-0.748), which was lower than the AUCs in the original cohort (discovery cohort: AUC 0.738, 95 % CI 0.688-0.788, internal validation: AUC 0.782, 95 % CI 0.714-0.849). Stratified analyses based on ESD experience (rank number of ESD > 40 vs. ≤ 40; i.e. same cut-off for experts/non-experts used in the original discovery cohort) and endoscopy center yielded comparable AUCs (range 0.622-0.664). When increasing the dichotomization cut-off for the outcome, we found a proportional increase in both the AUC and the proportion of ESDs completed within that time. When using a dichotomization cut-off of 120, 180, 240, and 300 minutes, the AUCs were 0.716, 0.746, 0.814, and 0.857, and the proportions of ESDs completed within the cut-off time were 48 %, 75 %, 90 %, and 95 %, respectively.

Conclusions In a Western setting, the updated Zhongshan CR-ESD model has a relatively lower performance in predicting ESD completion < 60 minutes. The prediction model seems more useful for predicting very long procedure times (> 2-3 hours) of colorectal ESDs at Western endoscopy centers. Adjusting the model, e.g. by including other relevant factors like ESD experience, may enhance the predictive performance.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP268 Tolerability and safety of cholangioscopy and lithotripsy under conscious sedation for refractory choledocholithiasis: experience in a cohort of elder or co-morbid patients

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DOI 10.1055/s-0044-1783557

Aims Cholangioscopy with electrohydraulic lithotripsy (C + EHL) is an effective treatment for choledocholithiasis refractory to conventional endoscopic retrograde cholangiopancreatography (ERCP). Complexity and long duration of the procedure has traditionally required the use of general anaesthesia (GA),

but older patients with co-morbidities may not be candidates for this. We assessed the tolerance, safety and efficacy of C + EHL under conscious sedation for refractory choledocholithiasis in a cohort of patients with these characteristics.

Methods Retrospective analysis of C + EHL procedures under conscious sedation from October 2022 to September 2023 performed in a tertiary centre. ERCP Spyglass DS1 (Boston) and Autolith Touch II EHL Generator were used for all procedures.

Results 15 C + EHLs were performed in 12 patients. Mean age was 77.25 years (range 59-93) and M:F ratio was 10:2. Seven (58 %) were tertiary referrals. Major co-morbidities included cardiovascular (42 %), respiratory (42 %) and cerebro-vascular (25 %). Patients had 0-3 (mean 1.3) conventional ERCPs prior to C + EHL. Patents were selected for conscious sedation based on existing internal protocols for GA and one-to-one assessments of tolerability based on prior conventional ERCP experience. All procedures were done under conscious sedation using intravenous Fentanyl and Midazolam. Mean Fentanyl dose was 120 mcg (range 75-200) and the mean Midazolam dose was 4.75mg (range 3-8). No reversal agents were required. Mean time for procedure was 58 minutes (range 34-86). A mean of 1.25 procedures were required to achieve duct clearance (range 1-3). Tolerance scores were reported by nursing team: minimal discomfort in 1 procedure (7 %), mild discomfort in 5 (33 %), moderate discomfort for 7 (47 %), severe discomfort for 1 (7 %); the score was not documented for 1 procedure (7 %). Patients were also contacted by telephone and asked to score their comfort level subjectively: no discomfort was reported in 10 cases and mild discomfort in 2; 2 patients could not be contacted and one patient had subsequently died (not related to C + EHL). There were no complications in the 15 procedures. One patient had transient oxygen desaturation but recovered spontaneously. 11 patients were admitted for intravenous antibiotics for 24hrs post-procedure except 1 patient who refused admission.

Conclusions Spyglass EHL under conscious sedation is reasonably well tolerated – patients' recall of discomfort was notably lower than contemporaneous nursing assessment. Moreover, our experience suggests it is safe and efficient. With the current paucity of available GA lists, an aging population and high anaesthetic risk due to comorbidities, C + EHL under conscious sedation is a feasible option. A robust MDT approach is required to ensure identification of suitable patients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP269 Factors affecting radiation exposure to patients during endoscopic retrograde cholangiopancreatography (ERCP)

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Aims The primary aim of this study was to measure the radiation doses to patients during ERCP performed at our center and compare the same with existing literature. The secondary objectives of the study were to identify patient factors and procedural factors that are associated with increased radiation exposure during ERCP

Methods In this retrospective, single-center study of 375 consecutive patients who underwent ERCP between January 2023 and October 2023, we analyzed the influences of indication of ERCP , ERCP ASGE difficulty grading and presence of native papilla on the following radiation exposure parameters – Cumulative radiation dose in milligray (mGy) , dose area parameter in Gray – centimeter^2, total fluoroscopy time and number of fluoroscopy shots. Statistical software used was SPSS version 24 and statistical tests performed were One-way ANOVA and Independent t-test.

Results A total of 375 patients who underwent Endoscopic retrograde cholangiopancreatography (ERCP) were included in the study .Patient radiation exposure levels were recorded as follows .Mean cumulative radiation dose in mGy was 44.54 ± 2.35. Mean radiation exposure dose in terms of Dose area product(Gy –cm^2) was 12.49 ± 0.77.Mean fluoroscopy time was 6.58 ± 4.06 minutes and average number of fluoroscopy shots used during ERCP was 26.46 ± 1.04 . There was no statistically significant difference between native papilla group and prior sphincterotomy group in terms of the four radiation exposure parameters measured in the study. Patients undergoing ERCP for benign biliary stricture as indication and ERCP difficulty grading of ASGE grade 2 had highest radiation exposure in terms of mean cumulative radiation exposure dose , dose area product (DAP) and number of fluoroscopy shots and this was statistically significant .Surprisingly patients who underwent ERCP procedure with difficulty grading of ASGE grade 3 had lesser radiation exposure in terms of parameters assessed compared ERCP procedures with ASGE grade 2 difficulty

Conclusions Radiation dose parameters measured in our study were lesser compared to existing literature but were still significant . Amount of radiation that a patient was exposed to was influenced by the nature of the indication , disease behavior and complexity of the ERCP procedure .Radiation dose parameters such as dose area product (DAP) , median cumulative dose exposure and total fluoroscopy time can be used as ERCP quality indicators . Further similar studies are required before we can prescribe standardized diagnostic reference levels for radiation in ERCP. [1–3]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP270 The use of Endoscopic Full Thickness Resection can avoid surgical resection in benign colorectal pathology: A retrospective review in the South-Eastern Health and Social Care Trust, Northern Ireland

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Aims Endoscopic full thickness resection (eFTR) is an advanced endoscopic technique for resection of complex gastrointestinal lesions. We aim to report outcomes for patients undergoing eFTR who were identified as having recurrent polyps despite repeat endoscopic attempts at clearance, lesions that appeared suspicious for malignancy on eFTR but were benign on subsequent histological assessment, or other benign indications. These patients in our trust would historically have been referred for consideration of surgical intervention.

Methods A retrospective review was carried out on all patients having eFTR performed in benign colorectal disease in the South-Eastern Health and Social Care Trust. Data was collected for patients referred from October 2018 to April 2023 inclusive. Patients were identified via the Trust SharePoint dataset, theatre management system (TMS©) and the electronic care record (ECR©). All patients were discussed at the significant polyp early colorectal cancer (SPECC) multidisciplinary team meeting pre-procedure and following results of histology with follow-up arranged as per local guidelines. Primary outcome measures included were need for surgical intervention, recurrence rate and complication rate.

Results A total of 21 patients were identified. All procedures were carried out as day procedures with conscious sedation and no anaesthetist.

6 of these patients underwent a hybrid EMR/eFTR approach for polyps that had a suspicious appearance for malignancy after EMR. Median age was 76 years (range 65-88 years). Median polyp size was 35mm (range 10-60mm). One patient (16.7 %) had recurrence on follow-up scope which was managed successfully by EMR.

13 of these patients underwent eFTR for recurrent benign polyps. The median age was 72 (range 43-83 years). Median polyp size was 30mm (range 10-60mm). 3 (23.1 %) had recurrence on follow-up scopes, with one patient managed by EMR, one by repeat eFTR and one felt to be too frail for any further follow-up.

One patient had eFTR of appendiceal stump for repeat appendicitis, and one patient had eFTR for exclusion of Hirschprung's disease.

None of the 21 patients required surgical intervention following eFTR.

One patient (4.8 %) required overnight admission for observation but was managed conservatively and discharged the following day. There were no episodes of clinically significant bleeding or perforation requiring surgical intervention.

Conclusions eFTR is a safe and effective method for management of benign colorectal disease in the context of a multi-disciplinary team. It can be used for definitive treatment of recurrent benign polyp disease, Hirschprung's exclusion, recurrent appendiceal stump inflammation and for accurate histological staging of ultimately benign complex polyps that previously would have required surgical resection.

Long-term follow-up data on these patients is required.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP271 Lumen-apposing metal stents: a single-centre experience

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Aims Luminal apposition stents (LAMS) are indicated in the drainage of pancreatic collections, gallbladder and bile duct. In addition, it has been used for other non-guideline purposes such as gastroenteroanastomosis and drainage of post-surgical collections. Our objective is to analyze the experience in our center.

Methods We have carried out a retrospective descriptive study including all the LAMS that have been placed since 2018. We have analyzed the indications for drainage, technical success (defined as placement of the prosthesis in the target area), therapeutic success (defined as a reduction in peripancreatic collections greater than or equal to 50 %; in the indication of biliary drainage as a decrease in basal bilirubin levels of 50 % and in gastroenteroanastomosis as resolution of gastric obstruction and adequate oral tolerance). [1–2]

Results A total of 30 LAMS have been placed. The indications from highest to lowest frequency were: 73 % (n = 23) drainage of peripancreatic collections (73 % (n = 17) necrotic; 27 % (n = 6) liquid), 13 % (n = 4) biliary drainage, 6.6 % (n = 2) gastroenteroanastomosis and 3.3 % (n = 1) drainage of postsurgical collections. Technical success was achieved in 93 % (n = 28) of cases and therapeutic success in 60 % (n = 18), with a complication rate of 10 % (n = 3).

Conclusions The main indication for LAMS in our center is the drainage of pancreatic collections with a technical and clinical success rate of 100 % in the case of liquid collections and a low global rate of complications. In addition, it has been used in off-guideline indications such as biliary drainage and gastroenteroanastomosis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP272 Patient Perspectives on ACE (At-home video Capsule Endoscopy) : A Novel Approach to Gastrointestinal Endoscopy

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Aims Video capsule Endoscopy involves patients swallowing a battery-powered capsule containing a small miniature camera to capture images of the gastrointestinal (GI) tract. Unlike traditional GI investigations, this procedure allows patients to maintain their daily routines while the capsule is in transit, offering comfort, reduced embarrassment, and a non-invasive nature of GI examination. During the Covid-19 pandemic, an "At-home Capsule Endoscopy" (ACE) was developed by University College London Hospital, allowing patients to complete the test remotely with virtual medical support. This study evaluates patient perceptions and satisfaction with ACE.

Methods Between April 2021 and June 2022, 100 patients that underwent ACE were offered a self-reported, anonymous questionnaire. The questionnaire featured five-point Likert response options ("to a very small extent", "to a small extent", "somewhat", "to a large extent" and "to a very large extent") and inquired about their experiences and perceptions before, during and after the ACE. Additional inquiries included overall satisfaction on a scale of 1 to 10 and preferences for future bowel investigations, with more emphasis on the lower GI tract. Descriptive statistics were used for data analysis.

Results A total of 84 (84 % response rate) patients completed post-ACE questionnaires. The average age was 40 years (SD 15.9, Range 15-85), 60.63 % were females. Nearly 95 % of patients reported adequate support from hospital staff during ACE. The vast majority of patients reported being able to swallow the capsule without any problems (91.3 %), did not report pain (92.1 %), embarrassment (96.1 %) or tiredness from the procedure (59.8 %). Significantly, almost 80 % expressed high satisfaction levels ('to a large' or 'very large extent') with the at-home procedure, and 83.3 % preferred future tests to be conducted at home rather than in a hospital setting. A considerable portion of ACE patients (42.9 %) maintained regular work activities on the test day, while 5 respondents (5.9 %) took only a half day off, and 26 respondents (31 %) took a full day off from work, (20.2 % no response). Many respondents indicated that if the procedure had been administered at the hospital, they would have needed to take a full day off from work (54.2 %) and incurred up to atleast £10 in transportation costs (54.2 %).

Conclusions This study is the first to present patient experience data on at home capsule endoscopy and demonstrates it is both feasible and well-received by patients in terms of not causing pain, embarrassment or anxiety and saving time off work. Our findings indicate the potential of ACE as a more attractive, favorable, and less disruptive alternative to traditional at hospital GI investigations, such as conventional colonoscopy. Future research should compare remote with on-site capsule endoscopy to further elaborate on true patients' preferences and identify specific patient groups that might benefit more from this approach.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP273 Endoscopist sentiments on artificial intelligence in endoscopy: A Large-scale intercontinental opinion survey

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Aims In recent years, there has been rapid development of AI devices in endoscopy. Little is however known about endoscopist perception regarding AI in clinical practice.

The aim of this study was to undertake an international endoscopist opinion survey on behalf of the World Endoscopy Organization AI committee about the use of artificial intelligence.

Methods A prospective questionnaire study was conducted as part of the World Endoscopy Organization AI committee activities. The committee developed 23 statements on the use of AI in endoscopy which were distributed to endoscopists using an online survey platform. Endoscopists responded to each of the statements by using a 5-point Likert-scale, ranging from strongly disagree (1) to strongly agree (5).

Results In total, 465 endoscopists completed the survey (from 83 countries). The endoscopists background was general (36 %), specialist interventional (55 %) and trainee (9 %). 39 % had experience of using AI in clinical practice. The majority believed that AI would improve endoscopy quality (90 %), efficiency (87 %) and patient outcomes (86 %). Most thought that CADe would help detect clinically relevant polyps (86 %) and upper GI neoplasia (87 %). 68 % felt more comfortable leaving in a diminutive rectosigmoid polyp with CADx assistance. Financial re-imbursement was considered important (72 %) and most were concerned about medical liability (47 %), with a mixed view on accountability (endoscopist 57 %, manufacturer 22 % and hospital 8 %). Potential de-skilling was a concern (37 %). A small majority felt that AI would lead to unnecessary resections and biopsies in the upper and lower GI tract, and also lengthen procedure times. Overall, the majority would use upper GI CADe (90 %), lower GI CADe (83 %) and CADx (87 %) when available.

Conclusions In this international endoscopist survey, participants strongly believed that AI would improve endoscopy quality and outcomes. Financial re-imbursement, concerns about medical liability and potential de-skilling are important issues. A small majority felt that AI would lead to unnecessary resections and increase procedure times. Overall, the vast majority would use AI when available.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP274 Precise endoscopic APC application using an new over-the scope device

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Aims Guidelines recommend ablation of residual Barrett´s mucosa after sucessfull endoscopic treatment in Barrett´s early carcinoma. Recent data indicate a non-inferiority of argon-plasma-coagulation (APC) compared with standard ablation technique. A limiting aspect is the fact that APC is only applicable via through the scope probe which leads to an impaired navigation for precise treatment.

Methods A new developed over-the-scope-cap was used for endoscopic ablation of residual Barrett´s mucosa (C2M6) in a 66-y-old patient after sucessfull ESD (pT1a, R0). The cap is a roundly shaped transparent cap with a side opening that is attached to the distal tip of the endoscope. Standard APC probe is inserted into the cap an fixed externally. The probe is thereby deflected to an angle of 52 °.

Results After precise endoscopic ablation of the targe only small residual islet of Barrett´s mucosa was visible in surveillance endoscopy. No strictures or clinically relevant scars occured.

Conclusions A new deflecting Cap is effective for precise navigation and APC-therapy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP275V Dilatation of ductal pancreatic stricture with Soehendra catheter asisted by pancreatic rendezvous

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Abstract Text We present a 46-year-old male patient with past medical history of chronic pancreatitis of toxic etiology and a looped pancreatic ductal fusion as an anatomical variant. Considering the findings of preceding ERCPs, we decided to perform a pancreatic rendezvous. Once the rendezvous was completed, a catheter was introduced through the guidewire, verifying the presence of a very resistant stricture at the level of the ductal fusion that could not be crossed with the catheter nor a 4 mm dilator balloon. Therefore, we passed a Soehendra catheter through the stricture, allowing the progression of the catheter and the dilatator balloon. Afterwards, we dilated the stenosis up to 4 mm. Finally, we introduced a plastic pancreatic stent of 5 cm y 5 Fr checking the correct drainage.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/b305aa4e-7a1d-4165-8ab7-5591277d6212/Uploads/13821_SOEHENDRA_V3-0.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP276 Colorectal Cancer Screening with Fecal Immunochemical Test (FIT) in Adults Aged 45 to 49 Years Old

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Aims Addressing the rising incidence of colorectal cancer (CRC) in patients under 50 years, the U.S. Preventive Services Task Force (USPSTF) issued a statement in May 2021 recommending expanding the ages for colorectal cancer screening to 45 to 75 years. However, this recommendation has not been validated worldwide.

This study aims to investigate the trend of colorectal cancer (CRC) screening through fecal immunochemical test (FIT) in adults aged 45 to 49, following the aforementioned USPSTF recommendation.

Methods An observational, retrospective cohort study was conducted in a tertiary care center in Mexico. Patients aged 45-49 with average risk who underwent screening with FIT test between June 2021 and May 2023 were included and compared with those who underwent screening from June 2019 to May 2021. Positive FIT tests were defined as > 20 ug Hb/g. Patients for whom the indication for FIT test was not average-risk CRC screening were excluded.

Results In the period from 2019 to 2021, only 157 FIT tests were requested for individuals aged 45-49 (2.3 % of total FIT requests), compared to 484 tests in the two years following the guideline modification (4 % of total FIT requests) (p > 0.0001).

Of the 484 patients, 100 were excluded due to incomplete medical records or an indication for FIT test different to CRC screening. Of 384 patients, the mean age was 47.5 ± 1.2 years, with 72 % being women. The FIT test positivity rate was lower compared to those over 50 (3.1 vs. 5 %, p = 0.09). Twelve FIT tests (3.1 %) were positive. Among the positive cases, nine underwent colonoscopy, and four showed abnormal findings. Two cases revealed advanced adenomas (both tubulovillous adenomas > 10mm), which were treated with endoscopic mucosal resection (EMR). No cases of cancer were detected. [1–3]

Conclusions Following the USPSTF's extension of CRC screening, we observed a substantial increase in FIT test requests among individuals aged 45-49. Although the positivity rate of FIT tests in this age range was low, it often led to the detection of early neoplastic lesions, underscoring the relevance of extended screening. The utilization of CRC screening in individuals under 50 is on the rise, but further studies are warranted to assess its impact.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP277 Duodenal haematoma secondary to endoscopic treatment of duodenal bleeding

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Abstract Text We report the case of a 75-year-old woman with acquired von Willebrand disease (AVWD) who presented with a recurrent upper gastrointestinal bleeding. Gastroscopy revealed a Dieulafoy's lesion in the duodenal bulb and, in front of it, a Forrest IB ulcer. Both lesions were treated with adrenaline injection and thermal coagulation using haemostasis forceps, observing a decrease in haemoglobin in the next days with no new bleeding episodes. An abdominal computed tomography (CT) scan showed a duodenal haematoma in contact with the treated area, with a prior CT scan days before the endoscopy with no presence of it.

Duodenal haematoma is a rare complication of therapeutic procedures for upper gastrointestinal bleeding. One of its main risk factors is the presence of coagulopathies, such as AVWD in our patient. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP278 Single session EUS-ERCP in the management of pancreatic cancer: experience in a tertiary referral center in Greece

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Aims Endoscopic ultrasound-guided fine-needle biopsy (EUS-FNB) and endoscopic retrograde cholangiopancreatography (ERCP) are complementary procedures, increasingly performed in a single session under one single sedation. This study was aimed to evaluate the procedural outcomes of single-session EUS + ERCP and its impact on length of hospitalization in pancreatic cancer patients.

Methods We retrospectively evaluated a prospectively maintained EUS-ERCP database, (January 2022-July 2023). From January 2023 onwards, patients with an indication for both EUS and ERCP were preferentially booked for a single-session procedure, subjected to slot availability. Consecutive pancreatic cancer patients were analyzed, subdivided into three groups: Group-A (single-session EUS + ERCP), Group-B (undergoing both EUS and ERCP, performed in separate sessions during their hospitalization) and Group-C (undergoing only EUS or only ERCP). The following outcomes were analyzed: 1) technical success of EUS-FNB tissue acquisition, 2) technical success of ERCP-guided biliary stenting, 3) rates of overall adverse events and 4) length of hospitalization.

Results A total of 114 patients were included (55.4 % males, mean age 72.4 years), of whom 30 (26.3 %) in Group-A, 30 (26.3 %) in Group-B and 54 (47.4 %) in Group-C (only EUS, n = 28; only ERCP, n = 26). EUS preceded ERCP in all patients in Groups A and B. No statistically significant differences were detected concerning rates of successful EUS-FNB tissue acquisition (Group-A: 90 %, Group-B: 93.3 %, Group-C: 100 %, p = 0.25) successful ERCP-guided biliary stenting (83.3 %, 86.7 % and 85.2 % respectively, p = 0.94) and the overall rates of adverse events (3.3 %, 10 % and 3.7 % respectively, p = 0.39) among the three study groups. The median length of hospitalization was significantly shorter in Group-A (2 days, range:1-3) compared to Group-B (3 days, range: 1-35) (p = 0.046).

Conclusions A single session EUS + ERCP approach is similarly effective and safe, whereas it significantly reduces hospitalization duration, as compared to that of the procedures performed separately.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP279 Endobiliary radiofrequency ablation – a promising new tool to prolong stent patency in patients with malignant biliary obstruction

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DOI 10.1055/s-0044-1783568

Aims The main approach for the management of unresectable malignant biliary obstruction is ERCP with stenting followed by palliative chemotherapy. However, a major concern is the rate of recurrent biliary obstruction/RBO/. Endobilliary radiofrequency ablation (EB-RFA) is a new endoscopic technique that can be an adjunctive tool in prolonging the period of stent patency and patient survival.The primary endpoints were to evaluate the correlation between the period of stent patency,type of placed stents and subsequent chemotherapy in patients with malignant biliary obstruction/MBO/treated with EB-RFA. Secondary endpoints were the overall efficacy and safety of the procedure in terms of survival and adverse events/AE/.

Methods We performed a retrospective analysis of a prospective database including all consecutive patients who underwent EB-RFA for the period July 2021 – November 2023.26 procedures in 24 patients who were unresectable or poor surgical candidates were performed. Endobiliary RFA/EB-RFA /catheter

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(ELRA, STARmed, Taewoong Medical) and RF generator system (VIVA combo, STARmed) were used in 24 of the procedures. After passing a guidewire the catheter was positioned at the targeted lesion, followed by 120 s of ablation (target temperature 80 °C, 7–10 W, temperature control mode.

Results The patients were divided in two groups of patients depending on the type of stent placed – 7 patients with plastic stents after RFA,and 17 patients with metal. The mean period of stent patency defined as the time between the date of the procedure and the last follow-up of the patient without signs of stent occlusion was 261.50 (142.50 + /-312.75) days. For the group with plastic stents, the period was 196.57 ± 101.83 days, and 260.29 ± 132.05 days for the group with metal stents – the difference was not statistically significant. In 15 patients/62,5 %/ there was chemotherapy with Paclitaxel/Gemcitabine after the procedure – in 2 patients with plastic stents/8,3 %/ and 13 patients /54,2 %/ with metal. We found an association between the period of stent patency and symptom-free survival and placement of metal stents followed by chemotherapy – Pearson $\chi 2$ test = 4.854, p = 0.028. The longest period of stent patency is observed in patients who receive metal stents and chemotherapy after EB-RFA. The rate of the AE was 18.75 %/n = 3/ – one patient with self-limited bleeding; one patient with postprocedural cholangitis and one patient with postprocedural biloma. There were no deaths or ICU admissions. We experienced four episodes of RBO – two managed with a second session of RFA and two only with stent exchange.

Conclusions ID-RFA combined with the placement of metal stents followed by chemotherapy is a promising tool to improve outcomes in patients with MBO with high efficacy and a good safety profile. Therefore ID-RFA can be proposed as adjunctive treatment in patients with MBO although more randomized studies are needed.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP280 Non-Conventional Dysplasia In Patients With Inflammatory Bowel Disease (IBD) And Colorectal Adenocarcinoma (CRC)

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DOI 10.1055/s-0044-1783569

Aims To assess the incidence of antecedent non conventional lesions in patients with IBD who developed CRC. And to compare these findings in the pre and post high definition endoscope eras.

Methods A case-cohort study was performed to include patients with a diagnosis of IBD with or without CRC at a single large referral center who underwent at least two surveillance endoscopic procedures between 1/1/2007 and 5/31/2023. Relevant demographic, clinical, endoscopic, and histologic data were abstracted, including location and number of dysplastic lesions predating diagnosis of CRC. Non-conventional lesions included serrated change, indefinite for dysplasia, and hyperplastic lesions as documented in pathology reports. A Cox model with Prentice weights for case-cohort design was used to estimate the effect of number of lesions (square-root transformed) on the risk of CRC.

Results In total, 87 patients with IBD and CRC and 200 patients with IBD without CRC were identified. Of the cases (63.2 % male, median age 50.6 years at first surveillance endoscopy), a majority had ulcerative colitis (59.8 %) with extensive colitis being the most common type (88.5 %). Fifteen (28.8 %) had backwash ileitis and 25 (28.7 %) had primary sclerosing cholangitis. For the endpoint of CRC, the most common locations were rectosigmoid (44.8 %) and right (41.4 %) colon. At the time of CRC diagnosis, a median of 3 (IQR 1, 5) NC lesions were identified per subject. Both conventional (HR 2.18, 95 % CI 1.34-3.52) and NC (HR 2.28, 95 % CI 1.59-3.26) lesions were associated with increased risk of CRC. There was no significant evidence (p = 0.89) that the risk was different between these two classes of lesions. Conventional lesions (HR 1.79, 95 % CI 0.84-3.81) were detected less in the pre-high-definition (HD) era in comparison to NC lesions (HR 2.39, 95 % CI 1.60-3.57). In the post-HD era, conventional lesions (2.79, 95 % CI 1.63-4.77) were more frequently detected in comparison to NC lesions (HR 1.62, 95 % CI 0.86-3.06).

Conclusions Both conventional and NC lesions seem to be associated with increased risk of CRC. In the post-HD endoscopic era, we are better able to detect differences between the endoscopic appearance of conventional and NC lesions. We hypothesize that in the post-HD era we are better identifying conventional lesions thus resulting in significance of conventional lesions post-HD compared to NC in pre-HD. This may also be related to simultaneous evolution in the histopathological definition of these types.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP281 Gastritis cystica profunda: a retrospective case series study

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Aims Gastritis cystica profunda (GCP) is a rare entity characterised by the cystic dilatation and foveolar hyperplasia in the mucosa and submucosa. The etiopathogenesis is unknown. It has been described in chronic inflammatory situations: gastric surgery, *Helicobacter pylori (H.pylori)* infection, chronic gastritis or biliary reflux. Diagnosis is histological based on cystic dilatation of the glands in the mucosal and submucosal layer, foveolar hyperplasia and inflammatory infiltrate.

There are few studies in the literature. We present a series of cases in patients with no history of gastric surgery, analysing their baseline characteristics, symptoms, endoscopic findings, treatment and recurrences.

Methods Retrospective, single-tertiary care centre study, in which cases of deep cystic gastritis were collected from the Pathology Department between 2011-2023.

We obtained demographic and clinical variables, chronic use of proton pump inhibitors (PPIs), laboratory findings, presence of *H.pylori*, treatment and recurrence of these lesions.

Results Six cases were found: 4 females and 2 males. The mean age was 72.6 years. No patient had a history of previous gastric surgery. In 5/6 (83 %) gastroscopy was performed for digestive symptoms: 2/6 (33 %) for dyspepsia, 2/6 (33 %) for gastro-oesophageal reflux disease (GORD) and 1/6 (17 %) for anaemia. Only 1 (17 %) was an incidental finding. No relevant laboratory findings were found, except for anaemia in one case.

The most frequent location was the antrum 3/6 (50 %), followed by fundus 2/6 (33 %) and body 1/6 (17 %).

H.pylori infection was found in only one patient. 4 patients had a history of hyperplastic gastric polyps.

The endoscopic findings described in all cases were polypoid lesions varying in size from 7 to 50 mm. Treatment undertaken was en bloc mucosectomy in those ≤ 20 mm and fragment mucosectomy in those > 20 mm. In 4 patients (67 %) polyps recurred.

Histology described cystic dilatation of the deep glands, the glandular epithelium was cylindrical with no evidence of dysplasia. The surrounding mucosa had chronic atrophic gastritis with intestinal metaplasia in most cases (67 %) and inflammatory infiltrate in some cases (37 %). [1–4]

Conclusions GCP is a rare and poorly recognised condition with an unclear etiopathogenesis. The definitive diagnosis is histological. Determining the neoplastic potential of these lesions would be the key to establish the best treatment and follow-up.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP282V An atypical treatment for Buried Bumper Syndrome

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DOI 10.1055/s-0044-1783571

Abstract Text Introduction: Buried Bumper Syndrome (BBS) is defined as the migration of the internal bumper of a percutaneous endoscopic gastrostomy (PEG) between the gastric and the abdominal wall. Case presentation**:** We present the case of a 62-year-old male with a PEG tube placement by per-oral pull technique. After repeated attempts of self-removal, the PEG tube was retrieved by "cut and push" method. Afterwards, the patient presented with percutaneous gastric fluid discharge and periorificial ulceration. The CT scan showed a foreign body in the anterior gastric wall. Endoscopic submucosal dissection (ESD) was the treatment of choice. The exposed buried bumper was removed by a rat tooth forceps. Conclusion: ESD is a safe and less invasive alternative, with lower complication rates and a shorter recovery time. [1–4]

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/b7836a13-ef0c-4716-b323-5b1a9dc10733/Uploads/13821_Abstract_ID%20000882%20(1).mov

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP283V Ischemic cholangiopathy secondary to hepatic artery thrombosis diagnosed by endoscopic ultrasound

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DOI 10.1055/s-0044-1783572

Abstract Text Hepatic artery thrombosis (HAT) is the most common vascular complication and the first cause of ischemic cholangiopathy (IC) in liver transplantation (LT). 62-year-old male LT in 2005, admitted for abdominal pain and fever, with elevated bilirrubin and leucocytosis. MRI describes intrahepatic bile duct (IHBD) dilation and anastomotic stenosis. EUS revealed hyperechogenic, heterogeneous, poorly defined images, which condition retrograde dilations of IHBD. Under suspect of IC, a Doppler-US was requested, revealing a subacute HAT, hepatic infarction and biliar duct necrosis. The gold-standard test for HAT diagnosis is Doppler-US, and for IC, MRI. EUS could play a relevant role in this entity diagnosis, although it is not well described yet. [1–4]

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/e55ce268-65e5-42c1-81b9-d1df90b4e966/Uploads/13821_EUS_HAT.mp4

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eP284 Giant fibrovascular polyp of the esophagus managed endoscopically – a case report with images

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DOI 10.1055/s-0044-1783573

Abstract Text An 68 year old woman complained of substernal discomfort and occasional regurgitation of a fleshy mass. There was no history of weight loss, dysphagia or dyspnea. Upper endoscopy revealed a polypoid digitiform mass with a single pedicle arising from the upper esophagus and ending 8 cm below. The CT scan demonstrated an elongated intraluminal esophageal mass extending from the cervical esophagus with a longitudinal length of more than 7 cm. Endoscopic ultrasound revealed a subepithelial lesion sparing the muscaris propria layer. The decision was made to proceed with endoscopic polypectomy, which was successfully performed using a hot snare after prophylactic hemostasis with an endoloop. Histology revealed a fibrovascular polyp. The patient had an uneventful recovery and became asymptomatic. We are presenting this case due to it's rarity and atypical presentation. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP285 Endoscopic ultrasound-guided biliary drainage vs. endoscopic retrograde cholangiopancreatography for primary drainage in patients with distal malignant biliary obstruction: systematic review and meta-analysis of randomized controlled trials

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DOI 10.1055/s-0044-1783574

Aims We aimed to assess the pooled efficacy and safety of Endoscopic ultrasound-guided biliary drainage vs. endoscopic retrograde cholangiopancreatography for primary drainage in patients with distal malignant biliary obstruction.

Methods Database search was performed to identify RCTs comparing EUS-BD to ERCP for primary biliary drainage in patients with DMBO. Primary outcome was technical success. Secondary outcomes were clinical success, adverse events (AEs), severe AEs rate, mean procedure time, 1-year stent patency, and overall survival. Relative risk (RR) with 95 % confidence interval (CI) were calculated using fixed-effect model

Results Five studies involving 519 patients were included. Pooled technical success rate was significantly higher in patients who underwent EUS-BD (RR 1.09; [1.03–1.16]; P = 0.004), while clinical success was similar (RR 1.01; [0.95–1.08]; P = 0.68). 1-year stent patency was significantly higher in EUS-BD group (RR 1.14; [1.05–1.25], P = 0.003), with significantly lower reintervention (RR 0.58; [0.38–0.88]; P = 0.012). A trend towards a lower AEs (RR 0.69; [0.47–1.01]; P = 0.06) and severe AEs (RR 0.97; [0.14–6.82]; P = 0.07) was observed in EUS-BD. Procedure time was significantly lower in EUS-BD (standardized mean difference -2.36; [-2.68 to -2.05]; P < 0.001). Patients in the EUS-BD arms showed longer overall survival (standardized mean difference 0.58; [0.37 to 0.78]; P < 0.001). Subgroup analysis according to type of stent used for EUS-BD showed that the three studies conducted with SEMS accounted for the higher 1-year stent patency rate and for the reduced need for reintervention and incidence of AEs, while the studies conducted with LAMS accounted for the improved technical success rate and reduced mean procedure time

Conclusions EUS-BD could be considered a valid first-line approach for DMBO due to good performance observed. EUS-BD showed higher pooled technical success rate and stent patency compared to ERCP, with similar clinical success rate and safety profile.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP286 Upper digestive hemorrhage : clinical, endoscopic and evolutionary particularities between patients with community and intra-hospital hemorrhage, prospective study

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DOI 10.1055/s-0044-1783575

Aims The occurrence of upper GI hemorrhage (UGI) remains a potentially serious event, most often resulting in emergency endoscopy even though the majority of UGI is not immediately life-threatening. However, there is a lack of studies comparing the epidemiological profile, risk factors, and endoscopic management between non-hospitalized patients newly admitted to the emergency department for upper GI bleeding (HDH) and those already hospitalized. The purpose of this study was to compare the clinical, endoscopic, and evolution aryfeatures between patients with community-acquired and in-hospital hemorrhage.

Methods This is a prospective cross-sectional single-center study about 332 patients, conducted over a one-year period between June 2022 and August 2023. We included in our study all patients admitted to our training in the emergency endoscopy unit for HDH.

We divided our patients into 2 groups, group A corresponding to patients with community hemorrhage and group B corresponding to patients with in-hospital hemorrhage.

Results Among the 332 FOGD sperformed for HDH, 81 % of the cases (n = 269) presented with community hemorrhage versus 19 % (n = 63) with intrahospital hemorrhage.

For group A the meanage was 58.8 ± 17.2 years (17-90 years) with a M/F sex ratio of 2.2. 20.44 % had comorbidities, the endoscopy was described as abnormalin 88.9 % of the cases, the cause of which was dominated by ulcer originin 42 % of the cases, followed by varicose originin 21 % of the cases and neoplastic originin 11 % of the cases, active bleeding was foundin 13.3 % of the cases, and no deaths occurred.

For group B, the averageage was 61.7 ± 14.2 years (17-88 years) with a sex ratio M/F of 3.5. 58.7 % had comorbidities, the endoscopy was described as abnormalin 85.7 %, the cause of which was dominated by ulcer originin 51 %, followed by neoplastic origin, active bleeding was foundin 26.9 % of the cases, 3 cases of death occurred post-endoscopy in patients who had already been hospitalized in the intensive care unit for another reason

There was no statistically significant difference between the two groups A and B concerning the age of the patients (p = 0.21), the sex (p = 0.19) and the origin of the bleeding (p = 0.23). On the other hand, there was a statistically significant difference between the two groups A and B concerning the presence of comorbidities (10.9 % vs. 40.2 %, p = 0.01), the use of antithrombotic drugs (16.4 % vs. 30, 2 %, p = 0.012), the presence of active bleeding (16.1 % vs. 32.1 %, 0.008), the use of an endoscopic hemostatic procedure (17.3 % vs. 29.2 %, p = 0.04), the need for transfusion (14.3 % vs. 37 %, p = 0.002). The median Blatchford score was 9 ± 3.5 and 12 ± 3 respectively (p < 0.001). The Rockall score was 4.22 ± 0.079 and 5.04 ± 0.131 respectively (p < 0.01).

Conclusions In this comparative study, There was a higher transfusion requirement, active bleeding rate, use of endoscopic hemostasis and mortality for in-hospital bleeding.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP287 The Additive Diagnostic Value of Cytology in Fine Needle Biopsy of Pancreatic Adenocarcinoma: A Tertiary Center Experience

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Aims endoscopic ultrasound guide fine needle biopsy (EUS-FNB) is the main diagnostic tool for pancreatic adenocarcinoma. In most instances, only histology is obtained via FNB, without sending cytological slides. The aim of our study was to assess the additive diagnostic yield of cytology performed through FNB

Methods We conducted a retrospective study of all patients with histological diagnosis of pancreatic adenocarcinoma who were diagnosed by EUS-FNB

Results Overall, 80 patients were included in the study period. The overall compatibility between cytology and histology all FNB needles was 78.2 %. Notably, cytological assessment improved the diagnostic yield for malignancy by 12.8 %. The overall kappa coefficient correlation between histology and cytology was 0.501, 95 % CI 0.361-0.641. However, the kappa correlation for suspicious of malignancy and malignant was excellent of 0.872, 95 % CI 0.733-1, suggesting that cytology is crucial when histology is inconclusive. Further analysis showed that the Acquire and Sharkcore needles outperformed the Procore needle in term of compatibility between histology and histology (kappa correlation of 0.527, 95 % CI 0.331-0.724, 0.515, 95 % CI 0.265-0.764, and 0.297, 95 % CI -0.051-0.646), respectively.

Conclusions Performing cytology specimen when using FNB improves the diagnostic yield in pancreatic adenocarcinoma.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP288 Endoscopic management and follow-up of bleeding Dieulafoy's lesions

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Aims Dieulafoy's lesion (DL), defined as a vascular abnormality of the gastrointestinal (GI) tract, is a rare cause of active, recurrent, and unexplained gastrointestinal (GI) bleeding. DL may be responsible for 1 % to 2 % of all acute GI hemorrhage and up to 6 % of non-variceal GI bleeding. Stomach, is by far the most common site of DL. We investigate retrospectively the clinical and endoscopic features and we review the effectiveness of endoscopic management of bleeding DLs. We also aimed to identify recurrence and mortality rate in our endoscopic unit.

Methods The findings from 1170 patients who had emergency endoscopy for acute gastrointestinal bleeding at our endoscopic department between January 2018 and August 2023 were retrospectively analyzed. Demographic, clinical and endoscopic data of bleeding DL were collected. Furthermore, we investigate factors of re-bleeding and mortality following endoscopy.

Results Only seven cases presented with Dieulafoy's lesion (DL). The median age of these patients was 74 years, with a male-to-female ratio of 2.5. Only anticoagulant and antiplatelet agents were significantly associated with (DLs). Gastric and duodenal locations were predominant. All patients were presented with GI bleeding as their initial symptom.

Initial hemostasis was obtained in all patients treated respectively by epinephrine injection (16 %), Argon plasma coagulation (APC) (33 %) and by combined therapy (50 %). There were no complications related to endoscopic therapy. [1–3]

Among the patients treated solely with an epinephrine injection or argon plasma coagulation (APC), two out of three (66 %) experienced early recurrence (within 72 hours). In contrast, among the 3 patients who received combined therapy, only one case experienced late recurrence during the follow-up period, (average duration of one year).

Pathological diagnosis was necessary in one case. One patient (14 %) died of hemorrhagic shock during the same hospitalization. Average length of hospital stay was 3 days.

Conclusions Thanks to the emergence of endoscopic therapies, the recurrence rate has decreased and the prognosis has highly improved. It is concluded that the endoscopic approach should be considered as the first choice to manage bleeding DLs.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP289 Predictive model for calculating risk in patients of the Colorectal Cancer Screening Program of the Tramuntana Area – Mallorca

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Aims Colorectal Cancer Screening Program was established in Mallorca in the Tramuntana area in 2015. Men and women between 50-69 years old considered to be at medium risk for CRC, are invited to participate randomly without taking into account intrinsic factors such as underlying pathologies and medication intake

Our main objective is to try to find predictive patterns that allow the prioritization of patients, within the program, with a higher risk of pathological endoscopy, taking into account other risk factors in addition to age.

Methods Retrospective study based on a sample of 718 patients from the PDPCCR of the Regional Hospital of Inca. Included data of the patients were the following:Taking AAS, Metformin , Statins or NSAIDs. Diagnosis of high blood pressure, obesity or diabetes. Gender: men and women. Age of patients. FIT quantitative values. Colonoscopy results: Findings: moderate-high risk lesions and CRC and No Findings: Normal colonoscopies or with low-risk lesions. [1–3]

Results A sample of 718 patients was included: 412 were men and 306 were women. Endoscopy findings were presented in 185 patients. We divided the total sample of 718 patients randomly into 2 groups: Group1: Working group (471 patients) Group 2: Test group, we used it for validation (247 patients). We calculated the RR and OR for each data. From the contingency tables in the work group file, we obtained the values to calculate the risk formulas and designed 2 formulas: Formula 1: using the RR and Formula 2: using OR. We validate the formulas in Group 2, when calculating each formula in the patients of this group we see: Considering 66 % of the highest values the percentage of success is 60 % with Formula 1 and 58 % with Formula 2 Considering 33 % of the highest values the percentage of success is 67 % with both Formulas

Conclusions The risk calculation model that we have described is a tool that will allow us to get an idea, with acceptable precision, of the CRC risk of patients within the program, with the strict purpose of prioritization and not of decision-making whether or not to perform the colonoscopy

This is a useful tool for us, given the recent expansion of the program to the rest of the health sectors of the Island of Mallorca, taking into account the possible increase in waiting lists that this will entail in the different hospitals, as well as the relatively recent Pandemic of SARS-CoV, which drastically reduced the endoscopic activity of several Digestive services throughout the country.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP290 The yield of colonoscopy in the evaluation of constipation: An age based analysis of outcome

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Aims Chronic constipation is a prevalent gastrointestinal complaint with increasing incidence among the aging population. This study investigates the endoscopic evaluation of constipated patients, particularly the diagnostic yield of colonoscopy, with a focus on different age groups, and aims to compare findings with average-risk controls.

Methods A retrospective analysis was conducted on 50,578 colonoscopy procedures performed over 12 years, including 5,478 constipated patients. An average-risk control group (n = 4,100) was included. Data extracted from electronic medical records covered demographics, operational aspects, and colonoscopy findings. The primary outcome measures included the diagnosis rate of colorectal cancer (CRC), polyp detection rate (PDR) and inflammatory bow-

el disease (IBD) diagnoses in constipated patients versus controls, with age-based and multivariate analyses.

Results Constipated patients exhibiting lower rates of adequate bowel preparation (92.7 % vs. 85.3 %; p < 0.001) and a lower cecal intubation rate (96.1 % vs. 85 %; P < 0.01). No significant variances between CRC and PDR were observed between constipated and controls, except for a potential signal of elevated CRC risk in constipated patients older than 80 (2.50 % vs. 0 % in controls; p = 0.07). However, multivariate analysis demonstrated that constipation did not confer an increased risk for CRC or polyp detection across all age groups. Notably, younger constipated patients exhibited a higher rate of IBD diagnoses (1.7 % vs. 0.1 % in controls; p < 0.001).

Conclusions Constipated patients had a high rate of poor bowel preparation and incomplete exams compared to average-risk patients. However, constipation did not confer an increased risk for CRC or polyps among all age groups, but were associated with higher rates of IBD in younger constipated patients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP291 Efficacy of Endoscopic Interventions versus Surgery for Pain Management in Patients with Chronic Calcific Pancreatitis

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DOI 10.1055/s-0044-1783580

Aims Chronic calcific pancreatitis (CCP) is a debilitating inflammatory conditioncharacterized by the accumulation of calcific deposits in the pancreatic tissue,leading to chronic abdominal pain and functional insufficiencies. The multifactorialorigins of pain in CCP, rooted in persistent inflammation and fibrosis, pose acomplex challenge for clinicians. To address this, various interventions, notablyendoscopic procedures and surgery, have been explored. This study aims tosystematically review and meta-analyse comparative studies assessing theefficacy of endoscopic interventions versus surgery in managing pain associatedwith CCP.

Methods This systematic review employed a comprehensive search strategy across keyelectronic databases, including PubMed, Embase, Cochrane Library, and Scopus.The inclusion criteria encompassed randomized controlled trials, cohort studies,and case-control studies comparing endoscopic interventions (sphincterotomy,pancreatic duct stenting, pancreatic stone retrieval, extracorporeal shock wavelithotripsy) to surgery for pain management in patients with CCP. Pain relief,technical success and complications were the outcomes of interest. Covidence, anonline systematic review management tool, facilitated study screening, dataextraction, and risk of bias assessment. Standard meta-analysis was employedusing the random-effects model, and heterogeneity was assessed by I2 %statistics. Effect sizes were expressed as Odds Ratio (OR) and 95 % ConfidenceIntervals (CI).

Results For the primary outcome of pain relief, a meta-analysis of four studiesdemonstrated a significant overall effect in favour of surgery (p = 0.0186), with anodds-ratio of 0.452 (95 % CI: -1.457 to -0.133). Although moderate heterogeneitywas observed (I2 = 34.39 %), the test of homogeneity was not statisticallysignificant (p = 0.2376). In the analysis of technical success, surgery showed apreference over endoscopy (p = 0.2457), with an odds-ratio of 0.403 (95 % CI: -2.443 to 0.626). Substantial heterogeneity was present (I2 = 75.59 %), and thetest of homogeneity was statistically significant (p = 0.0049). Regarding adverseevents, no significant difference was found between endoscopic interventions andsurgery (p = 0.6077), with an odds-ratio of 1.311 (95 % CI: -0.765 to 1.308).Moderate heterogeneity was observed (I2 = 50.93 %), and the test of homogeneityapproached significance (p = 0.0809).

Conclusions In conclusion, this systematic review and meta-analysis suggest that surgery maybe more effective in relieving pain in patients with CCP compared to endoscopicinterventions. Moreover, the technical success of surgery appears superior. Thefindings emphasize the need for individualized treatment approaches, consideringnot only pain relief and procedural success but also potential adverse events.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP292 ERCP in patients with surgically altered anatomy: retrospective single tertiary referral center study

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Aims ERCP is considered the first-line treatment for several biliary and pancreatic diseases and is technically demanding in patients with surgically altered anatomy (SAA) like gastrectomy or Rou-ex-Y reconstruction. Afferent loop (AL) intubation, selective biliary or pancreatic cannulation and sphincterotomy are the main issues especially for the absence of available and dedicated devices.

Methods From August 2013 to October 2023, we retrospective enrolled 30 patients with SAA who underwent ERCP: 22 men (73 %) and 8 female (27 %) [mean age of 74 ± 9 years]. Surgical reconstruction was Billroth II (21 cases\70 %), roux-en-Y gastric bypass (1 case\3 %), pancreaticoduodenectomy (4 cases\13 %) and total gastrectomy (4 cases\13 %). Native papilla and biliopancreatoenteric anastomosis were reported in 26 and 4 patients, respectively. The main indications were common bile duct stones (50 %), neoplastic obstructive jaundice (33 %), bilio-pancreatic leak (7 %) and bilio-digestive anastomotic stricture (10 %). Procedures were performed using a duodenoscope (62 %), colonoscope (12 %), gastroscope (12 %), linear echoendoscope (3 %), single (3 %)\double (7 %) balloon enteroscope.

Results Mean operative time was 56 ± 32 minutes. The successful duodenal intubation rate was 80 % (24/30) and the impossibility to reach the target biliary area was 20 %, in 3 cases for a too long Roux-en-Y limb and in 3 cases for angulated AL complied by a iatrogenic perforation using the duodenoscope (tip or side). Successful cannulation of desired biliopancreatic duct was 100 % (24/24). In particular, 2 of 24 patients presented a bilio-digestive anastomotic stricture that was treated with hydro-pneumatic balloon dilatation and multistenting technique with plastic stents. In the other 22 cases, biliary sphincterotomy were successfully performed in 95 % patients (21/22) with a unique technical failure (5 %) even rotating the sphincterotome or using the straight cannula. Major papilla hydropneumatics dilatation, stone-extraction and biliary stenting were technically executed in all the cases. We reported also a single case of gastric bypass reconstruction with access of the excluded stomach by creating a gastro-gastro anastomosis with lumen-apposing metal stent (LAMS), and a subsequent EUS-directed transgastric ERCP (EDGE) using a duodenoscope passing though the LAMS to reach the papillary area and performing biliary sphincterotomy.

Conclusions In patients with SAA, understand the different types of postoperative reconstruction is fundamental to determine the easiest way to access the AL and reach the target (native papilla or bilio-pancreatoenteric anastomosis). Choose the most appropriate endoscopic instrument, accessories and technique will allow to increase technical success and prevent operative complications [1]. After reaching the biliary target, that remain the main technical issue in SAA, the endoscopic technique present similar rate of efficacy compared to patients with normal anatomy but requiring more procedural time and higher technical skills.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP293 EndoVacuum Therapy for large intrathoracic anastomotic dehiscence and leaks: a single center series

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Aims Anastomotic dehiscence and leaks, though infrequent, represent serious complications in surgical procedures, often leading to increased morbidity and mortality. Advance in endoscopy have sought to resolve these complications with different techniques. One of them is EndoVacuum Therapy (EVT), indicated to drain collections and close perforations, having promising results with a low adverse event rate [1], despite prolonging the hospitalization and increasing costs.

Data in the literature refers to small series including various etiology of leaks and perforations. The aim of the present series is to focus on a homogeneous group with anastomotic dehiscence and leaks of large size.

Methods Patients undergoing EVT for large dehiscence and leaks of the upper GI tract treated between January 2022 and September 2023 at the Digestive Endoscopy Unit of Fondazione Policlinico Universitario A. Gemelli IRCCS in Rome were retrospectively collected. The Esosponge (B. Braun Surgical, S.A., Spain) was used in all the patients.

The inclusion criteria were:

- A dehiscence of > 50 % of the anastomosis circumference
- Leak > 20 mm
- Collection > 2.5 cm or pleural effusion

Patients who performed other surgical or endoscopic treatments were excluded. The minimum follow-up period was set at three months post-treatment.

Results Ten patients were enrolled. All patients were treated only with EVT (except one patient treated also with the Vacstent). Data about the etiology, dehiscence and leak size and type of anastomosis are summarized in Table 1. One patient died of complications unrelated to EVT. While complete drainage of the collections was achieved in all the cases, complete leak closure was observed in 80 % (7/9 patients). The median time from diagnosis to treatment was 3.1 days, with a median of 8.4 Esosponge exchanges, corresponding to 31.4 days of hospitalization, and a median of 10 Esosponge per each patient. One treatment-related adverse event (post-sponge removal bleeding) was successfully treated endoscopically without interrupting treatment.

Conclusions EndoVacuum Therapy (EVT) emerges as an effective and promising solution for large anastomotic dehiscence or post-surgical leaks, offering successful drainage and notable closure rates with minimal adverse events.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP294 Performance measures for upper gastrointestinal endoscopy: a single centre evolution in 7 years

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Aims Improving quality performance measures in upper gastrointestinal endoscopy is a high-impact objective, aimed at standardizing and enhancing our level of care. The aim of this study was to identify and assess the evolution of the quality standards in the upper gastrointestinal endoscopies performed at our centre in 3 different time frames.

Methods Retrospective cohort study including upper gastrointestinal endoscopies conducted at our centre in 3 different years (2016, 2018 and 2023). An assessment of the performance measures defined by the European Society of Gastrointestinal Endoscopy (ESGE) was conducted, and a comparative analysis was performed between 2018 and 2023, using the Chi-square method.

Results Included 3598 upper gastrointestinal endoscopies. Regarding major performance measures: adequate fasting instructions were reported in 99.9 %, documentation of procedure duration in 4.2 %, accurate photodocumentation in 56.9 %, use of standardized terminology in 38.6 % and assessment of complications after therapeutic procedures in 97.1 %. Regarding minor performance measures: inspection time in the stomach was reported in 24.8 % and MAPS guidelines biopsy protocol in 69.0 %. Use of Seattle protocol, inspection time in Barrett, Barrett patients' registry and Lugol use for oesophageal cancer were not measured due to lack of available cases. When comparing the 2018 vs. 2023 reports, there were statistically significant improvements in the documentation of procedure duration (2 % vs. 22.3 %; $p < 0.01$), use of standardized terminology duration (43.5 % vs. 94.3 %; $p < 0.01$) and application of the MAPS guidelines biopsies (69.1 % vs. 89.4 %; $p < 0.01$). On the contrary, there was a statistically significant worsening in appropriate photodocumentation (66.5 % vs. 41.7 %; $p < 0.01$) and inspection time in the stomach (27.8 % vs. 8.6 %; $p < 0.01$).

Conclusions At our centre, recurrent evaluation of performance measures allows to detect good performances like fasting and registration of complications, improvements in underperformances and loss of performance in other areas. The disclosure of performance metrics, their evolution and oversight through frequent auditing is essential to enable Gastroenterologists to enhance and keep on the track, regarding quality of upper gastrointestinal endoscopy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP295V Peroral Endoscopic Tumor Resection (POET) in gastric GIST: transverse incision, ultrashort tunneling and closure with endoscopic suture

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Abstract Text 67-year-old female with antral subepithelial lesion as a casual finding in upper GI-endoscopy. EUS confirmed 9x15mm homogeneous-hypoechoic solid lesion with dependence on submucosal layer and contact with muscularis propria (MP), compatible with subepithelial tumor (SET) as a potential GIST. EUS control showed slight growth (10x17mm). Committee decision: endoscopic resection, preferring non-exposed ESD technique (STER/POET). Material: FlushKnife-2mm, OverStitch-Suture-System. Endoscopy: I.Wide transverse incision at the oral margin. II.Short submucosal tunneling until SET was identified. III.Submucosal dissection between tumor and MP. IV.Dissection between SET and mucosa, using band-clip traction. V.Final dissection of anchoring muscular fibers to the MP. VI.Closure with an endoscopic suture. Discharge after 24h, no complications reported. Histology: low-risk epithelioid type GIST (en bloc, no tumor rupture).

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/2b1c153a-5735-460e-bb6a-919228af2d22/Uploads/13821_Video_ESGE%202024%20-%20S%20Quintana%20c%C3%B2pia.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

Endoscopy 2024; 56: S1–S503

eP296V Extraction of foreign body in ileocolic anastomosis

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DOI 10.1055/s-0044-1783585

Abstract Text A 50-year-old man with a history of Crohn's disease with ileocecal resection and ileocolonic anastomosis presented with abdominal pain and abdominal distension after eating, leukocytosis and elevated PCR. A CT scan showed intestinal obstruction secondary to the presence of two shells at the ileocecal anastomosis. An endoscopic approach was decided. The anastomosis showed signs of postsurgical recurrence with ulcers and stenosis. A seashell was visualized through it. After multiple attempts, the stenosis was crossed, and the foreign body was dislodged with a 5-arm grasping forceps and finally removed with a polyp basket. Although surgery is indicated when a sharp object does not pass through the ileocecal valve in 4-6 days, endoscopic management can first be attempted, being a safe and effective method, reducing the risk of perforation and the need for surgery. [1–4]

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/a2723665-6bce-475b-830e-593cf7dd4d5c/Uploads/13821_Extraction_of%20foreign%20body.mp4

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ePosters 4

eP297 Adult ileocolic intussusception caused by Vanek Tumor – an uncommon entity, a rare underlying cause

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Abstract Text A 23-year-old woman presented with a 1-day history of cramping abdominal pain in the right inferior quadrant. She was stable on admission with no signs of peritoneal irritation. An abdominopelvic CT showed a 12-cm ileocolic intussusception. Colonoscopy revealed an extensive ileal invagination up to hepatic flexure, with a 40 mm pedunculated polyp as the leading point. Endoscopic reduction was not possible and an ileocolic resection was performed. Histopathology revealed a Vanek tumor, an uncommon benign submucosal connective tissue tumor. Intestinal intussusception, a rare cause of bowel obstruction in adults, is typically due to a pathologic lead point. Although efficient for the management of intussusceptions in children, colonoscopy has limited therapeutic role in adults, with intussusceptions being managed mostly with surgery. [1–4]

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eP298 Correlation between Lichtiger score and endoscopic scores in Ulcerative Colitis patients in severe acute colitis

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Aims The management of severe ulcerative colitis relapses requires a good initial characterization of the lesions, and a search for signs of severity and predictive factors of severity, so as to be able to decide and advise patients on the best initial management and maintenance therapy at a distance from the severe flare-up.
Our objective is to assess the correlation between the Lichtiger score and endoscopic scores in patients with severe acute colitis.

Methods Monocentric retrospective study of severe acute colitis cases. Patients meeting the clinico-biological criteria (Truelove and Witts criteria) for severe acute colitis were included, and the admission lichtiger, Mayo endoscopy and UCEIS scores were recorded. Statistical analysis was performed using SPSS 26.0 software

Results Between September 2021 and May 2023, 123 cases were analyzed, 39 of which were classified as severe acute colitis. Average age was 41.7 years, sex ratio M/F was 1.2. Biologically, 10 patients had anemia, 9 patients had hyperleukocytosis, 21 patients had increased CRP.
In our series, 18 patients had an admission lichtiger score of less than 11 (46 %). Endoscopically, the endoscopic Mayo score was 3 for 35 patients, with a score of 2 for the remaining 4. The UCEIS score was 5-6 for 14 patients, and 7-8 for the remaining 25 cases. Endoscopic signs of severity were present in 10 cases.
We found a correlation between the endoscopic Mayo score and the UCEIS score (Spearman = 0.403, p = 0.015).
We found no correlation between the Lichtiger score and the UCEIS score (Spearman = 0.238, p = 0.162), nor between the Lichtiger score and the endoscopic Mayo score (spearman = 0.004, p = 0.981).

Conclusions The Lichtiger score is highly useful in the management of UC patients, thanks to its reproducibility, and is a good predictor of complications in severe acute colitis. That said, it underestimates initial lesions and is therefore not a major tool in the initial management of such conditions. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP299 Upper gastroinestinal bleeding secondary to pseudoaneurysm after endoscopic sleeve gastroplasty: a case report

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Abstract Text Introduction: endoscopic sleeve gastroplasty (ESG) is a safe procedure with a low rate of gastrointestinal bleeding. We present the case of an uncommon cause of bleeding after ESG.

Case: A 28 year-old male was admitted to emergency department due to hematemesis. The only personal history was the performance of an ESG. During the urgente gastroscopy we did not identify any lesions related to bleeding. After 24 hours the patient starts with hematemesis, repeating the endoscopy without any finding. Due to the abscence of endoscopic lessions, and abdominal CT in performed, describing a pseudoaneurysm of the splenic artery close to an endoscopic suture point. Due to the imaging finding it is performed an arteriography with embolization of the pseudoaneurysm. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP300 Application of Natural Orifice Transluminal Endoscopic Surgery with Endograsp System for Stomach Perforation Model: Ex-vivo porcine study

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Aims Gastrointestinal tract perforation has become more common due to the rise of endoscopy, with a high mortality rate. Numerous closure methods have been devised for natural orifice transluminal endoscopic surgery, including Through-the-Scope Clip (TTSC) and Overstitch system, offering promise but also limitations. The current study aims to compare the feasibility and effectiveness of mucosal-submucosal suturing using a newly designed suture device with TTSC and manual suturing in an ex-vivo stomach wall perforation model.

Methods A total of 30 perforation models of porcine stomach were used in this study. 10 stomachs were used for each closure technique, TTSCs, full-thickness hand sutures, and the proposed ESSD. TTSCs and ESSD techniques were performed using a one-channel endoscope, and the hand sutures were performed from outside of the model. Air leakage pressure and procedure time were measured to compare the closure strength and effectiveness of each technique.

Results The mean air leakage pressure was 73.6 ± 21.6, 118.5 ± 41.7, and 127.4 ± 30.2 mmHg for TTSCs, ESSD, and full-thickness hand sutures, respectively. The stomachs closed by ESSD exhibited significantly higher air leakage pressure than TTSC-treated stomachs($P = 0.012$), and no significant difference with full-thickness hand sutures($P = 0.812$). The mean procedure time was 1,334.0 ± 777.1, 1,134.2 ± 567.7, and 468.2 ± 123.1 s for TTSCs, ESSD, full-thickness hand sutures, respectively. The stomachs closed by ESSD exhibited significantly longer procedure time than full-thickness hand sutures($P = 0.014$), and no significant difference with TTSCs($P = 0.882$).

Conclusions With comparable closure strength to full-thickness hand sutures and a procedure time akin to that of TTSCs, ESSD proves highly effective in mucosal-submucosal suturing

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP301 Initial results of screening program in Mongolia where burdening high gastric cancer – Multi center study

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DOI 10.1055/s-0044-1783590

Aims Background: Mongolia is the leading country by the incidence and mortality rate of gastric. In 2022 national cancer screening program for upper gastrointestinal neoplasia was initiated therefore we conducted the multi-center study for determining the gastric cancer among Mongolian population.

Methods Methods: The cross sectional study was performed to screen the precancerous lesion (LGD, Atypia) and cancerous lesion (HGD, adenocarcinoma, signet cell carcinoma etc.) assessed among the people who underwent gastric endoscopy in 28 endoscopy centers in Mongolia during from May of 2022 to September of 2022. (Endoscopic centers of Ulaanbaatar city's 9 district and 21 provinces). The primary outcomes of this study was to define detection rate (proportion of positive cases among individuals who underwent endoscopic screening) and to determine the characteristics of cancer type including its precursor disease.

Results Results: Totally 34,581 people were screened from May 2022 to September 2022. Among them n = 262 (0.8 %) patients diagnosed with gastric cancer based on endoscopic examination. The proportion of early stage gastric cancer was n = 135 (51.5 %) of all screened cancer cases.

Conclusions Conclusion: The initiation of Mongolian national gastric cancer screening program was useful to detect gastric cancer in early stage which further can reduce mortality rate of gastric cancer due to its treatment possibilities. Therefore, national screening program should be continuous. [1–24]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP302V Overtube-assisted endoscopic ultrasound (EUS) for the diagnosis of Schwannoma in the ascending colon

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DOI 10.1055/s-0044-1783591

Abstract Text A 68-year-old male patient was admitted to undergo colonoscopy for colorectal cancer screening. The examination revealed a subepithelial lesion in the ascending colon of hardened consistency and 25 mm in diameter. EUS was performed with the aid of an overtube and showed a solid, well-defined, oval, hypoechoic and heterogeneous lesion that was infiltrated in the muscle layer. The lesion was punctured with an FNB Topgain 22G needle. The cytopathological analysis revealed a spindle-cell mesenchymal tumor of low histological grade suggestive of a gastrointestinal stromal tumor (GIST). However, the immunohistochemical profile showed positivity for S-100 and Ki-67 of 2 %. The diagnosis was spindle-cell mesenchymal tumor with neural differentiation suggestive of Schwannoma. The patient was submitted to resection by videolaparoscopy and was discharged two days later without intercurrences [1–2].

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/ffad1130-2466-4ced-bde6-cedd83ded0fc/Uploads/13821_Case_report%20esge.MP4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP303 Efficacy of Pre-oxygenation and High-Flow Nasal Oxygen during ERCP in High-risk patients with hypoxemia: A Randomized Controlled Trial

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DOI 10.1055/s-0044-1783592

Aims Endoscopic retrograde cholangiopancreatography (ERCP), a procedure requiring deep sedation, poses an elevated risk of hypoxemia, particularly in high-risk patients. Pre-oxygenation and high-flow nasal oxygen (HFNO) have demonstrated effectiveness in improving oxygenation.
This study aimed to assess the efficacy of pre-oxygenation and HFNO during ERCP in high-risk patients with hypoxemia, comparing it with pre-oxygenation and standard oxygen.

Methods In a single-center prospective trial, high-risk patients with hypoxemia undergoing ERCP were randomly assigned to pre-oxygenation and HFNO (Group A) or pre-oxygenation and standard oxygen (group B). High-risk factors included ASA > 3, BMI > 30kg/m^2 and obstructive sleep apnea.

Results In 60 patients, hypoxemia (SpO2 < 90 %) occurred in 2 (6.6 %) patients for group A and 8 (26.6 %) patients for group B (p = 0.036). The lowest mean oxygen saturation was significantly higher in group A than in group B (95.3 ± 5.0 vs 92.0 ± 6.1, p = 0.032). Prolonged desaturation (> 1min) and the requirement

of minor airway manoeuvers such as chin lift and jaw thrust occurred only in groups B (0 vs 4 (13.3 %, p = 0.111 and 0 vs 4 (13.3 %), p = 0.111).

Conclusions In patients at risk of hypoxemia undergoing ERCP, the use of pre-oxygenation and HFNO reduced the incidence of hypoxemia and resulted in a higher mean lowest oxygen saturation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP304 A Comprehensive Analysis of the Adverse Events and Device Failures Associated with Pancreatic Duct Stents: An FDA's MAUDE Database Study

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Aims Pancreatic duct stents (PDS) are widely used for the prevention of post-ERCP pancreatitis and for pancreatic endotherapy in chronic pancreatitis patients. Several commercially available PDS are commonly utilized [1, 2]. However, there is a paucity of data regarding the adverse events associated with PDS placement. This study aims to investigate the reported adverse events and device failures related to PDS, utilizing the Manufacturer and User Facility Device Experience (MAUDE) database maintained by the U.S. Food and Drug Administration (FDA).

Methods Post-marketing surveillance data from January 2010 to May 2023 were extracted from the FDA's MAUDE database to analyze the outcomes associated with PDS. Reports pertaining to the use of commonly used PDS including Advanix (Boston Scientfic), Geenan (Cook endoscopy), and Zimmon (Cook endoscopy) pancreatic stents were analyzed. The primary outcomes of interest were device problems and patient-related adverse events. Statistical analysis was performed using Microsoft Excel 2010, with calculation of pooled numbers and percentages for each device and patient adverse event.

Results There were 572 device-related adverse events and 625 patient-related adverse events for the pancreatic stents between January 2013 and November 15, 2023. Most device complications were due to material deformation (n = 67; 11.7 %), followed by device migration or expulsion (n = 58; 10.1 %) and device fracture/break (n = 54; 9. 4 %). Most device failures resulted in no patietn harm (n = 400, 68.7 %). The most common patient-reported adverse events were inflammation (n = 24; 3.8 %), including inflammation associated with conditions such as acute cholecystitis, pancreatitis, cholangitis, and peritonitis. This was followed by device embedded in tissue (n = 22; 3.52 %) and occlusion/obstruction (n = 22; 3.5 %).

Conclusions Most reported device-related issues were attributed to device or usage problems, and the majority of device failures did not result in harm to patients. Information from this study can be used in improving pancreatic duct stent designs for future iterations.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP305 Endoscopic ultrasound characteristics of solid component as a determinant for plastic versus metal stent drainage in walled-off pancreatic necrosis with significant debris: A pilot study

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Aims Endoscopic ultrasonography (EUS) guided drainage for walled-off pancreatic necrosis (WOPN) with significant solid debris with plastic stents vs metal stent is conflicting. We aimed to study EUS characteristics of solid debris to determine the choice of stent, need for endoscopic necrosectomy and compared effectiveness of drainage with this strategy.

Methods A total of 31 symptomatic WOPN patients with solid debris > 30 % were included in the study. All underwent EUS for characterisation of the solid debris into two groups according to distribution pattern (evenly distributed particulate vs irregular shaped reticulate), echogenecity (hypo-echoic vs hyper-echoic with or without shadowing), uniformity (homogenous vs heterogenous) & completeness of distant wall (present vs absent). Group A included those with former group of characteristics (minimum three out of four) and represented softer debris while Group B included later characteristics (either irregular shaped reticulate pattern alone or two out of the other three) and suggested tough debris. Group A underwent drainage with two double pigtail plastic stents while group B underwent drainage with either bi-flanged fully covered self-expanding metallic stent or lumen apposing metal stent. Primary outcome was treatment success defined as symptom relief with resolution of WOPN at 3 months. Secondary outcome was need for repeat procedures or direct endoscopic necrosectomy. Treatment failure was considered if there was any change in modality of drainage or death.

Results Technical success was seen in 100 % patients in both groups. Clinical success with symptoms resolution was seen in 85.71 % (12/14) in group A and 94.11 % (16/17) in group B, P-0.43. Radiological resolution was seen in 92.8 % (13/14) in group A and 88.2 % (15/17) in group B, P-0.66. Treatment failure was seen in 2/14 (14 %) patients in group A with both requiring upgradation to metal stent and 1/17 (5.8 %) in group B requiring surgical necrosectomy, P-0.43. Direct endoscopic necrosectomy (DEN) was needed in 13/17 patients (76.4 %) in group B (mean session 1.33) and 2/14 (14 %) in group A (mean session 1), P-0.005. Three patients (17.6 %) in group B required lavage by nasocystic drain along with DEN. There was no procedure related major adverse events or death.

Conclusions EUS characteristic of solid component in WOPN with significant debris determines the need for future necrosectomy and hence the choice of stent for drainage.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP306 Severe Esophageal Involvement in Bullous Pemphigoid

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DOI 10.1055/s-0044-1783595

Abstract Text A 72-year old gentlemen with recently diagnosed bullous pemphigoid was referred by dermatology for new onset odynophagia. The patient underwent an esophagogastroduodenoscopy which showed severe oesophageal ulceration in the mid to disal esophagus. Esophageal biopsies revealed linear deposits of IgG and C3 along the basement membrane suggestive of bullous involvement. He was started on a tapering dose of 30mg prednisolone, which resulted in significant improvement of his odynophagia. Bullous pemphigoid and mucous membrane pemphigoid, are a spectrum of uncommon autoimmune dermatologic conditions. Pemphigoid disorders involves circulating antibodies that are directed against the basement membrane of the squamous epithelium, with subsequent activation of complement and the inflammatory cascade.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP307 Anticoagulants is a risk factor for delayed bleeding after colorectal endoscopic submucosal dissection: A HASID multicenter study

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DOI 10.1055/s-0044-1783596

Aims Delayed bleeding is an important adverse event after colorectal endoscopic submucosal dissection (ESD). However, there is debate as to whether anticoagulants are a risk factor for delayed bleeding after colorectal ESD.

Methods We retrospectively analyzed 1,708 patients who undergoing colorectal ESD from January 2015 to December 2020 in five academic medical centers. We aimed to identify risk factors for delayed bleeding in patients after colonic ESD and, in particular, to evaluate the effect of anticoagulants.

Results Delayed bleeding occurred in 40 of 1,708 (2.3 %) patients. The risk factors of delayed bleeding were antithrombotic agents (Odds ratio [OR], 6.155; 95 % confidence intervals [CI], 3.201-11.825; p < 0.001), antiplatelet agents (OR, 4.609; 95 % CI, 2.200-9.658; p < 0.001), anticoagulants (OR, 8.286; 95 % CI, 2.934-23.402; p < 0.001) and tumor location in the rectum (OR, 2.055; 95 % CI, 1.085-3.897; p = 0.027). In the analysis excluding patients taking antiplatelet agents, the delayed bleeding rate was also higher in patients taking anticoagulants (1.6 % no antithrombotic agent vs 12.5 % taking anticoagulants, p < 0.001). There was no difference in delayed bleeding rate (4.2 % direct oral anticoagulants vs 25.0 % warfarin, p = 0.138) and clinical outcomes according to the type of anticoagulants

Conclusions Anticoagulants use was a risk factor for delayed bleeding after colonic ESD, and there was no difference in the risk of delayed bleeding based on the type of anticoagulants. Caution should be exercised when performing colorectal ESDs in patients receiving anticoagulants.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP308 The enigma of asymptomatic walled off pancreatic necrosis : Natural history and predictors of intervention in a prospective observational study

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Aims Most acute pancreatitis cases are mild, but 20 % can develop complications such as extensive necrosis, significantly increasing morbidity and mortality. The revised Atlanta classification introduced the term "walled-off pancreatic necrosis" (WOPN) for a collection with a defined wall, containing liquefied necrosis and tissue fragments. Symptomatic WOPN warrants intervention—endoscopic, radiological, or surgical drainage. Managing asymptomatic WOPN lacks consensus. We aimed to study the natural history of asymptomatic WOPN and the predictors of intervention in this subgroup of patients

Methods This is a prospective observational single centre study that included 54 consecutive asymptomatic patients with WOPN from a period of September 2021 to October 2023. Asymptomatic patients were those who were able to tolerate oral nutrition and had only mild, occasional abdominal pain or discomfort without any infection, pressure symptoms, and GI bleeding. The clinical findings and laboratory investigations were noted. The details of imaging findings especially size of WOPN in longest dimension as well as its location were also noted. These patients were followed up monthly for the initial 6 months then every three monthly. On follow up, a detailed clinical assessment was done. MRI abdomen was done at the end of 6 month and 12 month follow up. The size of WOPN in its longest dimension was measured and recorded. In the event of symptoms/complications, imaging and interventions were done as indicated. The patients were followed up till spontaneous clinical recovery with resolution of WON, need for intervention, mortality and/or till 1 year from recruitment.

Results 54 patients (mean age 37.6 ± 16 years) with asymptomatic WOPN were included. The size ranged from 1.4 to 18 cm (mean size 7.97 ± 4.4 cm). The site of the WOPN was head, body, tail and uncinate process in 15 (27.7 %), 24 (44.4 %), 9 (16.6 %) and 4 (7.4 %) respectively. 22/54 (40.7 %) did not have any complications during conservative management and observation for a period of 1 year. 32/54 (59.2 %) patients required intervention in the form of either endoscopic, percutaneous and/or surgical drainage. The indications for intervention were infection (n = 12), refractory pain (n = 10), obstructive jaundice (n = 2), and intracystic haemorrhage (n = 2). Spontaneous rupture into GI tract was seen in 6 (11.1 %) patients. There was one mortality secondary to massive bleeding from splenic artery pseudoaneurysm. Size of WOPN greater than 6 cm was a significant predictor of intervention (p = 0.0017). A WOPN located in the head (p = 0.06) and alcoholic etiology (p = 0.12) of pancreatitis was also associated with increased rates of intervention although the results were not statistically significant

Conclusions Many asymptomatic WOPN patients needed intervention, but a substantial portion could be conservatively managed. Infection was the primary reason for intervention, with larger size, head location, and alcoholic pancreatitis as predictive factors.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP309 Always look twice: missed early gastric cancer treated in same-session ESD

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DOI 10.1055/s-0044-1783598

Abstract Text A patient with prior endoscopy showing atrophic pangastritis and a well defined, 1 cm, Paris IIa elevated lesion on the greater curvature of the stomach, with lacy vessels(VS +) and absent glandular pattern, was referred for ESD. Biopsies confirmed high-grade dysplasia and H.Pylori-negative chronic gastritis with atrophy and metaplasia foci. At the examination preceding resection, a second, morphologically similar, 7 mm antral lesion was detected in the proximity of the initial lesion. Both lesions were resected en-bloc by ESD and hybrid ESD-snare resection, respectively. Pathology confirmed curative R0 resection of mutifocal gastric adenocarcinoma with submucosal invasion (pT1b and, pT1a, respectively, both with eCura 0). High-risk patients should be thoroughly examined for synchronous gastric lesions amenable to same-session endoscopic treatment.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP310V Water exchange double balloon enteroscopy on a patient intolerant to carbon dioxide enteroscopy

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DOI 10.1055/s-0044-1783599

Abstract Text In this case, we present a 77-year-old woman with unexplained iron deficiency anemia who was taking aspirin. Despite previous attempts using CO2 during retrograde DBE, the ileum could not be reached due to the patient's intolerance. After discussing with the patient, it was decided to reattempt DBE using the water exchange technique. With this method, the terminal ileum was successfully intubated, and further insertion to the mid ileum was achieved under conscious sedation. Examination upon withdrawal of DBE revealed non-specific erosions and easy contact bleeding in the distal ileum, which were consistent with aspirin-induced enteropathy. The haemostasis was achieved with two through the scope clips. [1]

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/ea9e3de7-d102-4dd5-a8e8-3951f658d11c/Uploads/13821_Produce1980V3.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP311 Quality of Colonic Preparations in the Real-World: Comparing of three agents, results of a large cohort

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DOI 10.1055/s-0044-1783600

Aims Different bowel preparation formulas are used in colonic preparation before colonoscopy. The study aimed to investigate colonoscopy quality in three different colonoscopy preparation agents.

Methods Multi-center, large cohort, retrospective study included colonoscopies performed between 2016 and 2021 with data regarding the preparation agent and the quality of preparation. Multi-center study, data collected from seven Assuta endoscopy departments. Three preparation agents (polyethylene glycol (Moviprep), Sodium picosulfate with Magnesium citrate (picosalax), and Macrogols (Meroken). The quality grading of excellent, good, fair and poor preparation was used.

Results We included 206,964 patients who underwent colonoscopy, 13,117 patients used Moviprep, 184,181 used picosalax, and 9666 used Meroken. 38 % of the Moviprep patients were 61 or older, compared to 37.2 % and 65.2 for picosalax and meroken, $p < 0.001$. Excellent colonic preparation was more common among patient prepared with moviprep compared to picosalax and meroken (12.3 % vs 11 % vs 5 %, $p < 0.001$), while good preparation was more common among patients prepared with picosalax with 64.3 % compared to 58.2 % and 61.5 %. people aged 60 and younger had higher rates of excellent and good colonic preparation in all agents, while patients aged 61 and older had higher rates of fair and poor preparation grading.

Conclusions Differences in colonic preparation were found in different preparation agents; age 61 years and older were found to be associated with low quality of preparation; these should be considered in prescribing colonic preparation agents.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP312 Endoscopic retrograde appendicitis therapy (ERAT) for treating periappendiceal abscess: A multicentral experience from China

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DOI 10.1055/s-0044-1783601

Aims The aim of this study was to evaluate the safety and efficacy of endoscopic retrograde appendicitis therapy (ERAT) for treating periappendiceal abscess.

Methods Twenty-four consecutive periappendiceal abscess patients who underwent ERAT between May 2017 and May 2022 at three tertiary care Hospitals in China were included in this study. The diagnosis of periappendiceal abscess was confirmed by direct colonoscopy imaging and computed tomography (CT) and/or ultrasonography (US). The baseline characteristics of all the patients, procedure success rate, procedure time, postoperative length of hospital stay, complications, and recurrence rate were recorded.

Results The success rate of ERAT was 95.8 % (intubation failed in one patient due to the closure/blockage of the appendiceal opening). The mean procedure time was 33.79 minutes with standard deviation (SD) of 17.1 min. The mean length of postoperative hospital stay was 5.4 (SD 2.6) days. Time to relief of abdominal pain after the ERAT was 28.2 ± 19.4 hours. No complication observed in any of the patient. Antibiotics were routinely administered for 3 days after the ERAT. Recurrence occurred in 8.7 % of the patents at mean 26.9 (SD 10) months of follow-up.

Conclusions Preliminary evidence suggests that ERAT could be a safe and effective alternative option for treating periappendiceal abscess, making it a valuable addition to the armamentarium of interventional endoscopy. The practice of ERAT currently remains predominantly limited to the Eastern world. As the treatment paradigm of appendicitis evolves, it is crucial that novel techniques such as ERAT be evaluated at a global scale alongside the evolving standard of care therapies.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP313 Colorectal Cancer and Gender, Similarities and Disparities

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DOI 10.1055/s-0044-1783602

Aims Sex-related differences were reported in different fields, including gastroenterology**.** Differences could be related to the biological body structure, nutrition habits, and social aspects. We aimed to investigate the general characteristic, comorbidities, and all cause-mortality of colorectal cancer (CRC) among females and males in a large population.

Methods Data were retrieved according to ICD-10 colorectal cancer codes retrospectively, including the time period of years 1999 and 2021. Data regarding demographics, age at diagnosis, comorbidities, and mortality were collected. Data were collected using the MdClone platform from the largest Health Maintenance Organization, "Clalit" in Israel. The risk factors and comorbidities were compared between females and males.

Results 61,679 CRC patients were subdivided into 30,456 (49.4 %) males and 31,223 (50.6 %) females; 2510 (8.2 %) males were of Arab ethnicity compared to 2381 (7.6 %) females. A higher rate of smoking and a lower rate of family history of CRC were found among males (41.3 % vs 19.5 %, 5.5 % vs 6.5 %, $p < 0.001$, respectively).

Higher rates of ischemic heart disease, chronic lung disease, chronic kidney disease, and diabetes mellitus among male CRC patients, while lower rates of obesity, iron deficiency anemia, fatty liver, and depression were found.

The all-cause mortality was higher among males, with 61.6 % compared to 58.3 % females, $p < 0.001$.

Conclusions Differences between males and females regarding colorectal cancer should be considered for the prevention, screening, and diagnosis of colorectal cancer.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP314 Flexible endoscopic gallbladder preserving polypectomy vs. laparoscopic cholecystectomy for gallbladder polyps: A propensity matched analysis

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Aims Gallbladder polyps are lesions that protrude from the wall of the gallbladder to the lumen. The widespread use of abdominal imaging techniques has led to a dramatic increase in the detection rate of Gallbladder polyps. Gallbladder polyps are broadly divided into nonneoplastic and neoplastic polyps, with cholesterol polyps being the most common nonneoplastic polyps. The

laparoscopic cholecystectomy (LC) remains the gold standard treatment for gallbladder polyps. Herein, we introduce a novel option for the treatment of gallbladder polyps called pure NOTES gallbladder preserving polypectomy(G-PP). The aim of this study was to compare the safety and effectiveness of pure NOTES GPP versus LC for gallbladder polyps.

Methods We used the database of inpatients at the First Affiliated Hospital of Zhengzhou University to retrospectively compare the GPP and LC for the treatment of gallbladder polyps by propensity score matching (1:1). We reviewed 322 patients with gallbladder polyps, of whom 38 patients met the matching criteria (NOTES: 19 and LC: 19).

Results The technical success rate in both groups was 100 %. The median procedure time was 155.4 ± 63.1 minutes in NOTES group vs. 66.9 ± 50.5 minutes in LC ($p < 0.001$). No postoperative pain was observed in NOTES group while 9 (47.4 %) patients experienced incision related post-operative pain in LC group. The median duration of fasting was less with LC 2.4 ± 1.6 days' vs 2.0 ± 0.7 days with NOTES. The median overall hospital stay for NOTES was 5.6 ± 4.0 days (IQRs, 3-6) vs. 5.3 ± 2.4 days with LC ($P = .092$). During the 23 months of median follow-up period, 52.6 % patients in the LC group were found to have post-cholecystectomy syndrome include fat intolerance in 6 cases (33.3 %), right upper abdominal pain in 5 cases (27.8 %), and changes in stool habits in 4 cases (22.2 %). There were no symptoms observed in NOTES group. No recurrence of gallbladder polyps observed in NOTES group.

Conclusions Conclusion: Both NOTES and LC are feasible and effective options for gallbladder polyps. However, NOTES advantages over LC includes gallbladder preservation which has important function, quick recovery, no incision on the abdominal wall, and fewer long-term complications. Although LC has the advantages of short operation time, but the post-cholecystectomy syndrome as a long term complication of LC largely remain unstudied

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP315 Efficacy and safety of sodium alginate solution for endoscopic mucosal or submucosal resection: A prospective, multicenter, randomized, triple-blinded, parallel-group, phase 3 study

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DOI 10.1055/s-0044-1783604

Aims The safety and efficacy of solutions for submucosal injection are critical for endoscopic resection of gastric adenomas or early gastric cancers. Although several injectable solutions have been introduced for endoscopic resection, they have some limitations. We aimed to compare the efficacy of the new sodium alginate-based solution with that of normal saline (NS, 0.9 % sodium chloride).

Methods In this randomized triple-blind study, 70 patients were initially enrolled for endoscopic mucosal resection or endoscopic submucosal dissection (ESD). The main outcomes included the need for additional injections, completion of en bloc resection, and occurrence of adverse events.

Results Each group finally comprised 34 patients. Complete en bloc resections were achieved in all patients ($P = 1.000$). The sodium alginate solution group had more peri-neoplasm tissue fibrosis ($P = 0.056$) and needed fewer additional injections for lesions larger than 15 mm ($P = 0.037$), located in the distal part ($P = 0.007$) and during ESD procedures ($P = 0.001$), whereas the adverse event rate was comparable in both groups.

Conclusions Sodium alginate solution outperformed NS in reducing the need for additional injections during en bloc resection, particularly in larger lesions located in the distal part (where most lesions were found) during ESD procedures, without increasing the incidence of serious adverse events. Sodium alginate solution is a promising submucosal injectable solution in real-world clinical settings. [1–6]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP316 Endoscopic retrograde appendicitis therapy (ERAT) : A good alternative choice for stump appendicitis: Largest retrospective single center experience

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Aims The aim of this study was to determine the baseline characteristics, diagnosis, and management of stump appendicitis (SA), and evaluate and compare the feasibility, safety and efficacy of treating SA with surgical approaches and endoscopic retrograde appendicitis therapy (ERAT).

Methods A total of 34 patients (26 surgical, 8 ERAT) between 2011 to 2023 with stump appendicitis were retrospectively reviewed at our center after their initial open or laparoscopic appendectomies (OA or LA). All patients' diagnosis were confirmed with certainty through final surgical or endoscopic results. Demographics, peri-hospitalization variables, treating regimens and post-discharge follow-up outcomes were analyzed.

Results Among the 34 patients, 8 underwent ERAT and 26 underwent surgery. There were no significant differences in demographic data, onset time, symptoms, signs and laboratory tests between the two groups ($p > 0.1$). ERAT group had significantly lower operation time, hospital stay, postoperative hospitalization duration, days of disability, hospitalization expenses, and postoperative white blood cell level than the surgical treatment group ($p < 0.01$), and the required fasting time was significantly shortened ($p < 0.05$). Complication rate in surgical group was 5/26, and 0/8 in ERAT group. The duration of antibiotics use in the ERAT treatment group were lower than those in the surgical treatment group ($p = 0.05$).

Conclusions Stump appendicitis is an entity need to be suspected if a patient claims appendicitis-like symptoms with a prior history of an appendectomy. Unlike acute appendicitis, it has much lower emergence rate of symptoms, combining the lack of awareness of this entity, its diagnosis is often delayed, leading to serious complications. An abdominal CT combined with ultrasonography can help establishing an early diagnosis and reduce the risk of complications. Standard ERAT or even rough decompression of the appendiceal lumen by unclogging and irrigation relieves the symptoms right after the intervention, significantly reduces days of disability, hospitalization duration and costs. Moreover, it can distinguish and exclude the diagnosis of stump appendicitis, intes-

tinal tumors or inflammatory bowel disease (IBD), and can effectively manage the former. Performing a colonoscope for patients with appendicitis-like symptoms regardless of a prior history of appendectomy can help rule out or manage certain diseases and could, to some extent, avoid the trauma of exploratory laparotomy. [1–44]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP317 Contaminated Duodenoscopes in ERCP: Assessing Risk and Culture Sensitivity

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Aims Contaminated duodenoscopes used in Endoscopic Retrograde Cholangiopancreatography (ERCP) can transmit pathogens to patients [1]. Although duodenoscope cultures are the primary method to detect contamination, their sensitivity remains unknown [2]. Therefore, unintended use of contaminated duodenoscopes is possible. This study aims to estimate the prevalence of contaminated duodenoscope usage and determine the sensitivity of duodenoscope cultures.

Methods Seven years of microbiological surveillance data on duodenoscopes were analyzed alongside usage records to assess patient exposure to duodenoscopes contaminated with microorganisms of gut or oral origin (MGO). We identified duodenoscopes that were repeatedly contaminated with matching microorganisms at the species-level within a one-year period. We compared susceptibility results per bacterial species cultured and performed molecular typing to determine relatedness. Persistent contamination was defined as one duodenoscope being repeatedly contaminated with the same microorganism. Simultaneous contamination of multiple duodenoscopes with identical microorganisms was categorized as a cluster. We categorized intermediate cultures as 'false-negatives' when an identical bacterium, initially identified in a culture, disappeared in subsequent tests but reappeared afterward. Sensitivity was calculated based on the count of true positive cultures and false negative cultures.

Results A total of 556 duodenoscope cultures from 15 duodenoscopes were included, with 185 cultures (33.3 %) contaminated with MGO. The total duodenoscope usages amounted to 5226. We identified one period of persistent contamination and two clusters. Between 16.1 % and 23.8 % of ERCPs during the study period involved contaminated duodenoscopes. Duodenoscope culture sensitivity ranged from 75.1 % to 98.9 %.

Conclusions Despite appropriately implemented microbiological surveillance and quarantine measures for MGO-positivity, there remains a significant risk of patient exposure to contaminated duodenoscopes. The lower the microbiological surveillance frequency, the higher the number of exposed patients, consequently elevating the risk of duodenoscope-associated infections. Given that duodenoscope cultures lack 100 % sensitivity, lifting quarantine only after multiple negative cultures should be considered.

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eP318 Colon cancer among different ethnic groups, population-based large cohort of two ethnic groups

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Aims We aimed to investigate the general characteristic, comorbidities, and all cause-mortality of CRC among the Arab population compared to the Jewish population.

Methods CRC patients, according to ICD-10 codes were retrospectively included between the years 1999 and 2021. Data regarding demographics, age at diagnosis, comorbidities, and mortality were collected. Data were retrieved using the MdClone platform from the largest Health Maintenance Organization, "Clalit" in Israel. The risk factors and comorbidities were compared between young patients (≤ 50 years) compared to the other patients.

Results 61,679 CRC patients were included in the present study, 4891 (7.9 %) of Arab ethnicity and 56,788 of Jewish ethnicity. Age at diagnosis is significantly younger Among Arab (62.5 ± 14 vs 70.8 ± 13 years, $p < 0.001$), with a higher males proportion of 51.3 % vs 49.2 %, p = 0,005). 21.3 % of the Arab CRC patients were diagnosed at age 50 or younger, compared to 8 % of Jewish patients, $p < 0.001$. Significant differences were found in family history of CRC and smoking (3.6 % vs 6.2 %, 34.9 % vs 30 %, respectively. Higher rates of diabetes mellitus and obesity were found among Arab patients (37.6 % vs 27.5 %, and 36 % vs 21.4 %, $p < 0.001$), while lower rates of ischemic heart disease, hypertension and chronic kidney disease (9.7 % vs 12.6 %, 45.6 % vs 53.7 % and 8.1 % vs 10.3 %, $p < 0.001$, respectively.

All-cause mortality was lower among patients of Arab ethnicity (49.6 % vs 60.8 %, $p < 0.001$) with younger age at death (70.9 ± 14.5 vs 79.8 ± 11.8, $p < 0.001$).

Conclusions Disparities in risk factors, comorbidities, and all-cause mortality were found in different ethnic groups; special consideration is needed for specific ethnicities and minorities according to the colon cancer characteristics.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP319 Underwater endoscopic mucosal resection for gastric tumours

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Aims A submucosal injection before resection of gastric adenomas or polyps could facilitate resection, reduce thermal damage to deeper tissue and decrease the risk of perforation. As an alternative to submucosal injection, underwater endoscopic mucosal resection (UEMR) is widely used for colorectal and duodenal tumours. UEMR for gastric tumours has not been well reported. We therefore report on the efficacy and safety of gastric UEMR

Methods The UEMR was performed in patients who visited our hospital between January 2018 and October 2023 with a diagnosis of a gastric tumour of less than 20 mm in size. Follow-up duodenoscopy was scheduled after 3 months. The primary outcome was the R0 resection rate. Secondary outcomes were procedure time, en bloc resection rate, adenoma recurrence at 3 months after the resection and complications. Adverse events were categorised as immediate bleeding, post-procedural bleeding, desaturation during the procedure, post-polypectomy syndrome, lung atelectasis and perforation.

Results Eighty-one patients underwent UEMR. The age of the patients ranged from 47 to 82 years, with an average of 65 years. Among the patients, 33 (40.7 %) patients had hypertension, while 19 (23.5 %) patients had diabetes mellitus. One patient had liver cirrhosis and another patient had chronic kidney disease. Thirteen patients were taking medications, including aspirin (5 [6.2 %]), antiplatelet (6 [7.4 %]), and warfarin (2 [2.5 %]), which may affect bleeding after the procedure. The tumour morphology was classified according to the Paris classification, with 12 (14.8 %) being classified as I, 34 (42.0 %) as IIa, 8 (9.9 %) as IIb, 25 (30.9 %) as IIc, and 2 (2.5 %) as III. The most common location was the antrum, accounting for 51 (63.0 %) cases, and the most frequent circumferential location of the tumours was the lesser curvature, accounting for 33 (40.7 %) cases. En bloc resection was achieved in 100 % of gastric tumour cases, and the R0 resection rate was 93.8 %, with 2 (2.5 %) patients having positive lateral margins. The median procedure time was 278.10 seconds. Immediate bleeding occurred in 30 (37.0 %) patients, all of whom were effectively haemostatically controlled, resulting in no delayed bleeding. Of the 51 patients (63.0 %) who underwent follow-up duodenoscopy, two had a recurrent lesion (2/51, 3.9 %) at the EMR site. One patient underwent Endoscopic Submucosal Dissection for the recurrent lesion.

Conclusions UEMR is safe, has a high R0 resection rate for small to intermediate sized gastric tumours, and can be performed quickly. Further large-scale randomized controlled trials are warranted to confirm these results.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP320 Factors associated with the diagnostic yield of endoscopic ultrasound (EUS)-guided tissue sampling for the cyto-histological diagnosis of solid pancreatic tumors: analysis of a large prospective registry

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DOI 10.1055/s-0044-1783609

Aims EUS-guided sampling is considered the gold standard for the cyto-histological diagnosis of solid pancreatic tumors (SPT). The development of new needles over the last few years has improved the diagnostic accuracy of EUS sampling. Our study **aimed** to evaluate factors associated with the diagnostic yield of EUS sampling for the cyto-histological diagnosis of SPT in clinical practice.

Methods Retrospective analysis of a large prospective registry of SPT evaluated by EUS from January 2008 to December 2021. Patients who underwent EUS sampling (FNA or FNB) of the SPT were identified and included in the study. EUS was performed with linear Pentax echoendoscopes and Hitachi systems. Tissue acquisition was performed with standard cytology needles and core needles [Procore, Franseen, and Fork-Tip]. Samples were collected in a cytological solution (Cytolit) or smeared and processed for cytological or histological evaluation. Diagnostic yield was analyzed using the histopathological evaluation of the surgical specimens, and the clinical and radiological long-term follow-up in non-operated patients, as gold standard. Results are shown as mean ± standard deviation or percentages as appropriate. Multivariate logistic regression was used to identify the factors significantly and independently associated with the diagnostic yield of EUS sampling, and the results are expressed as OR and 95 % CI. Needle type, rapid on-site evaluation (ROSE), number of needle passes, and size of the lesion sampled were considered independent variables The correct diagnosis reached by EUS-sampling (yes or no) compared to the gold standard was used as the dependent variable.

Results 1072 patients were included (mean age 67.6 years, range 17-92, 597 male). The size of SPT was 34.3 ± 14.7 mm. 615 (57.4 %) tumors were located in the head of the pancreas, 341 (31.8 %) in the body, 83 (7.7 %) in the tail, and 33 (3.1 %) in the uncinate process. Cytology needles were used in 542 patients (50.6 %) and core needles in 530 (49.4 %). The mean number of needle passes was 1.7 ± 0.8 in both groups. ROSE was done in 224 (20.9 %) cases. Global sensitivity, specificity, and overall accuracy for malignancy were 86.1 %, 100 %, and 88.1 %, respectively. Sensitivity and overall accuracy were higher with core needles compared with cytology needles (89.10 % vs 83.10 %, and 90.40 % vs 85.80 %, respectively, $p < 0.05$). In the multivariate analysis, the tumor size (OR 1.04 [1.01-1.04], $p = 0.001$), ROSE (OR 6.56 [2.81-15.32], $p < 0.001$), and the use of core-needles (OR 1.89 [1.28-2.78], $p = 0.001$), but not number of needle passes, were factors associated with a correct diagnosis.

Conclusions EUS-guided sampling is an accurate technique for the cyto-histological diagnosis of solid pancreatic tumors. A higher diagnostic yield is obtained with core needles and with ROSE if cytology needles are used.

Conflicts of interest Julio Iglesias-Garcia Advisor: Boston, Fujifilm, Pentax, Mediglobe

eP321V Use of endocytoscopy in the evaluation of esophageal squamous cell carcinoma

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DOI 10.1055/s-0044-1783610

Abstract Text Endoscopic treatment is a potentially curative alternative for superficial esophageal squamous cell carcinoma (SESCC). Endocytoscopy is a novel ultra-high magnification technique enabling high-quality in-vivo assessment of mucosal lesions. We present a patient with a SESCC which extended 50-80 % circumferentially, margins were poorly-defined and vascular pattern was B2 primarily and B3 in suspected areas. A thorough examination of the margins with endocytoscopy and double staining (crystal violet & methylene blue) prior to the submucosal dissection allowed the expansion of a suspicious lateral margin. The final diagnostic was an pT1b sm2 lesion with negative lateral and vertical margins. We suggest that endocytoscopy might be very useful in the delimitation of large SESCC prior to endoscopic submucosal dissection. [1–2]

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/d4d21975-d3e2-4e2e-910f-85b62f68c959/Uploads/13821_Endocitoscopia_ESGE.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP322V Endoscopic approach of a de novo perivaterian abscess

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Abstract Text A 53-year-old patient presented with persistent fever up to 38.5 C and deterioration of her clinical state. She had mild leucocytosis, negative initial blood and urine cultures and no response to empiric antibiotic treatment. CT and MRI showed a thickening of the D1-D2 and cystic elements of around 2 cm between the head of the pancreas and the duodenal wall. We performed an upper GI endoscopy followed by an CE- endoscopic ultrasound (CE-EUS). All the findings were consistent with perivaterian abscess confirmed with presence of pus in the cytology after FNA. Due to incomplete drainage, we forwarded an 0.035 inch guidewire into the cyst under EUS guidance. The needle knife was used to form a fistula between the duodenal lumen and the abscess. Pus was seen to flow endoscopically. The patient showed rapid improvement of her clinical state with normal findings in next radiological imaging.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/1f8a6b7e-5771-4efc-aecd-41023fe9e1a8/Uploads/13821_esge_perivaterian_F.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP323 Endoscopic ultrasound (EUS)-guided detective flow imaging (dfi) to evaluate pancreatic microvascularization in patients with chronic pancreatitis: a prospective, single-centre, observational study

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DOI 10.1055/s-0044-1783612

Aims The evaluation of pancreatic microvascularization by EUS-guided detective flow imaging (DFI) could be useful in the diagnosis of chronic pancreatitis (CP) by detecting pancreatic inflammation. Our study aimed to evaluate the findings of EUS-DFI in patients with clinically suspected CP according to EUS criteria of the disease.

Methods Prospective, single-centre, observational study. Patients undergoing EUS with advanced imaging for clinically suspected CP. Procedures were performed with a linear echoendoscope (Fujifilm 740UT) attached to the ultra-

sound system Arietta 850. EUS criteria of CP according to Rosemont classification were evaluated. EUS-DFI findings were qualitatively classified into four grades (grade 0- absence of microvascularization; grade 1- reticular pattern with minimal microvascularization; grade 2- reticular pattern with moderate microvascularization; grade 3- reticular pattern with marked microvascularization. The correlation between EUS-DFI grades and the different groups of the Rosemont classification was analyzed by chi-squared test.

Results 190 patients were included (mean age 53 years, range 21-85, 102 males). 32 patients (16.8 %) presented a normal pancreas at EUS, 51 (26.9 %) indeterminate findings of CP, 99 (52.1 %) suggestive changes of CP, and 8 (4.2 %) consistent with CP. An EUS-DFI grade 0 (n = 30) was only seen in the normal pancreas. An EUS-DFI grade 1 (n = 57) was associated with indeterminate findings of CP in 85.9 % of the cases. A grade 2 (n = 91) was associated with suggestive findings of CP in 97.8 % of the cases, whereas a grade 3 (n = 12) was seen in patients with suggestive (n = 4) and consistent (n = 8) findings of CP. ($p < 0.001$). EUS-DFI is significantly different between groups of Rosemont classification ($p < 0.001$)

Conclusions The evaluation of pancreatic microvascularization by EUS-DFI can be a useful tool for the evaluation of the inflammatory process in CP. A higher degree of EUS-DFI could indicate a higher degree of pancreatic inflammation. Further studies are needed to evaluate the accuracy of this new technology for the diagnosis and evaluation of the inflammatory activity of CP.

Conflicts of interest Julio Iglesias-Garcia Advisor: Boston, Fujifilm, Pentax, Mediglobe

eP324 The outpatient management in gastrointestinal bleeding reduces the re-bleeding during the time: a cohort observational study

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DOI 10.1055/s-0044-1783613

Aims The aim of the study is to verify if the outpatient management of patients with gastrointestinal bleeding from vascular lesions reduces the re-bleeding rate

Methods This is a retrospective cohort single center study, including patients observed between May 2022 and September 2023 in our practice dedicated to gastrointestinal bleeding.

We enrolled consecutive patients with gastrointestinal bleeding or iron deficiency anemia affected by vascular lesions.

Results Overall, we observed 602 patients with gastrointestinal bleeding, 79 were included in the study. The mean age was 73.8 years (SD ± 10,8), 46 % were female. The source of bleeding was angiodysplasia in 63 % of patients, followed by GAVE 9 % (Gastric Antral Vascular Ectasia), erosions 9 %, ulcers 6.5 %, congestion 3 %, blue rubber bleb 2.5 %, diverticula 2.5 %, Dieulafoy's lesion 1 %, not defined in 2.5 %.

After the introduction in the dedicated practice, the re-bleeding decrease from 1.3 episodes to 0.2 episodes, $p < 0.001$. The access to the emergency department was reduced from 0.8 to 0.1, $p < 0.001$. The number of elective hospitalization was reduced from 0.5 to 0.2, $p = 0.004$. Transfusion was needed in 45 patients (57 %) after the outpatient management VS 6 patients(8 %) before, $p < 0.001$.

Conclusions The outpatient management of gastrointestinal bleeding provides a gain in terms of re-bleeding and costs (lower number of hospitalization and transfusion). To our knowledge, this is the first published study that demonstrates that the outpatients' management of patients with gastrointestinal bleeding reduces the re-bleeding rate.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP325 Visual impression of biliary anastomotic strictures with per-oral cholangioscopy predicts therapeutic outcome in liver transplant recipients

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DOI 10.1055/s-0044-1783614

Aims Biliary anastomotic strictures (BAS) after liver transplantation (LT) are the most common biliary adverse events in LT recipients. They are mainly managed with endoscopic retrograde cholangiopancreatography (ERCP) [1]. A prior pilot study from our group showed that per-oral cholangioscopy (POCS) identifies two distinct visual stricture patterns: type A (scarring) and type B (erythema with sloughing and/or ulceration) [2]. This study analyzed these two stricture patterns and compared treatment outcomes.

Methods Prospective single-center study at Hospital Clinic of Barcelona of LT recipients with BAS that underwent POCS over a 7-year period (2016-2022).

Results During the study period, POCS was performed in 45 patients with suspected post-LT biliary strictures. The main indications for POCS were evaluation of complex biliary strictures including selective guidewire placement across tight strictures (95.6 %) and therapy of common bile duct stones above a BAS (4.4 %). POCS successfully visualized the biliary tract in 93.3 % of patients (42/45). In 38 LT recipients the BAS was successfully visualized, whereas in the 4 remaining POCS confirmed that there was no stenosis. Of these, 24 (63.2 %) were categorized as type A strictures and 14 (36.8 %) as type B. Baseline characteristics (age, sex, etiology, time from LT to POCS and therapy) according to the type of stricture were similar. During follow-up (median follow-up 28 months), stricture resolution was achieved with endoscopic treatment in 83 % of type A strictures and in 50 % of type B strictures ($p = 0.029$). Also, the need for alternative treatments such as percutaneous interventions or surgery was significantly higher in those with type B strictures (50 %) compared to type A strictures (12.5 %) ($p = 0.011$). The cumulative probability of stricture resolution was significantly higher in type A compared to type B ($p = 0.045$). Adverse events were all mild and occurred in 6/45 patients (13.3 %): 3 cholangitis, 2 pancreatitis, 1 controlled bleeding.

Conclusions Visual impression of BAS in LT recipients with POCS demonstrates that type A BAS is associated with a higher resolution compared to type B BAS. These findings confirm that this classification helps to predict outcomes of therapy in LT recipients with BAS. Further validation studies are needed.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP326 Case Report: A Rare Cause of Gastric Mass Presenting With An Upper Gastrointestinal Bleed

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DOI 10.1055/s-0044-1783615

Abstract Text A 54yo male with known relapsed multiple myeloma(MM) presented with melaena. Gastroscopy demonstrated 25mm gastric mid-body mass with stromal tumour appearances. CT scan showed ~3 cm focus of gastric greater curve thickening and skeletal lytic lesions in keeping with the known myeloma. He was discussed four times in the local MDT before conclusive diagnosis was reached. Initial biopsy requests did not provide the medical history and were simply reported as 'dysplastic'. When further information was

eventually provided the histology was reported as a gastric deposit of myeloma with plasmablastic features. MM with extramedullary plasmacytoma is extremely rare, accounting for < 5 % of MM [1]. Extramedullary disease affecting the GI system is even more unusual and accounts for < 1 % of all MM [2]. We must consider the wider clinical context and provide as much clinical information as possible at all stages of diagnosis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP327 Diagnosis of chronic pancreatitis (CP) by shear wave elastography (SWE) of the pancreas. A prospective, single-center, observational study

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DOI 10.1055/s-0044-1783616

Aims Advanced imaging techniques associated with EUS, such as strain elastography (SE), have proven to be useful in the diagnosis of CP. Recently, the development of SWE has opened a new alternative for the evaluation of pancreatic fibrosis. Our study aimed to evaluate the accuracy of SWE for the evaluation of patients with clinical suspicion of CP.

Methods Prospective study of patients undergoing EUS with advanced imaging for clinically suspected CP. Procedures were performed with a linear echoendoscope (Fujifilm 740UT) attached to the ultrasound system Arietta 850. EUS Rosemont criteria of CP were evaluated. A significant area corresponding to the pancreatic body was selected for SWE. Five SWE measurements were done and the mean wave velocity (Vs) and pressure (Kpas) were calculated. SE was performed at the same location, and the strain histogram (SH) and the strain ratio (SR) were quantified. Data are shown as mean (95 % CI) and percentage and were analyzed by ANOVA and linear regression.

Results 180 patients were included (mean age 53 years, range 21-85, 98 males). 32 patients (17.8 %) presented a normal pancreas, 44 (24.5 %) indeterminate findings for CP, 96 (53.3 %) suggestive of CP, and 8 (4.4 %) consistent with CP. The Vs was 1.60 (1.45-1.75) in normal pancreas, 1.99 (1.82-2.16) in indeterminate for CP, 2.74 (2.64-2.85) in suggestive for CP, and 3.50 (2.98-4.03) in consistent with CP ($p < 0.0001$). Pressure (KPas) was 8.29 (6.54-10.04) in normal pancreas, 13.08 (10.73-15.42) in indeterminate for CP, 23.71 (21.93-25.49) in suggestive for CP and 36.48 (25.88-47.08) in consistent with CP ($p = 0.071$). The number of EUS criteria for CP correlated with Vs ($r = 0.6974$, $p < 0.001$), and Kpas ($r = 0.651$, $p < 0.001$). SR correlated with Vs ($R = 0.680$, $p < 0.001$) and Kpas ($R = 0.645$, $p < 0.001$). SH correlated with Vs (0.639, $p < 0.001$) and Kpas (0.584, $p < 0.001$).

SWE (Vs < 1.7 and Kpas > 8.9) showed a sensitivity of 92.6 % and specificity of 62.5 % for the diagnosis of CP (ROC curve 0.900).

Conclusions EUS-SWE (Vs and Kpas) allows the evaluation of the degree of pancreatic fibrosis in the context of CP. EUS-SWE results correlate significantly with EUS-SE.

Conflicts of interest Julio Iglesias-Garcia Advisor: Boston, Fujifilm, Pentax, Mediglobe

eP328 Design and applications of a simulator based on the morphology of an actual stomach for training in endoscopic therapy

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DOI 10.1055/s-0044-1783617

Aims At present, many different types of endoscopic trainers are not constructed according to the actual gastric morphology. Therefore, we have developed a new simulator for endoscopic therapy technology, evaluated its efficacy and authenticity in endoscopic operation, and explored the learning curve of novice endoscopic physicians and the training effect.

Methods According to the medical image data of actual gastric transverse plane, a relatively standard gastric morphological structure was made by using computer modeling and 3D printing technology. Different endoscopic procedures were simulated by adding different training modules in the structure. First, 30 endoscopists with different levels of experience were recruited for the test to evaluate the effectiveness of the trainer, then 20 novice endoscopists were selected for the learning curve test. After that, 38 novice endoscopists were divided into group A (new simulator) and group B (traditional non-simulated stomach model) for simulated training to observe the technical progress of clinical gastroscopy.

Results Endoscopists with different levels of experience in each group believe that the training device has high authenticity, substantial convenience, low physical and mental load, and high interest. The higher the level of endoscopists needs the less testing time. The effect of training for novice endoscopists reached the platform stage after 13 times (about 10 hours of training). The control experiment found that group A scored higher than group B in terms of familiarity with endoscopic instruments, understanding of gastric structure, and self-confidence in clinical examination, while there was no significant difference between the two groups in terms of understanding of working principles and proficiency in the operating process.

Conclusions The new simulator can truly simulate some endoscopic treatment techniques and distinguish the differences of endoscopists' techniques. Meanwhile, training in the simulator can significantly shorten the cycle of skill improvement of novice endoscopists.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP329 Risk factors associated with re-bleeding in outpatients' management of gastrointestinal bleeding: a cohort observational study

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DOI 10.1055/s-0044-1783618

Aims The aim of the study is to evaluate the risk factors associated with re-bleeding in patients with iron deficiency anemia or gastrointestinal bleeding from vascular lesions followed up in a dedicated practice.

Methods This is a retrospective cohort single center study, including patients observed between May 2022 and September 2023 in our practice dedicated to gastrointestinal bleeding.

We enrolled consecutive patients with gastrointestinal bleeding or iron deficiency anemia affected by vascular lesions.

Results Overall, we observed 602 patients with gastrointestinal bleeding, 79 were included in the study. The mean age was 73.8 years (SD ± 10,8), 46 % were female and the most frequent source of bleeding was angiodysplasia, 50 patients (63 %).

After the introduction in the dedicated practice, the re-bleeding decrease from 1.3 episodes to 0.2 episodes, p < 0.001. The dedicated practice provided a protective independent factor for re-bleeding with OR 0.09 (CI 95 % 0.04-0.23), p < 0.0001. In the logistic regression we found that independent risk factors associated with re-bleeding were: needing of endoscopic treatment OR 2.7 (CI 0.96 7.71) p = 0.05; small bowel inflammatory lesions OR 5.6 (CI 1.31 24.4) p = 0.02; previous gastrointestinal bleeding OR 1.13 (CI 0.98 1.3) p = 0.07. Regarding the antithrombotic therapy, the edoxaban seemed to be worse for gastrointestinal bleeding, OR 2.7 (CI .34 1.3) p = 0.34, compared with rivaroxaban, OR 0.1 (CI 0.00 1.13) p = 0.06. The ROC area performance was 0.84.

Conclusions The follow up in a dedicated practice is the most important independent factor that reduce the re-bleeding in patients with gastrointestinal bleeding from vascular lesions.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP330 The integrated care pathway (or clinical pathway) in gastrointestinal bleeding: preliminary single center experience

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DOI 10.1055/s-0044-1783619

Aims We aimed to evaluate the in-hospital mortality in our institute after the pathway.

Methods This is a retrospective cohort study, we evaluated patients with acute gastrointestinal bleeding for any causes admitted in tertiary care center between January 2022 and September 2022. Data were extracted from electronic health records using ICD-9 algorithm. A descriptive analysis of the data was performed, with a calculation of the mean, median, proportions, standard deviation and 95 % confidence limits depending on data type.

Results We enrolled 209 patients with gastrointestinal bleeding, 117 (59 %) were male, the mean age was 69 years (SD ± 17). 150 (71.8 %) were admitted for the emergency department, 33 (15.8 %) developed a bleeding during in hospital stay, 25 (12.4 %) were transferred from another institute.

Between the codified source of bleeding, we found that the 52.8 % of patients had upper gastrointestinal bleeding, the 20.5 % of patients had a mid-gut bleeding and the 27 % of patients had a lower source of bleeding. Overall the in-hospital mortality was observed in 7 patients (3.3 %) and the mean length of the stay was 14 days (CI 95 % 12.2;16.4). [1]

Conclusions In our cohort study, we observed a changing in the epidemiology of gastrointestinal bleeding; in particular, we reported a higher presence of small bowel source of bleeding than previous reported. The in-hospital mortality is lower than expected 3.3 % VS 7.6 % of referral literature [2].

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP331 Antithrombotic therapy depicts a distinct small bowel bleeding clinical pattern: a retrospective cohort study

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Aims The study aims to evaluate the diagnostic yield of small bowel capsule endoscopy in patients while on antithrombotic therapy for suspected small bowel bleeding.

Methods This is a single center, retrospective, observational study conducted from January 2015 to March 2019. We enrolled consecutive patients with suspected small bowel bleeding or iron deficiency anemia undergoing SBCE after bidirectional negative endoscopy. Positive findings were defined according to the P0-P2 classification reported by Saurin et al [1]. Bleeding severity was defined according to the "International Society of Thrombosis and Haemostasis" (ISTH) criteria.

We considered in anticoagulant therapy: direct oral anticoagulant (DOAC), vitamin K antagonist (VKA), injective anticoagulant (Low-molecular-weight heparin, unfractionated heparin, fondaparinux). We considered in antiplatelet therapy: aspirin, clopidogrel, ticagrelor.

A descriptive analysis of the data was performed, with a calculation of the mean, median, proportions, standard deviation and 95 % confidence limits depending on data type.

Results We analyzed and collected data from 369 patients, 95 while on antithrombotic therapy: 40 with DOACs, 35 with VKAs, and 20 with injective anticoagulants. The mean age was, overall, 66.4 years (SD ± 14.9), 60.1 years (SD ± 16.2) in the control group, 72.4 (SD ± 8.8) in the antiplatelet group, 73.3 years (SD ± 11.49) in the anticoagulant group and 71.3 years (SD ± 12.2) in the anticoagulant + antiplatelet group. In table 1, there are reported patients' demographic and clinical characteristics. In the DOAC group we found a statistically significant higher number of patients presenting with active bleeding and without lesion identification (8 patients 20.0 % Vs 11 patients 6.0 % in the control group, 3 patients 8.6 % in AVK group and 3 patients 15.0 % in the injective anticoagulant group). The angioectasia is the most frequent lesion detected in patients with antiplatelet + anticoagulant therapy (7 patients 46.7 % VS 21 patients 20.2 % in the control group, 8 patients 21.1 % in the antiplatelet group and 3 patients 8.8 % in the anticoagulant alone group; p = 0.027).

Conclusions Our results show that patients with antithrombotic therapy are, usually, elderly and with more comorbidities than the control group. Furthermore, in this specific group, the hemoglobin level was lower and the need for transfusion was higher. Angioectasia is the most frequent positive findings in patients with both antiplatelet and anticoagulant therapy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP332 Performance of the modified Kyoto classification for prediction of Helicobacter pylori infection

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Aims The modified Kyoto classification is a score allowing a standardized and quantitative description of the different elementary gastric lesions. This score is validated for the prediction of Helicobacter pylori (Hp) current infection. The aim of this study was to evaluate the performance of the modified Kyoto classification for predicting Hp infection during endoscopy.

Methods This is a prospective, observational and monocentric study. All consecutive patients aged between 18 and 65 years, who had gastroscopy from June to November 2023, were included. All patients gave a free and informed consent.

Excluded criteria were patients with a history of Hp eradication, patients with previous gastrointestinal surgery, severe heart, liver or kidney failure, patients who have taken antibiotics during the past 4 weeks, proton pump inhibitors during the past 2 weeks and patients taking anticoagulants or antiplatelet aggregators.

In eligible patients, gastroscopy was carried out according to the usual procedure: the gastric mucosa was explored under white light and the different items were recorded.

The score varies from -4 to 14 points. The predictive accuracy of current Hp infection using the Kyoto classification was calculated with a total score ≥ 3. Hp status was determined by histopathologic analysis of gastric biopsies.

The evaluation of the performance of the classification was established by calculating sensitivity (Se), specificity (Sp), positive predictive value (PPV) and negative predictive value (NPV).

Results Two hundred patients were included, comprising 108 women and 92 men with an average age of 39 years. The main indications for gastroscopy were epigastralgia (68 %) and anemia (25.5 %).

Atrophy was found in 88 patients (44 %), hypertrophy of the gastric folds in 44 patients (22 %), nodularity in 73 patients (36.5 %), mild diffuse redness in 37.5 % of cases, severe diffuse redness in 56 % of cases, sticky mucus in 23 % of cases, spotty redness in 9.5 % of cases. Regular arrangement of collecting venules (RAC) and fundic gland polyp were found in 59 % and 2.5 % of cases, respectively.

The mean score was 4.14 ± 2.83 [-4, 11]. A total of 147 (73.5 %) patients had a modified Kyoto score ≥ 3. The histopathological examination revealed 143 Hp-positive patients (71.5 %) and 57 Hp-negative patients (28.5 %).

The sensitivity and specificity of the modified Kyoto classification were 83 % and 50 %, respectively, with a PPV of 80 %, a NPV of 54 % and an accuracy of 74 %.

Conclusions The modified Kyoto classification can predict patients infected with Helicobacter pylori with a good sensitivity. However, its low specificity limits its practical impact in a high-prevalence country for Hp and does not avoid the need for gastric biopsies.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP333 Complicated Barrett's Lesions and Subsequent Endoscopic Eradication Therapy: A Single Centre Irish Experience

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Aims Endoscopic eradication therapy (EET), combining endoscopic mucosal resection (EMR)/submucosal dissection (ESD) with ablation, is the preferred treatment for complex Barrett's lesions, aiding diagnosis, staging and potential eradication of mucosal dysplasia/neoplasia. ESD offers lateral margin data but has associated procedure risks. EMR demonstrates comparable EET efficacy to ESD with an increased safety profile. We aim to review deep margin clearance post EMR for Barrett's related lesions and subsequent histological clearance post EET.

Methods Retrospective review (January 2019 – October 2023) included Barrett's patients undergoing initial EMR for visible lesions. The study assessed EMR method, histology, margin clearance, nature of ablation, EET clearance and complications. Patients with prior EMR/EET were excluded.

Results 398 patients were identified with Barrett's diagnosis via "Follow up: dysplasia" filter on 'Endoraad' endoscopic software. 63 patients (58 male; 5 female; mean age: 67) were eligible. 100 % had dysplastic/neoplastic histology (4.7 % low-grade dysplasia (LGD); 44.4 % high-grade dysplasia (HGD); 49.2 % intramucosal carcinoma: pT1a: 42.8 %; pT1b: 6.3 %). 93.7 % of EMR achieved negative deep margin clearance. 6.3 % had positive deep margins (4 patients: HGD: 1; pT1a: 2; pT1b: 1). 65.1 % of patients underwent endoscopy post-EET. EET-clearance was 73.2 %. Median time from EMR to EET clearance was 18 months. Procedure-related complication rate was 23.8 % (Stricture: 9.5 %; Acute bleeding: 7.9 %; 3.2 % ablation ulceration; 1.6 % mucosal tear). No statistical association was identified between ablation voltage and stricture formation/multi-piece EMR and bleeding.

Conclusions EMR with subsequent ablation provides high deep margin clearance rates, leading to complete Barrett's eradication for the majority of patients in < 20 months from index treatment.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP334 Glasgow-Blatchford score predicts findings on video capsule endoscopy in patients admitted with obscure overt gastrointestinal bleeding. A retrospective analysis

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Aims Several studies have identified individual risk factors predictive of positive findings on video capsule endoscopy (VCE) in patients with suspected small bowel bleeding (SSBB). Glasgow-Blachford Score (GBS) is a recognised tool which identifies patients with upper gastrointestinal bleeding who need hospital admission and intervention. Its utility in predicting findings in VCE in patients with SSBB remains unclear. The aim was to assess the use of GBS in predicting findings on VCE among patients admitted with overt SSBB.

Methods Retrospective analysis of all patients admitted from January 2019 to June 2022. We collected demographics, clinical, biochemical, capsule findings and outcome data with a 1 year follow-up. GBS was calculated on admission and at 24 hours. Median and interquartile range were used to describe quantitative variables. Univariate analysis used simple logistic regression as well as chi-squared test and Mann-Whitney test for qualitative and quantitative potential predictors, respectively. The optimal cut-off point maximized the Youden index. A multivariate logistic regression model was fitted with the most significant predictors and restricting the number of events divided by 10 to avoid model overfitting. R software was used and a significance level of 0.05 was applied.

Results 79 patients, 57(72.2 %) males, median age 71 years were included. 37 (46.8 %) were on antiplatelets and 33 (41.8 %) on anticoagulants. For 55 patients (69.6 %) it was the first episode of bleeding and 58 (73.4 %) had melaena. Mean initial systolic blood pressure = 124.3 mmHg (SD 21.8). Median initial Haemoglobin = 8 mg/dL and 62 (78.5 %) patients required transfusion. Median initial GBS and GBS(24h) were 10 in both cases and 6 patients (7.6 %) had a GBS = < 1. Median time to capsule was 9 days (interquartile range 7 to 30). 58 (73 %) patients underwent VCE as an inpatient, 49 (62 %) had significant findings and 22 out of 49 (44.9 %) with VCE findings underwent intervention. In all 22 (27.8 %) patients rebled and 14 (17.7 %) died during the follow-up period. Recurrent bleeding (p = 0.020), higher Initial GBS (p = 0.024) and GBS(24h) (p = 0.025), shorter time to capsule (p = 0.038) and inpatient status on VCE (p = 0.001) were all predictive of positive findings on univariate analysis. The optimal cut-off point of Initial GBS for significant findings on VCE was 4 (AUC 0.625, Sensitivity 98 %, Specificity 30 %). Multivariable regression analysis showed inpatient status (log-odds 4.76; CI 2.43 – 8.41; p = 0.001), shorter time to capsule (log-odds 0.02; CI 0.01 – 0.04; p = 0.018) and higher initial GBS (log-odds 0.20; CI 0.06 – 0.36; p = 0.009) were predictive factors for positive findings on VCE, with an AUC of 0.802. [1–5]

Conclusions GBS was useful in predicting findings on VCE in this cohort of patients with obscure over bleeding. Its use to identify patients who could benefit from early VCE should be considered.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP335 Diagnostic performance of endoscopic ultrasound-guided tissue acquisition by EUS-FNB for solid pancreatic lesion: a Tunisian retrospective study

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Aims Endoscopic ultrasound (EUS) has been established as the reference for the histologic diagnosis of solid pancreatic lesions, as it is efficient and safe. It has been performed for several years in our country, but there are currently few data evaluating its performance. The aim of our study was to evaluate the performance of fine needle biopsy (FNB) in adults undergoing EUS –guided sampling of solid pancreatic lesions.

Methods We conducted a retrospective study from 2018 to 2023 including all patients who were subjected to EUS- FNB sampling for solid pancreatic lesions suspicious of malignancy. Patients with pancreatic cysts and known chronic pancreatitis were excluded. The diagnosis of malignancy was defined by the presence of cancer cells on biopsy or on surgical specimen or by a follow-up featuring a tumour progression or the onset of metastases. Technical failure was defined as the presence of insufficient and/or normal pancreatic tissue material assessed by the pathologist.

Results A total of 224 patients were included in the final analysis: 136 men and 88 women with a sex ratio M/F of 1.54. The mean age was 62 years. The mean size of the mass was 34.79 mm, mainly located in the head (70.5 %), body (12.5 %), uncinate process (9.4 %), neck (5.8 %) and tail (1.3 %). Vascular invasion was found in 16.1 % while close vascular contact was retrieved in 54 % of cases. The approach was mostly transduodenal (90.6 %) and transgastric (9.4 %). A 22 gauge needle was used in 99.1 % of cases. Technical success was noted in 96 % of cases and was significantly correlated to the tumor size p = 0.01. The diagnosis of histological malignancy was made in 94.6 % of cases. Immunohistochemistry staining was performed in 14.3 % of patients. Pancreatic adenocarcinoma was the most common tumor histologic type (93.34 %) with ductal (97.9 %) and acinar cell (2.1 %) as most frequent subtypes. A signet ring cell and mucinous components were found in 19.1 and 5 % of cases respectively. The remaining cases listed six pancreatic neuroendocrine tumors, two mucinous cystadenocarcinoma and six pancreatic metastases from another primary site: 3 metastases of clear cell renal carcinoma, one metastasis of colon adenocarcinoma, one metastasis of breast carcinoma, and one metastasis of small cell lung cancer. Benign lesions were recognised in 2 cases depicting mass-forming chronic pancreatitis. EUS guided -FNB showed a high performance for malignant diagnosis adequacy (Se: 95.08 %, VPP: 100 %, accuracy: 95.08 %). Second biopsy set was performed in only 2 patients, with a cumulated sensitivity and accuracy of 97.5 %. Only one case of major bleeding was reported.

Conclusions EUS with FNB biopsy is a safe procedure featuring high rates of technical success and accuracy for the diagnosis of pancreatic solid mass. Nevertheless, its use remains limited in developing countries due to its high cost and the limited availability.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP336 Gallbladder-preserving polypectomy by pure natural orifice transluminal endoscopic surgery: results of an 8-year retrospective study

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Aims Evaluate the safety, effectiveness, and recurrence rates of natural orifice transluminal endoscopic surgery (NOTES) polypectomy over an 8-year retrospective study.

Methods A retrospective analysis was conducted on data from 74 consecutive patients diagnosed with gallbladder polypoid lesions (GPLs), who underwent transrectal (82.4 %) or transgastric (17.6 %) NOTES polypectomy in two tertiary hospitals between January 2015 and May 2023.

Results Of the 74 enrolled patients, the average BMI was 24.56 ± 3.42 kg/m², with 60.8 % males and 39.2 % females. Among these, 42 patients presented with symptoms, while 32 were asymptomatic. The mean operation duration was 134.78 ± 49.66 minutes. Diagnosis revealed 37 patients solely with gallbladder polyps and 37 with both polyps and gallstones. Pathological analysis indicated 81.1 % cholesterol polyps, 10.8 % inflammatory gallbladder polyps, and only 5.4 % adenomatous polyps. During follow-up, the recurrence rates averaged 1.80 % in the first year, 8.60 % in the second, and 18.10 % in the third year.

Conclusions The findings highlight NOTES polypectomy as a promising and potentially effective procedure capable of preserving gallbladder function while removing polyps. Given the predominance of cholesterol polyps, NOTES polypectomy emerges as a viable alternative treatment strategy for GPLs.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP337 Clinical outcomes of endoscopic treatment in acute cholangitis: comparison between Tokyo guidelines 2018 and ASGE 2021

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Aims The optimal endoscopic approach during acute cholangitis (AC) remains controversial. There is currently no agreement on the timing of biliary drainage, nor on the endoscopic technique: Tokyo guidelines (TG18) recommend to perform only biliary drainage in several cases, because of the risk of bleeding after sphincterotomy (EST) in this setting; on the other hand ASGE guideline suggests to remove the cause of cholangitis (i.e. biliary stones) too in a single procedure (combined strategy), regardless of degree of severity. This study describes a case series of AC and compares findings with the reference guidelines.

Methods We included patients who underwent endoscopic retrograde cholangiopancreatography (ERCP) for AC in a single high volume center between december 2017 and december 2022. AC were stratified by severity according to TG18 criteria. Patients who had previously undergone EST were excluded.

Results One hundred seventy-one patients with AC were included (n = 83 male), 89.5 % with a lithiasic etiology, 10.5 % with malignancy. Forty-five of them (26 %) presented mild AC, 90 (53 %) moderate AC and 36 (21 %) severe AC, with a mortality rate of 0 %, 1.2 % and 19.4 % respectively. Ninety-three patients (54.5 %) underwent ERCP within 72 hours of diagnosis. Stratifying patients by cholangitis severity, there was no association between 30-day mortality and the timing of ERCP (within 24 hours, between 24 and 48 hours, between 48 and 72 hours after diagnosis or later), even in severe AC. Since EST was performed in most patients (94 %), bleeding occurred only after EST and

in 39 of them (24 %). Patients with concomitant cholecystitis (n = 33) or other infections (n = 16) had a higher bleeding rate (39 % and 62.5 % respectively) compared to those without any other infections (20 %) ($p < 0.05$). Conversely we didn't find any correlation between the bleeding risk and etiology or severity of AC, stones number and dimension, INR value, concomitant acute pancreatitis and periampullary diverticulum. Patients who took anticoagulant drugs did not show an increas bleeding risk, even in those few cases where the drugs hadn't been discontinued correctly. Among patients with lithiasic cholangitis, bleeding occurred in 28 % of cases that underwent biliary decompression, EST and stone removal in a single procedure; it was managed endoscopically in the same session in most patient, whereas only in 5 % of cases a subsequent endoscopic hemostatic intervention needed. [1–3]

Conclusions Our results suggest that biliary drainage within 72 hours could be safe in AC, regardless of the degree of severity. Moreover, they seem to deny that an high severity degree increases the risk of bleeding post-EST, that is instead associated only to cholecystitis or other concomitant infections. In lithiasic AC, stone removal in a single procedure leads to a higher risk of bleeding, that however could be managed with hemostatic concomitant manouvers. That's why the combined strategy, as recommended by ASGE guideline, seems to be safe, as well as cost-effective.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP338 The proteomic analysis of gastric cancer cell line exosome for searching potential biomarkers

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Aims Exosome is small extracellular vesicles released from cancer cells, known to contain various materials associated with cancer development and progression. This study aimed to identify useful biomarkers for gastric cancer using proteomics analysis of gastric cancer exosomes.

Methods : Exosomes from both normal gastric cell line (Hs738st/Int) and gastric cancer cell lines (AGS, NCL-N87) underwent proteomic analysis. Gastric cancer-specific proteins were identified using LC-MS/MS analysis. The validation of final selected target proteins involved western blot analysis of exosome obtained from healthy control (n = 10) and patient with gastric cancer (n = 36).

Results A comparison between exosomes from normal gastric cell line and gastric cancer cell lines highlighted two proteins (VTN, LAMA-3) as potential biomarkers for gastric cancer. While VTN levels were numerically higher in patients with gastric cancer compared to healthy controls, this finding didn't reach to statistical significance ($p = 0.093$). However, when we excluded patients with stage I gastric cancer, significant elevation of VTN levels was found in gastric cancer patients compared to healthy controls ($p = 0.013$). LAMA-3 levels were significantly higher in patients with gastric cancer compared to healthy controls ($p = 0.019$). VTN (rho = 0.519 $p < 0.001$) and LAMA-3 (rho = 0.549, $p < 0.001$) showed significant correlation with stage of gastric cancer.

Conclusions LAMA-3 could be useful biomarkers for diagnosing gastric cancer and determining prognosis. And VTN could be useful biomarkers for determining prognosis of gastric cancer patients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP339 Elderly vs. young patients: clinical, endoscopic and prognostic particularities in case of upper gastrointestinal hemorrhage: prospective study

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Aims Upper GI bleeding (UGI) is the most common reason for emergency hospitalization in hepato-gastroenterology. However, there are not enough studies comparing clinical and endoscopic features between young and elderly patients with upper GI bleeding.

The aim of our study is to compare the epidemiological, clinical, endoscopic, therapeutic and prognostic features of upper GI bleeding in young vs. elderly subjects.

Methods This is a single-center prospective cross-sectional study about 332 patients, conducted over a one-year period between June 2022 and August 2023.

We included in our study all patients admitted to our emergency endoscopy unit for HDH.

We divided our patients into 2 groups, group A corresponding to subjects aged ≥ 65 years and group B corresponding to patients < 65 years.

Results Among the 332 FOGD performed for HDH, 38.9 % were older than 65 years (n = 129). The sex ratio M/F was 2.79. 31.8 % of patients were on antithrombotic therapy (n = 41), and 38.8 % had comorbidities (n = 50).

There was no statistically significant difference between the two groups A and B regarding the origin of HDH , however, it was found that there was a difference between the two groups A and B regarding the use of antithrombotic drugs (31, 8 % vs. 10.8 %, $p < 0.001$) the presence of comorbidities (39.1 % vs. 20.7 % $p < 0.001$) the presence of active bleeding (9.3 % vs. 18.7 %, $p = 0.019$) and the use of endoscopic hemostasis (8.5 % vs. 17.7 %, $p = 0.019$).

In multivariate analysis and adjusting for age, sex, comorbidities, presence of active bleeding and use of antithrombotic drugs, only the presence of active bleeding could predict the need for endoscopic hemostasis. In fact, the presence of active bleeding increased the likelihood of needing endoscopic hemostasis by 29.63-fold (OR: 29.62, CI: 13.52- 64.90, $p < 0.001$), whereas the use of antithrombotics (OR: 0.24, CI: 0.067- 1.452, $p = 0.37$) and age ≥ 65 years (OR: 0.425, CI: 0.205- 1.342, $p = 0.21$) did not influence this risk.

Conclusions Although older subject shad more comorbidities, more use of antithrombotics, HDH in this age group does not appear to be more severe with a lower rate of active bleeding at endoscopy implying a less frequent need for endoscopic hemostasis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP340 Diagnostic Accuracy of Different Cholangioscopy-Guided Biopsy Techniques for the Diagnosis of Indeterminate Biliary Duct Strictures

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Aims Indeterminate biliary duct strictures (IBDS) are a difficult diagnostic challenge. Digital single operator cholangioscopy (d-SOC) has improved diagnostic yield by the ability to obtain targeted intra-ductal biopsies by direct mucosal visualization. However, the optimal biopsy technique remains unclear. The aim of this study was to compare the diagnostic yield of d-SOC guided single standard biopsies to those obtained via bite-on-bite-biopsy (BBB) technique in patients with IBDS.

Methods This international, multicenter, prospective cohort study included patients with a diagnosis of IBDS who underwent d-SOC from November 2020 to August 2022. During d-SOC, in every patient sampling of the stricture(s) was performed by firstly obtaining at least 4 single biopsies, and secondly obtaining at least 1 BBB. Definite diagnosis of the IBDS was based on pathology outcomes (biopsies or surgical resection specimens) and clinical follow-up of at least one year. The primary outcome was the accuracy of both biopsy techniques.

Results 89 patients were included (62 % male, median age: 66 years). Location of the stricture was hilar in 52 cases and distal in 37. Single and BBB biopsies were technically successful and with sufficient tissue for diagnosis in 82 (92.1 %, median number of biopsies = 4) and 78 (87.6 %, median number of BBB biopsies = 2), respectively. These biopsies confirmed malignancy in 31/82 and 29/78 of cases, respectively. Comparing the two biopsy techniques, these techniques yielded different results in 4/78 patients (5.1 %).

In 82 (92.1 %) patients follow-up was complete and malignancy was confirmed in 51 (62.2 %) patients, resulting in an overall sensitivity, specificity and accuracy of 60.8 %, 100 % and 75.6 % of both techniques combined. For both sampling techniques, sensitivity and accuracy decreased significantly if a stent was placed at a prior ERC (n = 37, 41.6 %) or whenever prior intra-ductal tissue acquisition had been performed (n = 41, 46.1 %). The number of BBB did not affect sensitivity or accuracy. No adverse events related to d-SOC guided biopsies were noted.

Conclusions In this prospective study, BBB did not outperform at least four random single biopsies of IBDS. Prior manipulation of the IBDS, by stent placement or prior tissue acquisition, is associated with a decreased yield (Dutch Trial Register: NL9649).

Conflicts of interest P.J.F. de Jonge is a speaker and received a consultancy fee for Boston Scientific. J.J. Vila is a speaker for Pentax, Cook Medical, and Olympus and is a consultant for Boston Scientific. M.W. James received consultancy fees from Boston Scientific and Cook Medical. K.W. Oppong received research funding for investigator initiated studies from Medtronic, and received speaker fees from Medtronic and Boston Scientific. D. Joshi is a speaker and received consultancy fees from Boston Scientific, Cook Medical, and Mirum Pharmaceuticals. M. Ellrichmann received research funding for industry initiated studies from Boston Scientific. He received research funding for investigator initiated trials from Boston Scientific, He is a consultant to Boston Scientific, Microtech, Medwork and Olympus. L. Kylänpää received a speaker fee from Boston Scientific. F. van der Heide received a speaker fee from AbbVie. P. Hindryckx is a speaker and received consultancy fees from Medtronic, Boston Scientific, Viatris, Fujifilm, and Medwork. V. Cennamo is a consultant and speaker for and received travel grants from Olympus Italia, Olympus Europe, and Euromedical. G.J.M. Webster is a consultant and speaker for Boston Scientific, Cook Medical, Pentax Medical, and Olympus Europe. M.J. Bruno received research funding for industry initiated studies from Boston Scientific and Cook Medical. He received research funding for investigator initiated studies from Boston Scientific, Cook Medical, Pentax Medical, Interscope, Mylan, and ChiRoStim. He is a consultant to Boston Scientific, Cook Medical, and Pentax Medical. The remaining authors have no conflicts of interests to disclose.

eP341 Endoscopic Retrograde Cholangiopancreatography and Mucosal/Submucosal Resection Training in France: A Survey Among Former Students of the Interventional Endoscopy

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Aims Advanced interventional endoscopy techniques such as endoscopic retrograde cholangiopancreatography (ERCP) and mucosal/submucosal resection (MR/SD), among others, are complex procedures that require a high level of expertise to provide effective and safe patient care. Specific training in advanced endoscopy has been offered in France since 2003 and lasts for two years following the completion of the Digestive and Hepatogastroenterology Specialty (DES). To obtain the diploma, students must successfully perform over 100 ERCP procedures on a native papilla, as well as perform digestive and biliary stent placements and mucosectomies. Due to the necessity of high-quality training to achieve competence, we sought to evaluate the practices of former trainees of the Interventional Endoscopy (IE) DIU in their current professional roles.

Methods An online survey was developed, and former trainees were invited to participate.

Results In October 2023, 100 trainees and former trainees responded to the questionnaire. Of these, 59 (62.8 %) were male. 53 % of participants did not require placement on a waiting list, 37 % waited for one year, and 10 % waited for over a year. Seventeen trainees (17 %) encountered difficulties in finding a training site. 87 % were in immediate post-internship positions at the time of registration. Almost all former trainees continued to practice interventional endoscopy after completing their training. Practice settings included hospitals in 67 % of cases, private practices in 18 %, and a combination of both in 9 %. Former trainees currently perform IE procedures once a week in 24 % of cases, twice a week in 40 %, and three times a week in 22 % of cases, typically as members of a team in 96 % of cases. The monthly procedure volume performed by former trainees is described in Table 1. The majority of former trainees (86 %) remained in the same region/city where they completed their IE program. The geographical distribution of former trainees was consistent throughout the country. Eighty-six percent did not require additional training, and 90 % found the volume of endoscopy required during training and practical gastroenterology workshops to be sufficient and satisfactory.

Conclusions This survey demonstrates that the IE training program in France adequately meets the country's needs and enables former trainees to acquire the necessary competence to continue their careers in IE without requiring additional training. Recent adjustments to our program aim to further align with the training guidelines of the European Society of Gastrointestinal Endoscopy (ESGE).

Conflicts of interest none

eP342 Diagnosis of Helicobacter pylori Infection by the Arrangement of Collecting Venules Using White Light Endoscopy: preliminary results of a multicenter study

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DOI 10.1055/s-0044-1783631

Aims Helicobacter pylori (HP) is the major cause of gastritis and gastritis-associated diseases. Endoscopic detection of a regular arrangement of collecting venules (RAC) pattern in the lesser gastric curvature correlates with negative HP status in Asian countries when using magnification endoscopes. The aim of the study was to evaluate the value of RAC as a diagnostic method of HP infection during non-magnification white-light endoscopy in Western countries.

Methods Prospective study including patients older than 18 years without previous history of HP infection or eradication undergoing a gastroscopy with high-definition (HD) endoscopes without magnification nor virtual chromoendoscopy. Exclusion criteria were: intake of oral anticoagulants, NSAIDs or antibiotics in the last 4 weeks; diseases that affect the gastric mucosa (portal hypertension, gastric lymphoma), previous gastric cancer or in surveillance for atrophic gastritis/IM, previous gastric surgery, presence of blood or food. Participant endoscopists were trained with 20 HD images. The presence of starfish-like minute points regularly distributed throughout the lesser curvature of the gastric body was considered as RAC. In case of doubtful RAC, the pattern was considered irregular. Gastric biopsies were performed during the procedure for HP diagnosis.

Results Three hundred fifty-four patients were included from December 2021 to November 2023, 192 (54.2 %) were women with a mean age of 53 + 0.9 (18-89). Gastroscopies were performed by 12 endoscopists from 10 hospitals in Europe and Africa. One hundred twenty-one (34.2 %) patients did not stop IBP. In 228 patients (64.4 %) there were no mucosal abnormalities. The prevalence of Hp infection was 24.9 % and 117 of 354 patients (33.1 %) presented RAC pattern. RAC prevalence was higher in patients without IBP (34.9 %) than taking IBP (26.4 %, $p < 0.001$) and under 50 years old (41.6 %) compared to patients over 50 (26.2 %, $p < 0.001$). The absence of RAC pattern was associated with Hp infection in 35.8 % of cases. Contrarily, only 3 out of 117 patients with RAC showed HP infection, with negative predictive value (NPV) of 97.4 % for HP. The positive predictive value (PPV), sensitivity and specificity of the RAC pattern were 36.1 %, 96.7 % and 43.1 % respectively.

Conclusions The presence of RAC in the lesser curvature evaluated with white light endoscopy can accurately identify patients without HP in clinical practice in Western countries. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP343 The Impact Of Blood Thinners In The Diagnosis Of Upper Gastrointestinal Tract Malignancy, In Patients With Signs Suggestive Of Upper Gastrointestinal Bleeding

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Aims Aim of this study was to analyze the impact of blood thinners in the diagnosis of upper gastrointestinal (GI) tract malignancy, in patients with signs suggestive of upper GI bleeding.

Methods Retrospective study of 393 patients with melena, hematemesis, coffeeground hematemesis or bloody nasogastric aspirate, who had an esophagogastroduodenoscopy in the Gastroenterology Department of the General Hospital of Ioannina, Greece, between January 2019 – October 2023. Data regarding patient treatment and endoscopic findings were retrieved from the electronic patient records. Of the 461 patients initially identified, patients with known gastrointestinal cancer (n:17), variceal bleeding (n:10), or missing data (n:41) were excluded from data analysis. To evaluate the strength of the association between blood thinners and gastric malignancy, a two-by-two contingency table was analyzed and Odds Ratio (OR) was calculated. Subjects were categorized into four categories based on the use, or not, of blood thinners (Exposed, or Non-Exposed, groups) and the diagnosis, or not, of upper GI malignancy.

Results 294 patients (Exposed group; males 186, age 77.37 years old, Std.D 12.27) were on blood thinners (Acetylsalicylic Acid, n:55; Clopidogrel, n:22; Dual Antiplatelet Therapy, n: 20; Triple Therapy, n:4; Direct Oral Anticoagulants, n:99; Acenocoumarol, n: 31; Low Molecular Weight Heparin, n:38; NSAID, n: 25). 99 patients had no record of blood thinners use (Non-Exposed group; males:73, age 59.36 years old, Std.D 21.03). In the exposed group, 21 patients were diagnosed with upper GI malignancy. Other diagnoses were: Non-significant findings, n:103; Gastric Ulcer, n:51; Duodenal Ulcer, n:40; Esophagitis, n:19; Arteriovenous malformation (AVM), n:26; Mallory Weiss Tear (MWT), n:19; Dieulafoy's lesion, n:5; Cameron lesion, n:2; GAVE, n:2; Hyperplastic polyp, n:7; Adenomatous polyp, n:1. In the Non-Exposed group, 9 patients were diagnosed with upper GI malignancy. Other diagnoses were: Non-significant findings, n:27; Gastric Ulcer, n:24; Duodenal Ulcer, n:22; Esophagitis, n:4; MWT, n:11; Cameron lesion, n:1; Hyperplastic polyp, n: 1. The OR for the diagnosis of upper GI malignancy, polyps and vascular lesions (AVM, Dieulafoy's lesion, GAVE) were 0.79 [(95 % CI: 0.35 to 1.77) P = 0.56],2.75 [(95 % CI: 0.34 to 22.27), P = 0.34] and 25.5 [(95 % CI: 1.55 to 420.07), P = 0.02], respectively. [1–2]

Conclusions A strong association between blood thinners and the diagnosis of vascular lesions was identified. However, no significant statistical difference was identified regarding the diagnostic rate of upper GI malignancy or polyps between the exposed and non-exposed to blood thinners groups.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP344 Clinical and epidemiological profile of digestive hemorragia during VKA overdosage in elderly subjects

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Aims All anticoagulant treatments, whether preventive or curative, maybe responsible for digestive hemorrhage (DH). These are essentially anti-vitamin K drugs (VKA), most often due to dosage errors. The management of these patients poses a major therapeutic problem, since the hemorrhage occurs in elderly patients at high thrombo-embolic risk, with the increased incidence of severity of these DH. The aim of this study was to clarify the epidemiological, clinical and evolutionary of DH in elderly patients with VKA overdosage.

Methods It is a retrospective descriptive study over a 10-year period from January 1, 2010, to December 31, 2020, including all patients over 60 years of age hospitalized in the Gastroenterology Department at CHU Sahloul in Sousse (Tunisia) for digestive hemorrhage related to VKA overdosage

Results The total number of patients included in the study was 36. These included 11 men (30.55 %) and 25 women (69.45 %). The mean age was 77 years. The indication for VKA treatment was: atrial fibrillation (48.17 %), valve replacement (37.3 %), and deep vein thrombosis (7.8 %). Hemorrhage was externalized as melena (58.8 %), hematemesis (31.4 %), and rectal bleeding (23.5 %). None of our patients presented with shock; 16.7 % were tachycardic, and 5.9 % had hypotension. DH was confirmed in 82.3 % of cases by digital rectal examination. Laboratory analysis revealed anemia (Hemoglobin < 10 g/dl) in 90.3 % of cases, the mean prothrombin time (PT) level was 15.76 ± 6.32, the mean INR value at diagnosis was 10.25 ± 3.03, and the mean urea level was 15.44 ± 10.85 mmol/L. The lesions responsible for hemorrhage were: peptic ulcer disease (19.5 %), esophageal disease (12.7 %), recto-colonic tumors (2.77 %), colonic diverticulosis (12.2 %), colonic angiodysplasia (5.55 %), and ulcerative colitis (5.55 %). With regard to management, immediate discontinuation of anticoagulants was done in all patients, in parallel with the administration of vitamin K and prothrombin complex concentrate (PPSB). Twenty-eight patients (77.7 %) received red blood cells (RBCs) with an average of 3 RBCs transfused. We used endoscopic treatment in 3 patients (8.31 %); one patient had an elastic ligation of esophageal varices, one patient was treated with argon plasma, and one patient received an injection of adrenaline. We had surgical treatment in one patient (total colectomy for uncontrollable DH). Most cases were favorable in the majority of cases (97.22 %). Death occurred in 1 patient following a recurrence of severe hemorrhage.

Conclusions Digestive hemorrhage on VKAs is a serious complication, particularly all the more so if it occurs in an elderly, multi-morbid subject. It is therefore always important to weigh the risk-benefit ratio before introducing long-term anticoagulant therapy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP345 Clinical efficacy and cost-effectiveness of local hemostatic agents in upper gastrointestinal bleeding

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Aims Upper gastrointestinal bleeding (UGIB) is the most common manifestation of gastrointestinal (GI) bleedings. In recent years, local hemostatic agents became more widely available and are associated with a high rate of successful immediate yet short-term hemostasis. However, the clinical efficacy on UGIB recurrence is unknown. This study aims to evaluate the clinical efficacy of bentonite and synthetic peptides on immediate endoscopic hemostasis and UGIB recurrence.

Methods This is a retrospective monocenter study. All patients with UGIB receiving local hemostatic agents (bentonite or synthetic peptides) at a tertiary center between 2013 and 2023 were included in the study. The outcome was immediate endoscopic hemostasis and UGIB recurrence.

Results A total of 274 patients were included in the study. 252 patients (92 %) were treated with either bentonite or synthetic peptides, 8 % received both substances. 185 patients (68 %) were male with a median age of 65 (56 – 75) years. The most common locations of UGIB were gastric (34 %) and duodenal (38 %). 31 (11 %) and 37 (14 %) patients were under medication with antiplatelet agents and oral anticoagulants, respectively.

125 patients (45.6 %) had one and 49 (17.9 %) had more than one recurrent UGIB episodes. Synthetic peptides and bentonite were used in 39 % and 53 % of index UGIB. Furthermore, synthetic peptides and bentonite were used in 25 % and 12 % of recurrent UGIB.

Immediate endoscopic hemostasis was similarly high between both agents for index UGIB (94 % (synthetic peptides) vs. 92 % (bentonite), $p = 0.65$) and recurrent UGIB (100 % (synthetic peptides) vs. 88 % (bentonite), $p = 0.12$). Synthetic peptides showed a trend towards lower rates of recurrent UGIB but without statistical significance (37 % (synthetic peptides) vs. 62 % (bentonite), $p = 0.10$). There were no adverse events with both agents.

Conclusions Both bentonite and synthetic peptides are safe and effective local hemostatic agents in the treatment of UGIB, achieving high rates of local hemostasis during index UGIB. Synthetic peptides showed a trend toward lower rates of recurrent UGIB episodes.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP346 Surgery after endoscopic removal of a malignant polyp: is residual disease a real issue?

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Aims Evaluate factors associated with the presence of residual malignant disease in the surgical specimen after endoscopic removal of a malignant polyp without endoscopic cure.

Methods Retrospective, cohort study including patients with a malignant polyp endoscopically removed without endoscopic cure, who underwent surgery. The absence of endoscopic cure was defined as positive vertical resection margins (< 1 mm), poorly differentiated grade, depth of submucosal invasion > 1 mm, presence of lymphatic or vascular invasion, or presence of tumour budding. Patients with a synchronous neoplastic lesion and those with a malignant polyp without complete endoscopic removal were excluded.

Results Included 74 consecutive patients submitted to surgery after the endoscopic removal of a malignant polyp without endoscopic cure. Regarding the endoscopic mucosal resection (EMR), 45 polyps were removed in one fragment (60.8 %) and the other 29 were submitted to piecemeal EMR (39.2 %). In 15 cases, snare tip spray coagulation (STSC) was performed at the margins of mucosal defects after EMR, 6 in normal-appearing margins (8.1 %) and 9 in margins suspected of residual adenomatous tissue (12.2 %). Considering the post-operative outcomes, 7 patients required surgical re-intervention (9.5 %), 1 was admitted in the intensive care unit (1.4 %), 1 patient died (1.4 %), and 2 patients required re-hospitalization in the following 6 months (2.7 %).

The presence of residual malignant disease in the surgical specimen occurred in 9 patients (12.2 %), 7 had intramural disease (9.5 %) and 2 had nodal metastasis (2.7 %). Patients with polyps with a flat component were 5 times more

likely to have residual disease in the surgical specimen ($p = 0.043$). Patients with polyps submitted to piecemeal EMR were 7 times more likely to have residual disease in the surgical specimen ($p = 0.024$), with 2 patients with residual disease after EMR in one fragment (4.4 %) and 7 patients with residual disease from the piecemeal EMR group (24.1 %). Those in which STSC was performed were also more likely to have residual disease in the surgical specimen ($p < 0.001$). No statistically significant differences were found between the presence of positive margins, lymphatic or vascular invasion or well or moderately differentiated histologic grade, and the presence of residual disease in the surgical specimen ($p = 1.000$, $p = 0.675$ and $p = 0.686$, respectively). Tumour budding was described in 3 patients, none had residual disease in the surgical specimen.

Conclusions A minority of patients had residual malignant disease in the surgical specimen, with a higher risk for those with polyps with a flat component or that were submitted to piecemeal EMR. In fact, with piecemeal EMR almost one quarter of patients had residual disease e less than 5 % of those with EMR in one fragment had residual disease in the surgical specimen, highlighting the need for a careful evaluation of the polyp before endoscopic removal and the importance of removal in one fragment, in case of suspected submucosal invasion.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP347 Choledocholithiasis Appearing as Periampullary Mass Lesions on Abdominal Imaging: A Retrospective Case Series

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DOI 10.1055/s-0044-1783636

Aims Distinguishing choledocholithiasis from periampullary masses that may be malignant is paramount given the different management options and prognoses for these conditions. There have been cases where patients with initially suspected periampullary masses turned out to actually have choledocholithiasis. This scenario may confound clinical decision-making and cause unnecessary apprehension on the patient's end. This study therefore aimed to look into possible clinical factors that may be associated with choledocholithiasis having the appearance of suspicious masses on abdominal imaging. Identification of such factors may aid in future diagnoses of choledocholithiasis in instances where abdominal imaging studies would suggest features of periampullary masses despite actual gallstone disease.

Methods All endoscopic ultrasound (EUS) procedures done at Philippine General Hospital in a 18-month period from 2022 to 2023 were reviewed to identify those that had a primary diagnosis of choledocholithiasis. These were further sifted to isolate the cases where the pre-endoscopic impression was a possible periampullary mass based on prior abdominal computed tomography (CT) scan or magnetic resonance imaging (MRI). As a comparison group, records of patients with actual periampullary masses detected on EUS were checked. The clinical profiles of the patients in both groups were then compared to identify possible factors that relate to choledocholithiasis appearing as periampullary masses. The following parameters were assessed: age, presence of diabetes mellitus/impaired fasting glucose, family history of cancer, smoking habit, alcoholic intake, presence of abdominal pain, presence of jaundice, anemia, leukocytosis, thrombocytopenia, serum alkaline phosphatase > 120 U/L, and serum alanine aminotransferase (ALT) > 40 U/L.

Results A total of 10 patients were noted to present with suspected periampullary masses on abdominal imaging with eventual diagnoses of choledocholithiasis on EUS, while a total of 71 patients with suspected periampullary masses did turn out to actually have periampullary masses on EUS. Due to lacking data, only the parameters of age, presence of abdominal pain, and presence of jaundice were assessed completely. For the choledocholithiasis group, 4/10 (40 %) were at least 60 years of age, 8/10 (80 %) presented with abdominal pain, and 7/10 (70 %) presented with jaundice. These frequencies did not significantly differ from those in the comparison group, where 41/71 (58 %) were at least 60 years of age, 49/71 (69 %) presented with abdominal pain, and 45/71 (63 %) presented with jaundice. The frequencies in the choledocholithiasis group also did not seem to differ much from published local data on the frequencies of the same parameters for periampullary malignancies. [1–3]

Conclusions The clinical factors of older age, presence of abdominal pain, and presence of jaundice do not seem to distinguish patients with suspected periampullary masses on prior abdominal imaging who turn out to have gallstone disease on EUS from those who actually have periampullary masses. A larger prospective study is suggested.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP348V Endoscopic removal of endoluminally migrated mesh in patient undergoing maclean vertical bend gastroplasty

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Abstract Text We present the case of a 54 year old woman that has undergone the MacLean technique of vertical band gastroplasty in 2003. Because of abdominal pain, nausea and vomiting, an upper endoscopy in July 2022 showed partially migrated mesh creating an incomplete obstruction. We cut the exposed part of the mesh with pulsed APC (Argon Plasma Coagulation, ERBE Fi-APC-Sonde 2200A-7.0-effect/strength) close to the sites of penetration through the gastric wall. The control upper GI series showed the normal passage of the contrast medium with stomach anatomy corresponding to previous bariatric surgery. At 6 month clinical follow-up the patient was asymptomatic. This is the first case treated endoscopically with APC, where we applied the method that is used in tailoring of self-expandable metallic biliary stents.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/6474cdd0-66f6-466f-8402-12ba82fc97b4/Uploads/13821_Il_mio%20filmato%202%20(2).mov

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP349 Optimising EUS-FNB guided tissue acquisition: The significance of TRAP score in solid pancreatic and gastrointestinal lesions for positive diagnostic output

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Aims Endoscopic ultrasound-guided FNB tissue acquisition (EUS-FNB-TA) has revolutionized diagnostic approaches in gastroenterology related solid lesions.

Accurate lesion localization, needle gauge, rapid on-site evaluation (ROSE), effective tissue core (>4mm) size, effective number of needles passes (such as>2 passes) are the requirement for the successful output. Furthermore, advanced age especially>60 also considered a risk factor for GI related malignancies. Keeping this in view, the Purpose **or AIM** of this study was to develop the tool/score based on the important factors responsible for higher number of positive EUS-FNB-TA output.

Methods This is a retrospective study, conducted at the gastroenterology-department of Liaquat National Hospital, Karachi, Pakistan. Data collection duration was Jan-2019 to July-2023, after asking institutional permission. It included all consecutive data of gastrointestinal/pancreatic EUS-FNB from departmental Electronic Medical Record (EMR). Abandoned procedures data were excluded. A TRAP score/tool was developed. It included four parameters such as Tissue size (T, 1 = >4mm and 0 = <4mm), Rapid onsite evaluation (R, 1 = for positive and 0 = for negative), Age (A, 1 = 60 years and above and 0 = <60-year), number of Needle's passes (P, 1 = >2 passes and 0 = 2 and <2 passes) with 0-4 range. Data was entered and analyzed using SPSS version 25. ROC was plotted to determine the performance of TRAP score in prediction of malignant-cases and AUC was calculated. Sensitivity, specificity, positive and negative predictive values were computed at threshold of TRAP score of 3 and above. [1–4]

Results Total 122 EUS-FNB data (84/122, 69.9 % malignant) was collected from EMR. Patients' median age was 60-years (IQR = 48-67) with males (59.8 %) dominance. Pancreas was common biopsy site (73.8 %). Malignant lesion was the output in 81.2 % of patients with age>60 years, in 86.9 % with>2 needle passes, in 88.9 % of tissue size>4mm, in 93.1 % of ROSE positive. Median TRAP score was 3 (IQR = 2-4). ROC curve showed an AUC of 0.961 with statistical significance. At threshold of 3 and above, sensitivity, specificity was 83.3 %, 100 %, while positive predictive and negative predictive value were 100 % and 73.1 % respectively.

Conclusions TRAP score can be useful tool for the predictability of higher EUS-FNB-TA positive output in gastrointestinal and pancreatic solid lesions.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP350V Endoscopic management of an early-onset extensive traxheoesophageal fistula

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DOI 10.1055/s-0044-1783639

Abstract Text Tracheoesophageal fistula (TEF) refers to an abnormal communication, either congenital or acquired, that occurs between the posterior wall of the trachea and the adjacent anterior wall of the esophagus. The primary etiology of acquired, nonmalignant TEF is long-term intubation, with an average duration from intubation to manifestation of 42 days. We present a case of early-onset TEF that occurred eight days after ventilator support. During the upper GI endoscopy, a significant defect was identified in the anterior wall of the esophagus, allowing for clear visualization of the endotracheal tube. A fully covered esophageal stent was successfully deployed, providing entire covering of the gap, while a nasogastric tube was inserted via the stent. The stent was fixed at its proximal end with a TTS clip.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/7c17efc3-bd95-44de-a073-2e0a089d167f/Uploads/13821_Tracheoesophageal_fistula.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP351 Endoscopic Management of Post-Surgical Biliary Leaks: A Two-Center Experience

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Aims Post-surgical biliary leaks (PSBL) are one of the most prevalent and significant complications emerging after liver or biliary tract surgeries, possibly leading to life-threatening complications. Different surgical interventions can result in different types, locations or extent of the leaks, nevertheless the mechanism that maintains the leak is always related to the pressure gradient within the biliary tree. Endoscopic retrograde cholangiopancreatography (ERCP) alone or combined with a percutaneous transhepatic approach (Rendez Vous) as treatment of PSBL obtains optimal outcomes due to the possibility to modify the pressure gradient in the biliary tree.

Methods A retrospective double-center study was conducted in two tertiary centers. Consecutive patients who underwent at least one attempt of PSBL correction by ERCP or Rendez Vous procedure between January 2018 and August 2023 were included. The primary outcome was the endoscopic clinical success, while the secondary outcome was the hospital stay exceeding five days. Both univariate and multivariate analyses were used to assess outcomes.

Results 59 patients were included (67 % female; mean age 58.9 years). 28 (47 %) had a PSBL after cholecystectomy, 17 (29 %) after liver transplant, 9 (15 %) after hepatectomy and 5 (8 %) after cholecystectomy with gallbladder bed resection. Endoscopic clinical success after one or more procedures was achieved in 51 (86 %) patients. 42 (71 %) patients had a hospital stay length longer than five days. Patients with one or more leaks had more possibility to achieve the endoscopic clinical success compared to those with one or more biliary stenosis associated to the leak (95 % vs 62.5 %, p-value 0.004); this data was confirmed during multivariate analyses. Leaks occurring on the main biliary duct had less probability (64 %) to achieve the endoscopic clinical success compared to those in the end-to-end anastomosis (87 %), in the resection plan or biliary stump (96 %) or first or secondary order biliary branches (100 %, p-value 0.04). A leak-bridging stent positioning had more probability to achieve the primary outcome compared to a not leak-bridging stent (100 % vs 77 %, p-value 0.038). Finally, only ASA-score was statistically significant and correlated to hospital stay exceeding five days (p-value 0.036). Adverse events were reported in 10 % of cases, but none were grade 3 or higher according to the Clavien-Dindo Classification.

Conclusions ERCP and Rendez Vous procedures are safe and effective for treating PSBL, regardless of the type of preceding surgery, even if technical or clinical success was not achieved on first attempt. Stent positioning is suggested and, if possible, the stent has to be placed leak-bridging to enhance treatment efficacy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP352 Endoscopic Treatment of Anastomotic Leak after Esophagectomy and Gastrectomy

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DOI 10.1055/s-0044-1783641

Aims Presentation of cases and endoscopic treatment of anastomotic leaks after esophagectomy and gastrectomy.

Methods A retrospective recording of esophagogastric and esophagojejunal anastomotic leaks was carried out during the period 2022-2023. During this time, 32 patients underwent Ivor Lewis esophagectomy, 34 patients underwent McKeown esophagectomy, 1 patient underwent esophagectomy with esophagogastric anastomosis in the cervix, 2 patients underwent esophagogastrectomy with colonic interposition. Total gastrectomy according to Roux en Y was performed in 48 patients, subtotal gastrectomy according to Billroth 2 in 1 patient and subtotal gastrectomy according to Roux en Y in 7 patients.
Anastomotic leakage was observed in 24 of the above patients (19.6 %). 5 patients had undergone McKeown esophagectomy, one patient with esophagectomy and esophagogastric anastomosis due to LES rupture, 7 patients with Ivor Lewis esophagectomy, 9 patients with Roux en Y esophagectomy with esophagojejunal anastomosis, one patient with Billroth 2 subtotal gastrectomy, one patient with restoration of digestive continuity with colon. [1–5]

Results Fully covered esophageal stent placement was performed in 14 patients for a maximum of 6 weeks. Endoscopic placement was performed in 8 patients and in 6 patients underwent randez-vous stent placement in the operation room, with simultaneous collection drainage. Also, in 3 patients was placed second fully covered esophageal stent (stent-in-stent). The median time of leakage healing was 31 days. The success rate was about 92.8 %

Conclusions The management of anastomotic leakage is particularly complex, but with a variety of options. The contribution of Gastroenterologists is now necessary for the treatment of the majority of anastomotic leaks after esophagectomy and gastrectomy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP353 Contribution of duodenal biopsies in pancreatic cancer with duodenal involvement: Single-center experience

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DOI 10.1055/s-0044-1783642

Aims Pancreatic cancer is a silent killer cancer and the fourth leading cause of cancer-related death with a poor overall survival rate. Most patients with pancreatic carcinoma develop, independently or concomitantly, biliary obstruction and/or direct duodenal invasion during their disease. Detection of pancreatic cancer in duodenal biopsy specimens could be a diagnostic challenge. We investigated a series of duodenal biopsies to identify duodenal wall invasion by pancreatic carcinoma. Furthermore, this study aimed to evaluate duodenal involvement as a prognostic factor for the survival of patients with pancreatic cancer.

Methods The endoscopic database from the gastroenterology department of our University hospital was reviewed. 214 patients with borderline resectable, locally advanced or metastatic pancreatic cancer were identified between June 2018 and November 2023. Demographic data and pathological features were also taken into account. This database was employed to identify duodenal wall invasion through duodenal biopsies and to evaluate the prognostic impact of duodenal involvement on the overall survival of pancreatic cancer.

Results Duodenal invasion was suspected in 62 cases (28.9 %) among 214 patients with pancreatic cancer who underwent duodenoscopy at diagnosis. The pathological specimens have shown respectively in three cases (0.9 %) namely, pancreatic invasion from duodenal adenocarcinoma, duodenal metastasis from lung adenocarcinoma with synchronous benign pancreatic lesion and duodenal metastasis from primary pancreatic adenocarcinoma. These last three cases were excluded from this study. The median age of the selected patients was 68.5 years [IQR: 45-92]. The male/female ratio was 1.29:1. The most common site was head of pancreas (75 %). Locally advanced (43.3 %) and metastatic (41.6 %) cancers were predominant, while borderline resectable tumors were observed only in 3.3 % of cases. Among 59 patients (27, 5 %) with suspected duodenal involvement, 55 gastroduodenal lesions were identified during duodenoscopy as follows: duodenal invasion (n = 53) (90 %) and signs of portal hypertension (n = 2) (3 %). Pathological diagnosis of duodenal invasion was confirmed in 20 patients (34 %), adenocarcinoma was the most common type of pancreatic cancer (85 %). In 47 % of cases, no duodenal invasion was found, and the diagnosis of pancreatic carcinoma was proved by brush cytology during ERCP and/or by Endoscopic Ultrasound-Guided Fine Needle Aspiration (EUS-FNA). Duodenal wall invasion could not be assessed in seven patients (12 %) due to the lack of histological data and/or insufficient samples. In multivariate survival analysis, there was no worsening of overall survival in patients with duodenal invasion. [1–3]

Conclusions In this study, the association between duodenal involvement and overall survival could not be established. Our findings concluded that approximately 35 % of patients with suspected duodenal involvement have shown duodenal invasion. These outcomes suggested that if duodenal involvement was suspected, duodenal biopsies should be performed.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP354 Single center experience with Exposed Endoscopic Full-Thickness Resection (E-EFTR) of rectal lesions with scarring or suspected deep submucosal invasion

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DOI 10.1055/s-0044-1783643

Aims the endoscopic management of rectal lesions displaying scarring or suspected deep submucosal invasion poses a challenging task. Standard endoscopic resection techniques like Full-Thickness Resection Device-assisted

(FTRD) and Endoscopic Submucosal Dissection (ESD) present some limitations with these kinds of lesions. FTRD use is constrained by lesion size and location, while ESD is limited in obtaining histologically complete (R0) resections in case of deep submucosal involvement and in resecting scarring lesions. Here we present our initial experience with E-EFTR for the treatment of complex rectal lesions.

Methods 14 patients who underwent E-EFTR at S. Giovanni Bosco Hospital in Turin, Italy, between April 2018 and October 2023 were prospectively included. Indications for the procedure were adenoma recurrence over scarring from previous resection attempts (n = 9), lesions with suspect of deep submucosal invasion (n = 4) and one post-neoadjuvant radiotherapy T1 adenocarcinoma (AC) in a patient unfit for surgery. EFTR was performed with an ESD knife by circumferential incision of the mucosa, followed by dissection of the underlying layers until the mesorectum was exposed, and the lesion was completely removed. Registered outcomes were technical success (defined as a successful transmural resection of the lesion), en-bloc resection rate, curative resection rate, adverse events, and recurrence rate at follow-up.

Results all lesions were located in the rectum at a median distance from pectinate line of 30 mm (range 0-200). Median lesion size was 32.5 mm (IQR 17.5-40) and median procedure time was 180 minutes (IQR 144-272). Technical success was achieved in 100 % of cases, with an en bloc resection of 85.7 % (12/14). All patients were hospitalized for a median of 3 days (IQR 2-4) and receceived prophylactic antiobiotics for a median of 5 days (IQR 4-6). Histology revealed AC in 6 cases: one T1, four T2, and one T3. Overall, R0 resection rate was 64.3 % (9/14) and curative resection was achieved in 64.3 % (9/14) of patients. No major intra or post-procedural adverse event were reported. No evidence of recurrence was detected during a median endoscopic follow-up of 8.2 months (IQR 3-11).

Four patients required further surgical radicalization. Pathological staging on surgical specimens revealed two pT0N0, one pT3N0, and one pT3N1.

Conclusions the positive preliminary outcomes from our experience suggest that E-EFTR may represent an effective and safe option for the treatment of complex rectal lesions, capable of achieving curative or at least stadiative resection.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP355 Efficacy and safety of Bowel Preparation Strategies in Inflammatory Bowel Disease Patients Undergoing Colonoscopy: A Systematic Review and Meta-Analysis

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Aims The ESGE guidelines recommend high or low volume PEG-based bowel preparation for inflammatory bowel disease (IBD).[1] Recently available, non-PEG sulphate-based options provide additional choices. This systematic review meta-analysed efficacy and safety of bowel preparations for IBD patients undergoing colonoscopy

Methods We searched CENTRAL, ClinicalTrials.gov, Embase via Ovid, MEDLINE via Ovid, WHO ICTPR for RCTs until October 2023, covering all preparation types. Primary outcomes included bowel preparation success, tolerability, willingness to repeat, and safety. Secondary outcomes were caecal intubation rates (CIR) and abnormal serum electrolyte levels. Pooled estimates used risk ratio (RR) and 95 % confidence interval (CI). GRADE assessed evidence certainty.

Results Ten RCTs(1479 IBD patients) were included, which compared 4L-PEG, with/without simethicone, castor oil vs. senna, two commercial low-volume PEG-based preparations, 2L PEG vs. 4L PEG, and low-volume PEG with additives vs. non-PEG-based preparations. For 2L vs. 4L PEG, bowel prep success showed no difference (RR 0.95,95 % CI:0.88-1.09;I2 = 33 %,2 RCTs;high certainty evidence). Willingness to repeat favored 2L (RR 0.69,95 % CI:0.59-0.80; I2 = 18 %,2 RCTs;high certainty evidence). In low-volume non-PEG vs. PEG, bowel prep success probably equaled (RR 0.96,95 % CI:0.90-1.01;I2 = 6 %,3 RCTs;moderate certainty evidence). Tolerability and willingness to repeat evidence was very uncertain (RR 0.81,95 % CI:0.67-0.99;I2 = 76 %,3 RCTs; very-low certainty evidence), (RR 0.77,95 % CI:0.59-0.99; I2 = 83 %,3 RCTs;very-low certainty evidence). No difference in CIR (RR 0.98,95 % CI:0.93-1.03;I2 = 0 %,2 RCTs;high certainty evidence). No abnormal post-bowel preparation electrolyte levels were noted in either group. Sub-group analysis showed comparable effectiveness of picosulphate-based (RR 0.89,95 % CI:0.78-1.01;I2 = 0 %,1 RCT) and sulphate-based preparations (RR 0.96,95 % CI: 0.90-1.05;I2 = 28 %,2 RCTs) compared to low-volume PEG-based preparations. Similar trends were noted for tolerability (RR 0.86,95 % CI: 0.73-1.01;I2 = 22 %,1 RCT with picosulphate-based, and RR 0.76,95 % CI:0.45-1.26; I2 = 91 %,2 RCTs with sulphate-based vs. low-volume PEG-based,respectively) and willingness to repeat (RR 0.62,95 % CI:0.33-1.16;I2 = 86 %,1 RCT with picosulphate-based, and RR 0.88,95 % CI:0.65-1.20;I2 = 86 %,2 RCTs with sulphate-based vs. low-volume PEG-based, respectively). Safety data were inconsistently reported.

Conclusions High-certainty evidence from two trials supports low-volume PEG with additives as comparably successful to high-volume PEG, with increased willingness to repeat. Moderate-certainty evidence from three trials indicates similar success between non-PEG-based and PEG-based preparations. Both low-volume PEG-based and non-PEG-based preparations have evidence supporting their clinical utility for IBD patients, expanding choices beyond ESGE 2019 guidelines.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP356 Efficacy and safety of snare-assisted endoscopic resection and endoscopic submucosal dissection in the treatment of gastric submucosal tumors (

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DOI 10.1055/s-0044-1783645

Aims The aim of this study was to compare the efficacy and safety of snare-assisted endoscopic resection with endoscopic submucosal dissection for the treatment of gastric submucosal tumors (< 1 cm) originating from the muscularis propria.

Methods From January 2020 to December 2022, gastric submucosal tumors (< 1cm) treated endoscopically in our hospital were collected and analyzed. According to different endoscopy technique, patients were divided into snare-assisted resection group and endoscopic submucosal dissection group. The clinical baseline data, endoscopy therapy results and follow-up of the two groups were collected and compared.

Results A total of 85 patients were included in this study, of which 35 patients underwent snare-assisted endoscopic resection and 50 patients underwent endoscopic submucosal dissection. There were no differences in clinical baseline data, en bloc resection rate, postoperative fasting time, and postoperative hospital stay between the two groups. The operation time of the snare-assisted endoscopic resection group was significantly shorter than that of the endoscopic submucosal dissection group. One patient in the endoscopic submucosal dissection group developed intraoperative perforation and was treated with endoscopic closure. No adverse events occurred in the snare-assisted endoscopic resection group. During the mean follow-up period, no recurrence was observed in both groups.

Conclusions Snare-assisted endoscopic resection is a safe and effective technique, which is an alternative choice for the treatment of gastric submucosal tumors. However, its long-term efficacy still needs to be assessed by large-sample studies.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP357V A rare case of gastroesophageal junction lesion

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Abstract Text A 55-year-old man came to our institution for a large lesion at gastroesophageal junction. Although he had undergone endoscopic mucosal resection of an adenoma in distal esophagus 3 years previously. Esophagogatrduodenoscopy showed scattered exophytic papillare and lobulate lesions located from lower esphagus to cardia, with irregular Z-line. Magnifying endoscopy with narrow-band imaging showed dilated microvessels in the swollen glands. Therefore, endoscopic submucosal dissection was performed. The size of the resected specimen was 8×2.5cm. Histological examination showed that the squamous papilloma originated from the esophagus and invaded the cardia. The patient's postoperative course was uneventfully, and confirmed through endoscopic examination one year later that there was no recurrence. Endoscopic submucosal dissection is surely the appropriated technique to remove this kind of lesion.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/24d226e2-1818-4a9a-a6e1-dfb9f2d8e457/Uploads/13821_A_rare%20case%20of%20gastroesophageal%20junction%20lesion.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP358V Endoscopic retrograde appendicitis therapy for periappendiceal abscess

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DOI 10.1055/s-0044-1783647

Abstract Text A 35-year-old female patient was admitted our hospital due to fever and abdominal pain. Abdominal ultrasound and CT showed appendicitis and abscess formation around the appendix. The patient refused appendectomy, and thus endoscopic retrograde appendicitis therapy was attempted. A transparent cap was attached at the tip of the endoscope and was together inserted to the opening of the appendix. Then, the Gerlach's valve was put away, and a catheter was intubated to the appendix cavity under X-ray monitoring. Subsequently, the contrast agent was injected into the appendiceal cavity to show the contrast agent accumulated along the ascending colon. Finally, a plastic stent was implanted. A large amount of pus flowing out through the stent, and the appendiceal cavity was fully flushed with saline. The patient was discharged successfully 3 days later. There was no recurrence during the follow-up period.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/2f2a0b51-8a20-4529-9aeb-f4632dabee8d/Uploads/13821_ERAT_for%20appendicts.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP359 Third generation of EUS-FNB needles in solid pancreatic lesions: an attempt to define the right number of needle passes for the diagnosis

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Aims Endoscopic ultrasound-guided fine needles biopsy (EUS-FNB) is considered essential for the assessment of solid pancreatic lesions (SPLs) in the current personalized medicine era. Despite the advantages in tissue acquisition due to the newest generation of FNB needles, many aspects still require technical standardization, above all the right number of needle passes to obtain adequate histological characterization and optimal core for molecular analysis due to the newest therapeutic interest for the microsatellite instability in pancreatic ductal adenocarcinoma. In our study we aim to evaluate if less than 3 passes are enough to ensure high rates of confirmed histological diagnosis with the newest generation of FNB cutting needles.

Methods Patients with SPLs requiring tissue sampling through EUS were retrospectively enrolled in our study, since a new 22G needle with asymmetric three-prong tip has been introduced in our center, between September 2022 and September 2023. Tissue sampling was performed using the slow-pull technique and fanning when possible. The number of needle passes was determined by the macroscopic onsite evaluation (MOSE) and samples, coming from different passes, were divided into different test tubes. Our evaluation included diagnostic accuracy, positive core procurement yield and sample quality considering each test tube separetely.

Results 79 lesions (of which 73 % pancreatic ductal adenocarcinoma) were sampled with an average size of 32 mm (SD = 11mm). Sampling was performed with 2 or 3 passes, according to MOSE. Regarding the first needle pass, diagnostic accuracy was 92.41 % which reached 94.94 % considering the second pass (75 confirmed histological diagnosis) and it was not influenced by the third pass. Sample adequacy reached approximately 99 % and positive core procurement and tissue quality were > 95 % in all test tubes. In all histologically confirmed pancreatic adenocarcinomas, the material obtained through 2 needle passes, was sufficient for the assessment of immunohistochemistry for mismatch repair proteins. No major adverse events were registered.

Conclusions In patients with SPLs, the newest generation of histology needles for EUS-FNB could ensure a high diagnostic accuracy for both histological and molecular characterization with two needle passes, becoming extremely relevant in terms of time-saving, cost-effectiveness and safety, especially in high volume centers. Due to the limited number of patients additional data are needed.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP360 ChatGPT4 Vision – Can it do endoscopy?

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DOI 10.1055/s-0044-1783649

Aims ChatGPT4 is the one of the most successful and most wide known large language artificial intelligence models (LLM) available today. Until September 2023, it only accepted text prompts. Now, it has the ability to interpret pictures and give a text description of them. In this work, we tested the model on various upper and lower endoscopic images.

Methods We uploaded 10 anonymized images each of anatomical sites without any visible pathology including esophagus, stomach, pylorus, duodenum, ileum and colon, respectively, and asked ChatGPT4 "What do you see?". Furthermore, we uploaded 10 endoscopic images each of pathologies, including varices (8 gastric and 2 fundus), gastric ulcers, colon polyps, colon cancer and colonic diverticula, respectively, and again used "What do you see?" as the prompt. We rated first whether the model recognized that it was a picture from

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an endoscopy and secondly, whether it could identify the correct anatomical site or the pathology.

Results Chat-GPT4 Vision recognized 109 of 110 images as endoscopic images. For the anatomical sites, the model correctly identified esophagus 7/10, stomach 1/10, pylorus 2/10, duodenum 0/10, ileum 1/10, and colon 1/10. For the pathologies, the model identified correctly 0/10 varices, 3/10 gastric ulcers, 9/10 colon polyps, 1/10 colon cancer and 1/10 colonic diverticula.

Conclusions While Chat-GPT4 Vision showed some impressive results in colonoscopy images in this small study and could readily identify 90 % of the pictures with polyps, it currently lacks the ability to interpret GI endoscopic sites and other pathologies. LLM may need domain-specific training to solve endoscopy-specific tasks.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP361 The role of prophylactic octreotide in preventing ERCP induced pancreatitis

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DOI 10.1055/s-0044-1783650

Aims Octreotide is a synthetic somatostatin analogue with a longer half-life. Similarto somatostatin, octreotide is a potent inhibitor of pancreatic enzyme secretion and effect on thecontractility of sphincter of Oddi.

Methods The present is a Double Blinded Randomised Control Study which was carried out in the Department of Gastroenterology and a total of 75 patients were taken which were divided into 2groups as Control (N = 35) and Study group (N = 40).

2 ml of normal saline and octreotide were given according to respective groups subcutaneously 1hour before procedure followed by 6 hour and 12 hours after ERCP and Serum Amylase and Lipasewere measured along with clinical features. The following protocol was followed based on previousstudies.

Results The overall mean age of the study population including study and control group was 52years. Most common Indications for ERCP was Choledocholithiasis (50 %) followed by malignantcause (30 %), Benign Biliary Stricture (10-15 %). Clinical and ERCP related risk factors according toESGE Guidelines were present in nearly 50-60 %.Hyperamylasemia was present in Study group in 19 patients (47.5 %) and amongst Control group in16 patients (45.7 %).Incidence of Post ERCP Pancreatitis was present in only 5 % in study group and 11.4 % in controlgroup though statistically it was not significant (p = 0.47)

Conclusions Though, there is decrease in the incidence of Post ERCP pancreatitis in the groupreceiving octreotide, the same was not statistically significant as compared with the control (5 % vs11.4 %).

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP362 Massive continuous irrigation/soaking(MCIS) combined with endoscopic debridement an effective treatment for refractory abscess-fistula complexes

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Aims To evaluate the feasibility, safety, and efficacy of massive continuous irrigation combined with endoscopic debridement for the treatment of refractory abscess-fistula complexes.

Methods Massive saline was used to continuously irrigate abscess cavity. The volume of irrigation (normal saline) needs to be over 10000ml/24h at the beginning of irrigation. An outflow tube continues to drain. Then an endoscope entered the chest/abdominal abscess cavity for debridement. This was a retrospective single center observational study, with data collected from 13 consecutive patients. The treatment success rate (abscess healing and fistula closure), size of abscesses, previous history of treatment time, volume of irrigation, time under irrigation treatment, intra-treatment and post-treatment complications were analyzed.

Results Thirteen patients with refractory abscess-fistula complexes were treated. The technical and clinical success rates were 100 %. Five patients had chest abscesses, five patients had abdominal abscesses, two patients had a retroperitoneal abscess, and one patient had an appendix abscess. All enrolled patients had previous history of treatment for their abscesses. The median volume of irrigation was 10000ml/24h. The median irrigation time was 15 days; the median time to fistula close was 17 days. In all the 13 patients abscess healed, and fistulas closed successfully. No complications occurred either during or after the procedure. During the median 26.5 months of follow-up, no adverse event was noted.

Conclusions Massive continuous irrigation combined with endoscopic debridement is a feasible, safe, and effective alternative approach for the treatment of refractory abscess-fistula complexes.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP363 Endoscopic management of rectal neuroendocrine tumors in a Spanish tertiary hospital

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Aims Rectal neuroendocrine tumors (r-NETs) are rare, although their incidence is increasing [1]. 90 % of r-NETs are well differentiated (G1) and < 10 mm [2]. The treatment of choice is endoscopic resection in r-NET < 10 mm and surgical treatment in those > 20 mm. The r-NETs ≤ 10 mm can be resected by endoscopic mucosal resection (EMR). The modified EMR with ligation device (L-EMR) is the technique of choice for higher rates of complete resection (R0) [2]. Endoscopic submucosal dissection (ESD) is considered the most appropriate technique for those > 10 mm [2]. There is no consensus on subsequent follow-up. In low-grade r-NETs < 10 mm and R0, the risk of recurrence is low and endoscopic revision could be avoided [3]. In this study we perform a descriptive analysis of endoscopically removed r-NETs in our center.

Methods A unicentric retrospective study was performed. Endoscopically removed r-NETs between 2017 and 2023 were included. The resection technique was at the discretion of the endoscopist. Those r-NETs that required surgical treatment were excluded. Patient demographics, r-NET characteristics, resection technique, in bloc resection (R0), subsequent complications and recurrence rates were collected.

Results 16 lesions were included, the characteristics are described in Table 1. The mean size was 8.94 mm (+ /- 5.6) and 12 (75.0 %) were G1. The resection techniques were: 8 L-EMR (50.0 %), 3 EMR (18.7 %), 3 hybrid resection (18.7 %) and 2 ESD (12.5 %). In 14 (87.5 %) R0 was obtained. No significant differences were observed between techniques and R0 (p 0.25). 7 r-NET (43.75 %) had submucosal invasion (sm1). The mean size of the sm1 subgroup was 12.43 mm (+ /- 5.63). Of the sm1, 2 were resected by ESD (28.57 %), 3 hybrid technique (42.86 %) and 2 EMR (28.57 %). None of the r-NETs resected by L-EMR presented sm1 versus 100 % resected by ESD (p 0.04).

There were 3 complications (18.75 %), all of them bleeding (100 %). ESD presented higher bleeding rates compared to the other techniques (p 0.01).

In 9 patients (56.25 %) a revision colonoscopy was performed, none of them presented recurrence.

Conclusions Frequently, r-NETs are G1 and < 10 mm. In these cases, the risk of recurrence appears to be low, although further studies are needed to confirm these data. Size appears to be a predictor of sm1 and should guide the resection technique election.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP364 The impact of two- vs. four-hands endoscopy techniques on post-colonoscopy colorectal cancer deaths in Austria

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Aims Prior research has established that the choice of colonic intubation technique influences the quality of screening colonoscopies. Two commonly used techniques encompass single-handed gear control (referred to as 'two-hands') and the assistance of an endoscopy nurse (referred to as 'four-hands'). However, the impact of these colonic intubation techniques on post-colonoscopy colorectal cancer (PCCRC) deaths in Austria has not been investigated yet.

Methods We integrated data from the Austrian Quality Assurance Program with records from the Austrian death registry to acquire details regarding PCCRC death. To evaluate the cumulative incidence of PCCRC death, we performed a survival analysis where we analyzed competing risks by classifying patient outcomes as 0 (not dead), 1 (death due to colorectal cancer) and 2 (death for other reasons). Further, we conducted a sensitivity analysis.

Results A total of 165,588 screening colonoscopies between 01/2007 and 12/2020 were examined, among which 66,775 were performed using the two-hands technique. Results showed that the cumulative incidence of PCCRC-related death among the four-hands technique was 0.18 % (95 % CI, 0.14-0.21) at five years and 0.37 % (95 % CI, 0.3-0.44) at ten years. Whereas in the group where endoscopists use the two-hands technique, the cumulative incidence of PCCRC-related death was notably lower with 0.13 % (95 % CI, 0.1 – 0.17) after five years and a 0.26 % (95 % CI, 0.2- 0.33) after ten years.

Conclusions The group of endoscopists utilizing the four-hands technique exhibited a higher cumulative incidence of PCCRC death than those using the two-hands technique.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP365 Management of patients with pancreas divisum requiring endoscopic treatment – a single center experience

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Aims Pancreas divisum (PD) is the most common congenital pancreatic ductal variant and can be present in approximately 10 % of the population. It can be associated with pancreatobiliary-type pain and recurrent acute pancreatitis (AP), which may present as an indication for endoscopic treatment by endoscopic retrograde cholangiopancreatography (ERCP), sphincterotomy (EST) and/or pancreatic duct stenting. We aim to demonstrate our experience in the management of symptomatic patients with PD.

Methods All consecutive patients with PD who underwent ERCP during a half-year period (01. 10.2022-10.03.2023) at our tertiary care center were included. Demographic data, indications, procedural interventions, and findings, as well as available data of clinical outcome were analyzed.

Results Overall 5 patients with PD underwent ERCP during the study period. Mean age was 22.4 years (standard deviation (SD) ± 17.1). Three of them were referred from pediatric departments. In terms of gender 4 patients were male and 1 patient was female. Indications were recurrent AP in all patients and in addition, signs of disconnected duct syndrome were seen in two cases. PD was unknown before ERCP in one patient. Failure to cannulate the minor papilla occurred in one individual, however pancreatic EST of the major papilla was successfully performed. Cannulation of the minor papilla without precut EST was successful in one patient. Procedure related complications emerged in two cases, one case of mild post-ERCP pancreatitis and one case of self-limiting post-EST related bleeding. Four patients have been controlled at follow-up visits. Average follow-up time was 77 days (SD ± 31.9). During that period 2 patients were presented with self-limiting mild AP which were successfully treated conservatively. One was associated with pancreatic stent dislodgement and AP resolved quickly after stent extraction. All patients (including the two with AP relapse) have become pain-free and their general condition has improved. The first follow-up visit for the one remaining patient is already scheduled.

Conclusions Though limited by low number of patients, our study demonstrates clinically significant domestic experience in the endoscopic treatment of patients with PD during a half-year period. Our results show good technical and clinical success rates with low adverse event rates. Nevertheless, performing ERCP in patients with PD should always be based on careful individual evaluation of clinical presentation due to potentially high risk of complications.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP366 Colonic interposition graft and risk of adenomatous polyp. Do we need screening?

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Aims Esophageal colonic interposition graft is a common surgical technique used for benign and malignant indications. The development of polyps and colonic carcinomas within grafts used for esophageal reconstruction is a rare event and there is a lack of data in regard of surveillance. Our aim is to present a case who developed polyps many years after the surgical procedure.

Methods We present a case of a 58-year-old male, who underwent total esophagectomy and subsequent colonic interposition 38 years ago for a benign esophageal stricture. Over the years, he developed severe pulmonary fibrosis due to chronic colonic graft reflux, leading to the need for percutaneous endoscopic jejunostomy tube insertion in order to avoid oral feeding. During this procedure, two polyps were seen in the colonic graft.

Results The initial endoscopy revealed two polyps within the interposition graft, 10 mm and 4 mm in size respectively, located 50 and 48 cm from the incisors. Despite the identification of these polyps, no polypectomy was performed at that time because of informed consent refusal. In a subsequent endoscopy realized two years later due to concern about, the two polyps were found to slightly increased in size, 12 mm, and 5 mm respectively. After obtaining the informed consent, polypectomy was performed for both polyps, EMR for the big one, and cold snare resection for the other. Histopathologic evaluation revealed tubular adenoma with high-grade dysplasia and tubular adenoma with low-grade dysplasia respectively. [1–3]

Conclusions Adenomatous polyps along with adenocarcinoma present a potential risk for colonic interposition. Colon cancer screening of graft is recommended for this group of patients guided by existing polyp surveillance guidelines and the importance of surveillance should not be underestimated.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP367 Prevalence of local recurrence following resection of esophagogastric neoplasia: analysis of factors related to endoscopic diagnosis

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Aims The endoscopic follow-up after resection of esophagogastric neoplasms (EGN) lacks consensus due to the uncertain prevalence of local recurrence and its associated factors. The common recommendations include gastroscopy for subtotal gastrectomy cases and esophageal examination only when symptoms are present.

This study aims to determine the prevalence of recurrence post-resection and assess factors related to local recurrence in EGN.

Methods Observational, retrospective, experienced single-center study for the assessment of post-resection recurrence of EGN. Patients from the esophagogastric tumor registry who underwent surgical resection and endoscopic follow-up during the period (2013-2023) were included. Demographic characteristics and factors related to neoplastic disease were recorded. The prevalence of recurrence, radiological and endoscopic findings during follow-up were evaluated.

Results A total of 111 patients out of 122 with surgically resected EGN were included. Of these, 15.3 % were esophageal, 9.9 % esophagogastric junction, and 74.8 % gastric. R0 resection was considered in 81.8 % of patients, with the most frequent staging being T3 (40.4 %) and N0 (63.2 %). 68.5 % received systemic treatment. Thirty-five recurrences occurred (31.5 %), of which 5 (14.3 %) were local and 22 (68.6 %) were disseminated. Local recurrences occurred at a mean follow-up of 25.2 months (IQR 7.5-48.5). Only 1 of the cases of local recurrence was diagnosed by follow-up endoscopy. None of the analyzed factors (gastric metaplasia, type of surgery, staging, symptoms) were significantly associated with local recurrence.

Conclusions Local recurrence after resection of EGN is infrequent, and no factors have been found to be significantly related to it. These findings could be considered for recommendations regarding endoscopic follow-up after the resection of EGN.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP368 Percutaneous liver biopsy – Tru-cut vs Menghini needle, the experience of a referral service

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Aims Liver histology remains the gold standard in the diagnosis and staging of liver pathology. The present study evaluated the role of percutaneous hepatic biology in the clinical practice of a Gastroenterology referral Service, with the main objective of retrospectively comparing the two available techniques (Tru-cut 16/18G vs Menghini). The frequency, sample size, diagnostic accuracy and safety profile of the procedures were evaluated.

Methods Included all percutaneous liver biopsies with ultrasound support between 01-01-2011 and 03-08-2023 in a referral Service.

Results Included 267 patients (53.9 % female), with a mean age of 56.2 (+ /- 15.2 standard deviation). The main indication was elevations in liver tests (43.1 %), followed by liver nodules (16.5 %) and suspicion of autoimmune hepatitis (9.4 %). The diagnostic accuracy was 69.7 %, the main one being unclassified steatohepatitis (22.5 %), followed by neoplasms (19.9 %) and autoimmune hepatitis (5.6 %). Most of the procedures were carried out in an outpatient setting and only 18 % on hospitalized patients.

Complications were observed in 11.2 % of the procedures (pain – 42 %), 1.5 % considered severe, demanding hospitalization (hepatic hematoma with hemoperitoneum).

A Menghini needle was used in 106 biopsies, obtaining an average of 1.9 fragments, 28.2 mm long, including 15.3 portal spaces, in 1.17 passages, with 81 % diagnostic accuracy and 9.5 % of complications. A total of 116 biopsies were performed with a Tru-Cut needle (38 with 16G, 78 with 18G), obtaining an average of 1.7 fragments, 17.6mm long, including 9.4 portal spaces, in 1.4 passages. , with 66.5 % diagnostic accuracy and 9.4 % complications, with a statistically significant difference for the number of passages ($p = 0.004$), number of portal spaces ($p < 0.001$), and length of the fragments obtained ($p < 0.001$). [1]

Conclusions Percutaneous liver biopsy showed similar diagnostic accuracy and safety regardless of the used needle. Menghini needles made it possible to collect larger fragments with more portal spaces, being associated with a smaller number of passages. However, due to the better experience and comfort we use Tru-Cut needle in our Service.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP369 Performing routine duodenal biopsies to diagnose Celiac Disease: is there any value?

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Aims Duodenal biopsies are routinely performed on all patients exhibiting symptoms suggestive of Celiac Disease (CD). The aim of our study is to evaluate the diagnostic yield of systematic duodenal biopsies in patients showing clinical manifestations suggestive of CD.

Methods This is a single-center study conducted over a period of 2 years, involving patients who underwent upper digestive endoscopy with duodenal biopsies. Clinical presentations were classified as either high-risk or low-risk for celiac disease. High-risk presentations included iron-deficiency anemia and diarrhea. Other indications were categorized as low-risk (dyspepsia, ulcer-type epigastric pain, and atypical epigastric pain).

Results We included 190 predominantly female patients (70 %). The mean age was 41 years [10-83 years]. The primary indications for endoscopy were iron-deficiency anemia in 59.5 % of cases and chronic diarrhea in 24.2 % of cases. Endoscopically, 55 patients (29 %) showed features suggestive of celiac disease: reduced duodenal fold height in 46 patients (24.2 %), nodular mucosa in 6 patients, and a mosaic appearance in 3 patients. Histologically, among the 126 patients with normal duodenal mucosa, 5 patients (3 %) presented histological

abnormalities: villous atrophy in 2 patients and focal elevation of intraepithelial lymphocytes in 3 patients. Among the 46 patients with reduced duodenal fold height on endoscopy, only 41 % had histological abnormalities: villous atrophy (N = 12) and elevated intraepithelial lymphocytes (N = 7). Among the 6 patients with nodular appearance, 2 patients had histological abnormalities: partial villous atrophy and active duodenitis without specific signs. All patients with a mosaic appearance had a histological alteration: polymorphic inflammatory infiltration suggestive of nonspecific duodenitis. The diagnosis of celiac disease was established in 12 patients (6.3 %), of whom two had a normal endoscopic appearance. No patient with low-risk symptoms and a normal endoscopic appearance was diagnosed with celiac disease.

In multivariate analysis, only reduced duodenal fold height on endoscopy was correlated with the diagnosis of celiac disease (CI = 95 %, p = 0.0001).

Conclusions Our study supports recommendations for systematic duodenal biopsies in patients with high-risk clinical or biological presentations for celiac disease. We also suggest that biopsies should be performed in patients with low-risk symptoms who exhibit endoscopic markers of CD.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP370 Development of novel training for magnet-assisted capsule endoscopy (MACE) using cumulative sum analysis

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Aims Magnet-assisted capsule endoscopy (MACE) is a novel, non-invasive alternative to upper gastrointestinal endoscopy for the diagnosis of gastric diseases. Operating the MACE system requires a different skillset from conventional endoscopy. However, dedicated training for MACE has not yet been developed. We established a training programme in which novices developed their MACE skills on ex-vivo models prior to examining human subjects. The learning curve was evaluated, and competencies were established using CUSUM analysis.

Methods Two ex-vivo models were developed and used to train participants in MACE. Ex-vivo exercise 1: the four points of a compass were drawn on a flat surface, each 7.5cm from the centre point. The novice was required to use the two joysticks and magnet robot to move the capsule from, and returning to, the centre to each point in sequence, passing through the centre each time within one minute. Ex-vivo exercise 2: novices were required to identify numbers (1-8), on the inside of a water-filled, opaque, plastic gastric model within four minutes. The learning curve of trainees was evaluated, and competency was defined using CUSUM analysis. CUSUM values were calculated from a mixture of increments which rise with each failed attempt and decrements which fall with each successful attempt. Competence was declared when the CUSUM curve crossed two consecutive boundary lines. Having become competent at these exercises, trainees performed examinations in human subjects. This was done in a standard fashion [1] in which they were required to save distant and close images of each gastric landmark.

Results Six trainees (median age 27 years, 83.3 % male) completed the ex-vivo training. Half the trainees did not have previous endoscopy experience. The number of attempts to gain competency varied between trainees, ranging from 53 to 171 in exercise 1 and 44 to 74 in exercise 2. Overall, the trainees required a median of 70.5 attempts (IQR 53.7 – 116.3) over a median of 72 minutes (IQR 39.3 – 115) to achieve competency in exercise 1. Achieving competency in exercise 2 required fewer attempts, with a median of 47.5 attempts (IQR 41.2 – 64.2), but a longer time, with a median of 150.9 minutes (IQR 110.9 – 214.2). Data regarding examinations in human subjects were obtained from 22 trainees (median age 33 years, 9 % male) who completed the same ex-vivo training programme, of whom 59 % did not have previous endoscopy experience. All trainees successfully completed 8 – 12 examinations on human subjects with median time ranging between 28 – 35 minutes.

Conclusions All trainees who completed the ex-vivo training exercises demonstrated competence in examining human subjects. Competency in performing MACE can be achieved much more quickly than in conventional endoscopy. CUSUM analysis could be used to guide progress in training and clinical practice as part of a quality assurance programme.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP371 Morphology of the papilla can predict procedural safety and efficacy of ERCP – a retrospective cohort study

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Aims Endoscopic Retrograde Cholangiopancreatography (ERCP) is the most commonly used therapeutic procedure for pancreaticobiliary disorders. Despite the essential role of bile duct cannulation in procedural safety and success, research on this topic is still limited. Certain studies suggest that the anatomy of the papilla affects its efficacy and safety. We aimed to assess the influence of papilla morphology on ERCP outcomes and adverse events.

Methods Patients with a naive papilla scheduled for ERCP were reviewed in a single tertiary care center between September 2022 and January 2023. The papilla was classified into one of four types using the Haralddson classification system. Data on the presence of a periampullary diverticulum (PAD) was also assessed. The indications for ERCP, the rate of post-ERCP adverse events (pancreatitis, bleeding, and perforation), the rate of failed cannulation, and the need and type for rescue cannulations were collected. For the effect size measure, event rates or risk ratios were calculated. For categorical data, the $\chi 2$ test, and for the test of subgroup (papilla type) differences, a "Cochrane Q" test was used.

Results A total of 231 patients with naive papillae were included. We found a statistically significant difference in the event rate for cannulation failure between the different papilla types. The highest rate was observed in the case of type II („small") papilla (14 %), followed by type I („regular") (13 %) and type III („protruding or bulging") (8 %). The event rate was lowest in the case of type IV („creased or ridged") papilla (6 %). The presence of PAD was associated with a higher risk of cannulation failure (RR: 2.64; CI: 1.22 – 5.39).Moreover, a statistically significant difference in the rate of post-ERCP pancreatitis (PEP) was observed between the papilla types. The event rate was the highest in type III („protruding or bulging") and IV („creased or ridged") papilla (13 %). The lowest rate was observed in type I („regular") and II („small") papillae, 6 %. There was no significant difference between the post-ERCP bleeding and perforation rate in the different papilla types, likely the result of the low number of events. The need for and the kinds of rescue cannulation techniques also significantly differed between the papilla types.

Conclusions Certain papilla morphologies are associated with a higher rate of cannulation failure and PEP. The presence of PAD is also associated with an increased rate of cannulation failure. Moreover, the preferred rescue cannulation technique differs between the papilla types.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP372 Another use of Spybite: A tool for migrated stent retrieval. A case series

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Aims Stent migration is a late adverse event of stent placement in ERCP. Depending on the stent type, migration might occur distally (5-10 %) or proximally (< 5 %) and is associated with a diverse array of adverse events. In this case series, we report our experience on endoscopic extraction of two proximally migrated stents and a silicon catheter with Spybite biopsy forceps (Boston Scientific), under single-operator direct cholangioscopy (Spyglass – Boston Scientific).

Methods A single expert endoscopist performed ERCP and retrieval using a duodenoscope with Spyglass and Spybite.

Results This case series includes 3 patients who had proximal stent/catheter migration and the successful removal of the stents using Spybite forceps. The first patient, a 65 years old male, with choledocholithiasis, had undergone an ERCP procedure with a plastic biliary stent placement as a preventive measure after multiple stone extraction. During the re-evaluation of the patient for stent extraction, proximal stent migration was noted. The retrieval of the stent was accomplished successfully with Spyglass and Spybite. The second patient, a 35 years old female, was refereed to our clinic with complete common bile duct dissection during a laparoscopic cholecystectomy. During the procedure the main pancreatic duct was catheterized and a pancreatic stent placed as a preventive measure against acute pancreatitis. On patient re-evaluation, proximal migration of the stent was noted. Several unsuccessful attempts were made to retrieve the stent using different techniques (double stent technique, biopsy forceps, biliary stone retraction balloon, biliary dilation balloon). The retrieval of the stent was accomplished again successfully with direct cholangioscopy and Spybite. The third patient, 73 years old male, was also refereed to our clinic with complete common bile duct dissection that occurred during a laparoscopic cholecystectomy. The surgery was converted to open and the surgical team inserted a silicon catheter through the cystic and common bile ducts up to duodenum to facilitate ERCP cannulation of the ampulla of Vater. During ERCP the catheter was not detected in the duodenum and neither on the X-ray, due to its radiolucency. Spyglass was then used to remove the catheter using Spybite forceps. SpyBasket and the SpySnare were not available in our department at that time. All patients underwent successful stent removal as described without immediate adverse events, or other adverse events after 4 weeks of follow-up. [1]

Conclusions SpyBite biopsy forceps used by single-operator cholangioscopy can still be a useful tool to remove migrated plastic stents and foreign bodies/catheters from the biliary and pancreatic ducts.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP373 Gastric Neuroendocrine Tumors: 5 years of activity at a referral Hospital

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Aims The frequency of gastric neuroendocrine tumors (gNET) is increasing, as a result of the massification of upper digestive endoscopy. Given their particularities, they are still poorly understood and difficult to manage.

Methods Retrospective study that included patients diagnosed with NETg in a Hospital between January 2018 and December 2022.

Results Included 21 patients (52.4 % female), with an average age at diagnosis of 64 years (+ /- standard deviation 15.5). They were classified as NETg type 1 (71.4 %), type 2 (4.8 %), type (39.5 %), small cell neuroendocrine cell carcinomas (4.8 %) and large cell carcinomas (9.5 %). In staging, endoscopic ultrasound was used in 19 %, CT scan in 52.4 % and DOTANOC PET in 47.6 %. Two of the patients with type 1 NETg with lesions bigger than 15mm underwent endoscopic submucosal resection and one with serosal infiltration underwent total gastrectomy, presenting recurrence with liver metastasis at 3 years. The remainder were treated with polypectomy. The only death was recorded in a grade 2 NETg, without staging, 21 months after diagnosis. The patient with type 2 NETg underwent total gastrectomy, with a 5-year survival rate of 100 %. All patients with Netg type 3 were treated with subtotal gastrectomy, with a 1-year survival rate of 100 %. All type 4 gastric carcinoid had metastasis by the time of diagnosis, with a survival rate of 0 % at 6 months. [1–3]

Conclusions NETg require individualized treatment, in order to avoid futile aggressive or overly conservative therapies. In our studied population, in light of the most recent guidelines, the poor staging of NETg1 stands out, with limited use of endoscopic ultrasound, and the excessive use of polypectomy in the follow-up of NETg1 lesser than 1cm.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP374 Do Fib-4 and APRI have predictive value for identifying esophageal varices in cirrhotic patients?

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Aims According to the Baveno VII consensus, individuals with compensated advanced chronic liver disease, characterized by a liver stiffness < 20 kPa and a platelet count > 150,000/mm3, are deemed to have a minimal risk of developing esophageal varices.These patients may potentially avoid screening endoscopy.Transient elastography(FibroScan)is acknowledged as the most promising noninvasive technique for assessing portal hypertension in chronic liver disease. However,its limited accessibility in lower-middle-income countries is predominantly attributed to its high cost.In this retrospective study,we compared the diagnostic performance of Fib-4 Index and APRI indices in predicting the presence of esophageal varices, with the aim of evaluating their effectiveness in ruling out patients with high-risk varices.

Methods Out of 243 cirrhotic patients under our department's care from January 2016 to June 2023, 100 patients with compensated cirrhosis(42 %)were categorized into two groups,with or without esophageal varices.The diagnostic accuracy of serum fibrosis indices, including sensitivity,specificity,positive predictive value(PPV),negative predictive value(NPV),and overall accuracy,was assessed using the area under the receiver operating characteristic curves.All statistical analyses were conducted using SPSS 23.0.

Results Among the patients, 14 did not exhibit esophageal varices, while 86 had esophageal varices, categorized as 47 mild, 34 moderate, and 5 severe cases. In the ROC curve analysis for esophageal varices, the AUC values for FIB-

4 and APRI were 0.384 and 0.343, respectively. The optimal cutoff point for FIB-4 in predicting cirrhosis along with esophageal varices was determined as 4.150, with corresponding sensitivity and specificity values of 58.1 % and 28.6 %, respectively. Conversely, the optimal cutoff point for APRI in predicting cirrhosis along with esophageal varices was found to be 0.950, with corresponding sensitivity and specificity values of 60.5 % and 28.6 %, respectively.

Conclusions In this study, the optimal FIB-4 and APRI cutoff values were determined to be 4.150 and 0.950, respectively, offering the highest diagnostic accuracy for predicting the presence of esophageal varices. Notably, these cutoff values exhibited high sensitivity but low specificity.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP375 Colonoscopy in the elderly : risks versus benefits compared with younger patients

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Aims Chronic constipation remains a prevalent reason for consultation in Gastroenterology. It affects approximately 25 % of the general population and may reveal an underlying organic or functional pathology. Our study aims to determine the frequency of lesions diagnosed through colonoscopy and the factors associated with pathological colonoscopy concerning age.

Methods This retrospective comparative study collected data from all patients who underwent colonoscopy for exploring chronic constipation over a four-year period. Patients underwent a PEG-based bowel preparation and followed a residue-free diet. They were divided into two groups: G1, aged less than 50 years, and G2, aged over 50 years. Epidemiological, clinical, and endoscopic data were compared between the two groups using SPSS 20.0 software, with significance set at $p < 0.05$.

Results A total of 1000 colonoscopies were conducted between January 2019 and August 2023, with 308 performed for chronic constipation. The mean patient age was 49 years, ranging from 17 to 81 years, with a male-to-female ratio of 1.36 (57.8 % men and 42.2 % women). Group 1 comprised 66 patients (21.4 %), while Group 2 had 242 patients (78.6 %).

Constipation was associated with subocclusive syndrome (29.9 % – 15.2 % vs. 33.9 %), nonspecific abdominal pain (32.5 % – 45.5 % vs. 28.9 %), abdominal bloating (42.2 % – 33.3 % vs. 44.6 %), alternating diarrhea-constipation (16.2 % – 18.2 % vs. 15.7 %), rectal bleeding (16.2 % – 15.2 % vs. 16.5 %), melena (1.9 % – 0 % vs. 2.5 %), and general health deterioration (8.4 % – 12.1 % vs. 7.4 %).

Suspicious thickening on abdominal CT scan was found in 7.1 %: G1 – 3 % vs. G2 – 8.2 %. Inadequate preparation was noted in 15.2 % (n = 5) in Group G1 and 24 % (n = 29) in Group G2. Colonoscopy was normal in 44.2 % (75.8 % vs. 35.5 %) and pathological in 47.4 % (21.2 % vs. 54.5 %).

Endoscopic findings included colonic polyps (23.4 % – 12.1 % vs. 26.4 %), rectal polyps (8.4 % – 0 vs. 10.7 %), colonic diverticulosis (17.5 % – 12.1 % vs. 19 %), colorectal neoplasia (9.7 % – 3 % vs. 11.6 %), lipoma (4.5 % – 0 % vs. 5.8 %), and angiodysplasia (1.3 % – 0 % vs. 1.7 %).

Factors associated with pathological colonoscopy for constipation were age over 50 years ($p < 0.001$), gender ($p = 0.01$), subocclusive syndrome ($p = 0.01$), and general health deterioration ($p = 0.029$). Neither rectal bleeding, anemia, abdominal pain, alternating diarrhea-constipation, nor colonic thickening on abdominal CT scan were considered risk factors for pathological colonoscopy.

Conclusions Our study indicates that age over 50, male gender, subocclusive syndrome, and patient-reported general health deterioration are associated with pathological colonoscopy. Among subjects under 50 years old, 21.4 % had pathological colonoscopy, with colorectal neoplasia observed in 3 %.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP376 EUS-guided pancreatic duct drainage: endoscopic and clinical practice experience

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Aims EUS-guided pancreatic duct drainage (EUSPDD) is an endoscopic procedure which is indicated in symptomatic patients with evidence of pancreatic duct obstruction after failure of transpapillary drainage or impossibility to perform EWSL in the contest of chronic pancreatitis or altered anatomy causes (e.g. Whipple or Roux-en-Y surgery). Nowadays, it is a challenging procedure performed by few endoscopist. Clinical and technical success rate is still lacking and heterogenous, therefore acquisition of new data and experience is necessary.

Methods This is a retrospective observational single-center study including patients undergone EUSPDD from March 2018 to July 2023 using plastic stent (7Fr 10cm), delivered with an electrocautery-enhanced catheter, after transpapillary drainage failure. Also, it was evaluated exocrine pancreatic function by fecal elastase (FE-1) and nutritional markers (prealbumin and magnesium).

Results Total of 15 patients (M:F = 11:4) with median age of 72 years old. 13 patients (86.6 %) had a chronic pancreatitis diagnosis with radiological evidence of duct pancreatic alterations (5 stenosis, 3 lithiasis, 4 both, 1 duct rupture); 2 patients had a post-surgical stenosis. All patients were symptomatic: 6 patients (40 %) shows multiple episodes of acute pancreatitis and 9 (60 %) had abdominal pain non responder to medical therapy. Pancreatic duct had median dilatation of 7 mm (4-15.6 mm). Every transmural access was performed through gastric wall with single plastic stent (7Fr 10cm) placement. Technical success was obtained in 11 patients (73 %), 2 patients (13.3 %) had early stent migration and in 4 patients (26.6 %) EUSPDD was failed. No other adverse events. 13 patients (86.6 %) had a condition of pancreatic exocrine insufficiency with FE-1 < 200 µg/g in 8 patients and < 100 µg/g in 5 patients under pancreatic enzyme replacement therapy. Magnesium median value was 0.74 mmol/L (0.5-0.8 mmol/L) and prealbumin median value was 0.22 g/L (0.11-0.26 g/L), both at the low normal serum level. During clinical follow up (after 4 months from EUSPDD), patients had no pain, improvement of general quality of life and nutritional markers.

Conclusions EUSPDD still remain a challenging endoscopic procedure indicated only for selected cases and performed by expert endoscopist. However, EUSPDD seems to have a reasonable clinical success rate but we need further data to improve endoscopic experience and clinical awareness.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP377 Kissing-suture and massive continuous peritoneal irrigation for treating a rare gastric antrum uncontained leak

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Abstract Text A 69-year-old woman presented with significantly abdominal pain after endoscopy submucosal dissection for 4 days. A large defect was found in the wound of ESD. First, endoscopy was introduced into peritoneal cavity from the defect, and fully flushed whole peritoneal cavity with normal saline. Then, successful closure of the defect was achieved using a kissing-suture technique. We then performed double percutaneous abdominal puncture catheter insertion, locating at the left and right lower abdomen respectively. One catheter was used for irrigating normal saline, whereas the other was connected to the drainage bag which could form an efficient circulation pathway to achieve continuous peritoneal irrigation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP378 Jejunal lipoma complicated with small bowel bleeding

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Abstract Text We present a 53-year-old man with melena for 3-4 days. Gastroscopy and colonoscopy did not found any alterations and endoscopic capsule showed in the proximal jejunum an ulcerated submucosal lesion of 15-20 mm. A push enteroscopy with colonoscope was performed, identifying in the proximal jejunum a 20 mm nodular lesion with a fibrinous ulcer with yellowish borders (which we have denominated as the "inverted fried egg sign"), tattooing its location. General Surgery was contacted and the lesion was resected. The anatomopathological study finally reported an ulcerated lipoma. Small bowel lipomas are generally asymptomatic benign tumors, although when their size is > 2 cm they can cause complications, mainly intussusception and gastrointestinal bleeding due to ulceration/necrosis, complications usually associated with malignant tumors. [1–3]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP379 Factors associated with failure of clearing common bile stones during a first endoscopic retrograde cholangiopancreatography

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Aims Endoscopic retrograde cholangiopancreatography (ERCP) has become the first-line treatment for choledocholithiasis with a success rate of around 90 %. However, difficulties may arise during stone extraction. The aim of this study is to analyze the factors associated with the failure of common bile duct stone (CBD) extraction.

Methods A retrospective analysis of CBD stone patients who underwent ERCP for stone extraction at our center from June 2017 to february 2023 , was conducted. Potential factors affecting CBD clearance were examined.

Results We enrolled 498 patients. The mean age was 61.08 years. The male-to-female ratio was 0.52. Bile duct cannulation was successful in 467 patients (93.7 %). Complete stone removal was achieved in 90.03 % of cases while stone extraction was failed in 9,97 % of patients. In univariate analysis, twelve factors are associated with the failure to achieve clearance of CBD: an age > 65 years ($p = 0.01$), acute cholangitis as clinical presentation ($p = 0.001$), the presence of fever ($p = 0.001$), elevation of total bilirubin ($p = 0.019$), leukocytosis ($p < 0.001$), infected bile ($p = 0.022$), CBD diameter > 15mm ($p < 0.001$), large stone (> 15mm) ($p < 0.001$), a ratio of stone size to CBD diameter > 1 ($p = 0.004$), multiple stones(> 3) ($p = 0.002$), and impacted stones ($p = 0.03$). The use of a balloon catheter, on the other hand, is associated with CBD clearance ($p = 0.042$). In the multivariate analysis, CBD diameter > 15mm ($p = 0.043$) and multiple stones ($p = 0.004$) were found to be significant, independent contributors to failed stone removal. [1–4]

Conclusions Failed endoscopic stone clearance is more likely to occur in patients with multiple CBD stones > 3, and in patients with CBD diameter ≥ 15 mm.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP380 Endoscopic ultrasound-guided fine-needle biopsy is safe and effective for the diagnosis of splenic masses: a retrospective cohort study

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Aims Focal splenic lesions (SLs) are rarely detected in splenic parenchyma but frequentlyrequire pathological analysis. Transabdominal ultrasound or computed tomography (CT)-guidedpercutaneous biopsies represent the standard techniques to obtain splenic samples, howeverendoscopic ultrasound-guided fine needle aspiration (EUS-FNA) has been described as analternative technique. The aim of the study is to assess the safety and efficacy of endoscopic ultrasound-guided fineneedle biopsy (EUS-FNB) in patients with SLs.

Methods Consecutive patients who underwent EUS-FNB for an SL in a single center between january 2017 and january 2023 were retrospectively identified from a prospectively maintained electronic database. Demographic data, EUS lesion features, type of needle utilized, number of passes performed, occurrence of AEs,need for repeat EUS-FNB or for percutaneous or surgical approach, and results of histologicalevaluation were collected in all patients.

Results 30 patients (mean age 62.4 ± 15.28, M/F: 17/13) were enrolled. Sixteen (53.3 %) patients had a single SL with a mean size of 5.5 ± 3.5 cm (range 2-15 cm) (Figure 1a). In the other 14(46.7 %) cases, several multiple sometime confluent splenic lesions were detected. Acquired samples were adequate to reach a definitive diagnosis in all but 2 cases (93.3 %). In 22 patients a lymphoproliferative disease with subtyping was identified, while in the remaining 3 cases of splenic metastasis (from renal cell carcinoma and from hepatocarcinoma), one case of sarcoidosis, one case of splenic infective abscess and one case of hemangiosarcoma were detected. Splenic EUS-FNB presented a sensitivity, specificity, positive predictive value, negative predictive value and accuracy of 93.1 %, 100 %, 100 %, 33.3 %, and 93.3 % respectively. In 4 patients mild abdominal pain occurredafter the procedure, and in one patient post-procedural intra-splenic bleeding occurred. No procedural related deaths were reported.

Conclusions EUS-FNB is an effective and safe technique to obtain diagnostic samples from solidsplenic lesions.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP381 Pancreatic metastases diagnosed by endoscopic ultrasound-guided fine-needle aspiration/biopsy: experience of a tertiary center

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Aims Pancreatic metastases account for 2 % of malignant solid pancreatic lesions. Clinical suspicion based on history of previous neoplasm is essential for diagnosis. Confirmation generally comes through cytological examination and immunocytochemistry tests of specimens obtained by endoscopic ultrasound-guided fine-needle aspiration/biopsy (EUS-FNA/FNB). Existing evidence on this entity is in the form of case series with a limited number of patients. The aim of our study is to evaluate the incidence of pancreatic metastases diagnosed by EUS-FNA/FNB in our centre and characterize their clinicopathological features.

Methods We retrospectively included all patients diagnosed with pancreatic metastases by EUS-FNA/FNB between January 2002 and October 2023. Data collection included primary tumour origin, time elapsed from the diagnosis of the primary tumour, symptoms, number of pancreatic lesions and presence of concomitant metastases in other locations. [1–3]

Results Out of 5,106 EUS-FNA/FNB procedures performed during the study period, pancreatic metastases were diagnosed in 57 patients (1.13 %). Renal cell carcinoma was the most prevalent primary tumour (n = 21; 36.8 %) followed by colorectal cancer (n = 10; 17.5 %), small-cell lung cancer (n = 6, 10.5 %), breast cancer (n = 5; 8.8 %), melanoma (n = 4; 7 %), squamous cell lung carcinoma (n = 2; 3.5 %), lung adenocarcinoma (n = 2; 3.5 %), ovarian serous carcinoma (n = 2; 3.5 %), sarcoma (n = 2; 3.5 %), prostate adenocarcinoma (n = 1; 1.8 %), cervical cancer (n = 1; 1.8) and gastric adenocarcinoma (n = 1; 1.8 %). Pancreatic metastases were generally diagnosed during follow-up imaging in asymptomatic patients (n = 47, 82.4 %). Symptomatic cases had obstructive jaundice (n = 5; 8.8 %), abdominal pain (n = 3; 5.3 %) and acute pancreatitis (n = 2; 3.5 %). Most patients presented with a single pancreatic metastasis (n = 45; 78.9 %). The median time between primary tumour diagnosis and pancreatic metastasis detection was 2.3 years (IQR: 0.5-5.8 years), with renal cell carcinoma exhibiting a longer interval (6 years; [IQR: 2-12.4 years]). Only one patient had synchronous pancreatic metastases at the time of primary tumour diagnosis. Pancreatic metastases were the sole metastatic location in half of the patients (n = 30, 52.6 %), whereas the remaining had concurrent extrapancreatic metastases (n = 27, 47.3 %). EUS-FNA/FNB with cytological examination and immunocytochemistry tests accurately diagnosed all cases (n = 57, 100 %).

Conclusions The pancreas may be a site for metachronous metastatic disease, even long after primary tumour diagnosis. Pancreatic metastases are generally asymptomatic, and the most frequent primary tumour is renal cell carcinoma. EUS-FNA/FNB is essential for diagnostic confirmation. Our observed incidence of pancreatic metastases is in line with what has been previously reported.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP382 Morphology of the papilla can predict procedural safety and efficacy of ERCP – a systematic review and meta-analysis

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Aims Endoscopic Retrograde Cholangiopancreatography (ERCP) is the most used therapeutic procedure for pancreaticobiliary disorders. Still, how to best achieve a safe and effective bile duct cannulation is debated. Studies suggest that the anatomy of the papilla affects its efficacy and safety. We aimed to quantify the influence of papilla morphology on ERCP outcomes.

Methods PROSPERO registration number: CRD42022360894. We systematically searched three medical databases from inception in September 2022. Studies detailing the cannulation or the rate of adverse events in the context of papilla morphology were included. For the primary classification of the major papilla, the Haraldsson system was used, differentiating four morphological types. A pooled event rate with a 95 % confidence interval (CI) was used for the effect size measure. For the test of subgroup differences, a "Cochrane Q" test was used. The risk of bias assessment was performed using the Joanna Briggs Institute Critical Appraisal tool for studies reporting prevalence.

Results A total of 17 studies were eligible, and 14 were included in the quantitative synthesis. In studies using the Haraldsson classification, the rate of difficult cannulation was the lowest in type I ("regular") papilla (26 %; CI: 18–37), followed by type III ("protruding or bulging") (35 %; CI: 25–48) and type II ("small") papilla (39 %; CI: 28–52). The highest rate was observed in the case of type IV ("creased or ridged") papilla (41 %; CI: 28–55). For post-ERCP pancreatitis, the event rate was the highest in type II ("small") papilla (11 %; CI: 8–15) and the lowest in type I ("regular") (6 %; CI: 5–8) and III ("protruding or bulging") papilla (6 %; CI: 4–8). There was no statistically significant difference in the cannulation failure and post-ERCP bleeding event rates between the different papilla types. Most studies carried a low risk of bias.

Conclusions In conclusion, other types are associated with a higher rate of difficult cannulation compared to the regular papilla type. The small papilla is associated with a higher rate of post-ERCP pancreatitis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP383 Endoscopic treatment of difficult biliary stones: retrospective experience of a single italian tertiary centre

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Aims To compare the efficacy of cholangioscopy-guided electrohydraulic lithotripsy (EHL) with traditional lithotripsy techniques as mechanical lithotripsy (ML) and extracorporeal shock wave lithotripsy (ESWL) in the treatment of difficult biliary stones and evaluate the factors related to the failure of traditional lithotripsy.

Methods This is a retrospective, single-center cohort study conducted at the Gastroenterology and Digestive Endoscopy Unit of the USL-IRCCS of Reggio Emilia, Italy. Patients with difficult biliary stones treated with ML/ESWL and/or cholangioscopy-guided EHL, between May 2017 and May 2023 were retrospectively evaluated. All data were analyzed and extracted from the reporting system and the Company Health Record (Data Warehouse). The collected data were expressed as means and standard deviations and compared using

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two-sample t tests for continuous variables. Categorical variables were analyzed using either Pearson's chi-squared test or Fisher's exact test. A p value < 0.05 was considered to be statistically significant. [1–3]

Results 60 patients were included; 30 patients were treated with traditional lithotripsy (24 ML, 6 ESWL), 30 were treated with EHL: of this 14 performed electrohydraulic lithotripsy after at least one failed attempt at traditional lithotripsy and were considered also as failures of traditional lithotripsy. Cholangioscopy-guided EHL had a significantly higher success rate than traditional lithotripsy (90 % vs 63 %, p = 0.01; 27/30 patients successfully treated with EHL compared to 28/44 for traditional lithotripsy). A sub-analysis was performed on patients undergoing traditional lithotripsy (28 patients successfully treated compared to 16 patients unsuccessfully treated). A higher mean total and direct bilirubin was found in patients unsuccessfully treated (mean total bilirubin of 5.41 mg/dL, 95 % CI 2.03-8.8 vs 2.65 mg/dL, 95 % CI 1.29-4; p = 0.034; mean direct bilirubin of 3.76 mg/dL, 95 % CI 1.40-6.12 vs 1.81 mg/dL, 95 % CI 0.75-2.87; p = 0.038). More patients unsuccessfully treated than patients successfully treated with traditional lithotripsy have multiple stones (≥ 2) (62.5 % vs 28.6 %, p < 0.05).

Conclusions Cholangioscopy-guided EHL is more effective in the treatment of difficult biliary stones compared to traditional lithotripsy. The presence of multiple stones could direct the operator to proceed to EHL having a higher probability of failing with traditional lithotripsy techniques.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP384 Trans-duodenal gallbladder EUS-guided drainage: a single center experience

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Aims Endoscopic ultrasound-guided gallbladder drainage (EUSGBD) is becoming an important and effective alternative to percutaneous drainage (PTD) for patients not suitable for surgery. It is also an acceptable option for biliary drainage in oncologic patient, if retrograde drainage failed. Placing of a lumen apposing metal stent (LAMS) for EUSGBD allows the removal of gallbladder stones too, so becoming a possible alternative to surgery in very selected cases.

Methods Retrospectively analyzed experience with EUSGBD, from 12/2019 to 05/2023, in a single peripheral hospital, using 3 types of LAMS (10x10mm, 15x10mm, 16x20mm), delivered with an electrocautery-enhanced catheter.

Results EUSGBD was at least attempted in 23 patients (15/8 = M:F), median age of 83 years old (52-89), during the above mentioned period. 13 patients (56.2 %) had an advanced cancer (6 pancreatic metastatic cancer, 5 cholangiocarcinoma, 1 breast metastatic cancer, 1 metastatic pulmonary NET) and the remaining with acute cholecystitis but not considered fit for surgery (whose 2 already received a PTD). EUSGBD was attempted through the duodenum in all cases but one, previously treated with PTD and drained through the stomach. In one case, the stent was mis-deployed through the duodenum (without entering the gallbladder lumen), so requiring the placement of an over-the-scope-clip and a different biliary drainage for biliary obstruction in an oncological patient. A 15x10mm LAMS was used in 14 cases, 10x10mm LAMS was used in 6 cases (including the failed one) and 16x20 mm in 2 cases. A double pigtail 5Fr 7cm was placed through all 22 successfully placed LAMS. 3 patients underwent electrohydraulic-lithotripsy (EHL) through the LAMS after 4-8 weeks. In 5 patients LAMS was then removed. Generally, except one complication, it was not described short term or long-term adverse events. 6/23 (26 %) patients died for oncological disease progression and for other causes not endoscopic procedure related.

Conclusions EUSGBD represents a promising therapeutic approach in patients with high risk of mortality. Considering the high rate of clinical and technical success as well as the possibility to manage endoscopically potential complications, this approach could be also proposed in peripheral center and not only in advanced endoscopic center.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP385V Endoscopic gallbladder lithotripsy for the treatment of recurrent lithiasic cholecystitis after EUS-guided gallbladder drainage

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Abstract Text An 86-year-old female with acute lithiasic cholecystitis unfit for surgery underwent EUS-guided gallbladder drainage (EUS-GBD) using a lumen apposing-metal stent (LAMS). Two months later she was readmitted for a new episode of acute cholecystitis. Computed tomography scan showed obstruction of the LAMS and two large lithiasis, one of them adjacent to the cystic duct. During the procedure we identified that the LAMS was embedded so we repermeabilized it, performed a direct cholecystoscopy with a standard gastroscope through the LAMS, cleaned the gallbladder and replaced the LAMS with two double pigtail plastic stents.

Endoscopic gallbladder lithotripsy after EUS-GBD was effective and safe. This approach could be necessary in selected patients with large cholelithiasis.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/6d10770b-bb7a-40b0-b5cb-8e170c738920/Uploads/13821_ESGE_DAYS%20DEFINITIVO%20CON%20DIAPOS%20INCLUIDAS%202-0.mp4

Conflicts of interest Carlos Chavarría has received honoraria as speaker from Boston Scientific. The rest of authors disclosed no financial relationship.

eP386V Palliative endoscopic management of malignant biliary obstruction : a retrospective report about 270 cases

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Aims Endoscopic biliary drainage remains the main palliative treatment for biliopancreatic cancers. The aim of our study was to analyze the results of this drainage technique, as well as the various associated success and failure factors.

Methods From January 2002 to September 2023, 270 patients with neoplasic biliary stenosis were included in the study. Patients were divided into 3 groups: Group A for patients with proximal cholangiocarcinoma, Group B for patients with pancreatic cancer, and Group C for patients with a gallblader cancer. Only technical success was analyzed. This success was defined as the placement of biliary stent covering the entire stenosis. The factors associated with the success were studied by logistic regression analysis.

Results The mean age was 64 + /-11.2 years. The sex ratio M/F was 1.5.Overall technical success rate was 80 %. The analysis according to the type of cancer showed that the success rate was better in pancreatic cancer (81 %) compared to cholangiocarcinoma (77 %); this diffence wasn't sigificant in group C which included few patients this rate was 83 %. Subgroup analysis showed that in group A, the tightness of the stenosis as well as its dilation before placement of the prosthesis were predictive factors of success. In group B, lower bile duct stenosis was the only predictive factor of success while duodenal stenosis was a factor of failure. While in group C, the tightness of the stenosis was a predictive factor of failure while the dilation of the stenosis before placement of the prosthesis was a factor associated with success.

Conclusions Palliative endoscopic biliary drainage is an effective method in biliopancreatic cancers. In our study, the important factors associated with success are low located stenosis, the prior dilation of the stenosis and the absence of duodenal stenosis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP387 Diagnostic Accuracy of APRI and FIB-4 for predicting large Esophageal Varices in Liver Cirrhosis: A Retrospective Study

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Aims Upper gastrointestinal endoscopy is the gold standard diagnostic method for screening large varices. However, due to its invasiveness and relatively high cost, the Baveno VII consensus suggests that gastroscopy may not be necessary for patients with transient elastography < 20 kPa and platelet count > 150 × 109/L. Transient elastography (FibroScan) is considered the most promising noninvasive technique for evaluating portal hypertension in chronic liver disease. Nevertheless, its availability in lower-middle-income countries is limited. In this retrospective study, we compared the diagnostic performance of the aspartate aminotransferase to platelet ratio index (APRI) and fibrosis-4 index (FIB-4) in predicting the presence of large esophageal varices.

Methods Out of 243 cirrhotic patients under our department's care from January 2016 to June 2023, 100 patients had compensated cirrhosis (42 %). Among these, 14 patients had no esophageal varices, while 86 patients had esophageal varices. These patients were further categorized into two groups: one with small varices (stage I) and the second with large varices (stage II-III). The predictive performance of Fib-4 and APRI indices was assessed using the area under the receiver-operating characteristic curve (AUC). Statistical analyses were conducted using SPSS 23.0.

Results A total of 100 patients with compensated liver cirrhosis were enrolled, with 14 having no esophageal varices (EV) and 86 presenting with EV. Among them, 54 % had small EV, and 46 % had moderate-to-severe EV. In the overall analysis, the AUCs of the non-invasive scores (Fib-4 and APRI) for predicting moderate-to-severe EV were 0.687 and 0.601, respectively. The FIB-4 cutoff value for predicting large EV demonstrated that the sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) were 71.8 %, 63.8 %, 62 %, and 73 %, respectively, using the FIB-4 cutoff of 4.550. The optimal cutoff point for APRI in predicting large EV was 1.085, with corresponding sensitivity, specificity, PPV, and NPV of 61.5 %, 53.2 %, 52 %, and 62.5 %, respectively.

Conclusions In conclusion, our study suggests that individuals with a FIB-4 index ≥ 4.55 and APRI index ≥ 1.08 should consider undergoing esophagogastroduodenoscopy for the screening of large varices that may require treatment. This approach aims to enhance the prognosis of liver cirrhosis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP388 Intracavitary vacuum therapy in the treatment of anastomotic leak: knowing when to stop is also crucial!

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Abstract Text 62 years-old male submitted to a total gastrectomy due to gastric cancer.Within 72 hours, the patient developed sepsis.CT revealed an anastomotic leak.Endoscopy showed a 45 % dehiscence with a large-sized cavity. Endoluminal vacuum therapy(EVT)was placed intracavitary.After the third replacement, the patient presented hemorrhage through the transnasal tube. New endoscopy showed the EVT in situ.After removal, a 3 cm granulated cavity with a clot in its distal portion was identified. Given the tissue granulation and possible complications(proximity with the Aorta)EVT was stopped.The patient maintain medical treatment with improvement.Endoscopy one week after revealed complete closure of the dehiscence.This case highlights that even when there is a considerable size cavity the presence of granulation tissue can allow its closure even after EVT removal. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP389 Assessment of standard EUS FNB for molecular testing in cancers; a retrospective tertiary center study

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Aims Precision oncology is a promising development in cancer treatment that uses target therapies based on the genomic profile of a patient's cancer. Nearly 30 % of pancreatic cancers have detectable genomic lesions that could potentially impact management. This study assessed whether standard endoscopic ultrasound-guided fine needle biopsy (EUS FNB) could produce sufficient samples for molecular research.

Methods Data from electronic medical records was used to perform a retrospective analysis on patients who underwent EUS-guided FNB for solid gastrointestinal lesions at Manchester University NHS Foundation Trust between January 1 and December 31, 2022. Lymphoma samples and cystic lesions were not included. Specimens were deemed adequate if over 100 tumor cells were present and malignant cells constituted over 20 % of the sample. Samples were categorized as borderline when tumor cellularity was low or marginal, generally less than 20 %. Additionally, extensive necrosis lowered sample quality, even if cellularity surpassed cutoff. Necrosis indicates biomolecule degradation, jeopardizing molecular analyses. Thus borderline samples, despite containing some tumor content, are at risk for failed genomic testing from insufficient or poor quality cells.Our standard protocol involves; three passes of a 22ga EUS FNB Needle (Acquire, Boston Scientific, Natick, MA). Rapid onsite cytologic evaluation (ROSE) was not available.

Results Preliminary results were analysed from 42 cases. 36 samples met our inclusion criteria, while 6 cases were excluded (4 cysts, 1 reactive lymph node and one rectal adenocarcinoma). The mean age of patients was 64.8 years. The mean mass size was 35.3 mm. Of the 36 samples, 23 (63.8 %) were deemed suitable for molecular testing while 6 (16.6 %) were borderline[JG1] [na2] . The remaining 7 samples (19.4 %) were inadequate for molecular testing. For these

inadequate samples, there was no statistical difference based on location. There were no adverse events recorded.

Conclusions Preliminary findings from 36 EUS-guided samples for solid GI massesdemonstrate the feasibility of obtaining adequate material for molecular profiling, in 2/3s of cases. However, 19 % were still inadequate. Ongoing optimization of tissue acquisition, processing and analysis is vital to further improve molecular diagnostic yield and to allow personalized medicine in pancreatic cancer. The study is limited by sample size. We suggest larger studies are required to identify the ideal technique; for example, in terms of needle used, number of passes and tissue acquisition method. Ultimately, will allow to align strategies, strengthening the implementation of EUS tissue sampling for genomics-driven cancer care. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP390 Long-term outcomes of endoscopic resection of dysplasia in patients with Inflammatory Bowel Disease

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Aims The technical feasibility of endoscopic resection (ER) in inflammatory bowel disease (IBD) has previously been reported [1], however these studies are limited by the lack of long-term outcomes for patients. This study therefore aims to evaluate the long-term outcomes of patients with IBD undergoing ER for visible neoplasia.

Methods A prospective database was maintained of all IBD patients who had undergone ER for visible neoplasia. The database was interrogated for predefined outcome measures.

Results 36 IBD patients who had undergone ER for neoplasia at a single centre had follow-up data available. 20 patients were male. Median age was 66 (30-86). 81 % (n = 29) had ulcerative colitis and 20 % (n = 7) had Crohns Colitis. 3 patients had a co-existing Primary Sclerosing Cholangitis (PSC). Resection was performed by knife assisted resection (KAR) in 47 % (n = 17), endoscopic submucosal dissection (ESD) in 39 % (n = 14) and endoscopic mucosal resection (EMR) in 11 % (n = 4) of patients. The overall mean follow-up from the time of ER was 48 months (range 0–167). 31 patients entered endoscopic surveillance and mean follow up time of this group was 51 months (5-167). Of these 18.2 % (n = 6) developed metachronous lesions requiring further ER. 4/6 of these had curative endoscopic resection. 22 % (n = 8) of patients went on to have surgery. Indications included poor prognostic markers after ER (n = 5), unsuccessful medical management of IBD (n = 2) and post endoscopy complications (n = 1). The median time between ER and need for surgery was 5 months (0-141). 7 patients died of which only 1 was related to their IBD. 3 patients were lost to follow-up.

Conclusions IBD patients are at high risk of developing metachronous neoplasia so should be meticulously followed up with endoscopic surveillance. Metachronous lesions can be detected and resected endoscopically. 20 % of patients go on to have surgery following ER, the majority of these are due to poor prognostic markers following ER. No patients died due to advanced cancer following ER. This study provides important information for counselling patients on management options for visible neoplasia in IBD.

Conflicts of interest Professor Bhandari has received research grants or is the advisory board for Fujifilm, Boston, Olympus, Pentax, 3-D matrix, NEC (Japan), Medtronic.

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eP391 Medium and long term outcomes of Per Rectal endoscopic myotomy for Hirschsprung's disease

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Aims To evaluate technical outcomes and clinical success (measured as stool frequency ,unit laxative usage and improvement in Hirschsprung's disease Anorectal malformation QoL questionnaire [HAQL]) pre and post per rectal endoscopic myotomy (PREM) .

Methods Single arm single centre prospective observational study of HSCR patients treated with PREM. HSCR was diagnosed by history, contrast enema, anorectal manometry and sigmoidoscopy guided rectal EMR biopsies. Stool frequency, laxative usage and HAQL questionnaire before and after PREM were compared.

Results Sixteen patients (age 14 [± 14.4] years; 11 male) underwent PREM during a 7-year period. Majority (68.8 %) have symptoms from birth. Transition zone on barium enema was seen in all (100 %) , spastic colonic segment with proximal dilation on colonoscopy (93.8 %) . Mean aganglionic segment length was 7.0 cm ± 3.9, RAIR was absent in 9 cases (56.3 %) and present in 7 cases (43.8 %). Mean procedure time 91 minutes ± 28.9, and mean length of hospital stay was 3.5 days. Median follow-up was 8 months (IQR 23). Stool frequency was 1in 4.1(± 1.3) days pre vs. 1in 1.4 (± 0.8) days post PREM (P < 0.0001). Mean laxative usage was 4.7(± 3.8) units of laxative (UL) pre vs. 0.8(± 0.9) UL post PREM(P < 0.0001). HAQL scores of 8.5 (± 3.9) pre PREM improved to 1.3(± 0.9) post PREM (P < 0.0001). No laxatives were used by 43.8 % patients after PREM. Fecal incontinence was observed in 4 patients pre PREM with complete resolution in two and partial resolution in 2 patients. The single adverse effect (anal stenosis) was treated with dilatation.

Conclusions PREM is a safe and effective minimally invasive procedure to treat short segment hirschsprung's disease (SS-HSCR). Outcomes are sustained in the long term as demonstrated by improved stool frequency rates , mean laxative use and HAQL questionnaire.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP392 Efficacy and safety analysis of Single Balloon Enteroscopy in a tertiary hospital

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Aims Single Balloon Enteroscopy (SBE) stands out as one of the most frequently employed techniques for device-assisted enteroscopy, despite the varying data on its efficacy.

The aim of this study is to analyze the effectiveness and safety of procedures conducted using SBE in a tertiary hospital.

Methods This retrospective study included all patients undergoing SBE at Hospital Clínic between March 2011 and December 2022. Demographic characteristics, indication for the procedure, technical success, diagnostic yield,

intervention yield, total exploration time and adverse events (AE) were collected. Data analysis was performed using IBM SPSS Statistics 28.0.

Results A total of 687 enteroscopies performed on 493 patients were analyzed (516 antegrade and 171 retrograde; 75.1 % and 24.9 % respectively). Of the patients, 56 % were men, with a mean age of 61.8 ± 18.3 years. The most frequent indication for SBE was prior findings from capsule endoscopy (399 cases, 58.1 %). The technical success rate was 98.3 % (99.6 % anterograde and 94.1 % retrograde). The overall diagnostic yield was 80.8 % (85.2 % anterograde and 67.2 % retrograde, p < 0.001). Overall intervention yield (therapeutic or biopsies) was 83.5 % (88.3 % anterograde and 69 % retrograde, p < 0.001). The mean total exploration time was 70 ± 27.9 min, and the overall AE rate was 2 %, with only 3 serious adverse events (SAE) (0.4 %).

Conclusions Single Balloon Enteroscopy demonstrates a high technical success and diagnostic yield, maintaining an excellent security profile.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP393 Contribution of Colonoscopy in Patients with Isolated Perianal Fistula

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Aims Perianal fistula is a common condition in proctological practice; in the majority of cases, it is cryptoglandular, but it can also be indicative of specific diseases. The aim of this study is to determine the prevalence and types of ileocolic lesions encountered in patients with isolated perianal fistula.

Methods This is a retrospective descriptive study including all patients who underwent colonoscopy for isolated perianal fistula at the Hepato-Gastroenterology department of Hedi Chaker University Hospital in Sfax over a six-year period from May 2017 to June 2023.

Results A total of 68 patients were included. The average age was 46 ± 16 years. The male-to-female sex ratio was 2:1. Chronic diarrhea was observed in 14.7 % of cases, rectal bleeding in 7.3 %, and weight loss in 7.3 %. The bowel preparation quality was moderate in 46 % of cases. Colonoscopy was complete with exploration of the terminal ileum in 61 % of cases. Staged biopsies were performed in 56 % of cases. Lesions were identified in 11.9 % of patients. Colonic polyps were identified in 76 % of cases. Signs suggestive of Crohn's disease were observed in 4.4 % of cases. The presence of chronic diarrhea was significantly associated with the presence of Crohn's disease.

Conclusions Clinicians should consider performing a colonoscopy in patients with isolated perianal fistula, especially in the presence of chronic diarrhea.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP394 Modified Per-Oral Endoscopic Septo-Miotomy (m-POESM) for Zenker Diverticulum management: results from a prospective cohort at a tertiary referral center

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Aims Endoscopy is the first-line approach for Zenker Diverticulum (ZD) management. Various endoscopic techniques have been described, each with its advantages and limitations. We present a new technique called Modified Per-Oral Endoscopic Septo-Miotomy (m-POESM) and describe the results from our initial experience in a prospective cohort.

Methods We prospectively followed up all consecutive patients who underwent m-POESM from June 2019 to August 2023. The procedures were performed using a slim gastroscope (diameter 9 mm, operative channel 2.8 mm) equipped with a tapered cap on patients under general anesthesia. The m-POESM procedure involves a direct incision of the septum with a Hook Knife and a cricopharyngeal myotomy. The progressive tunneling within the muscle is facilitated by the submucosal infiltration, which allows for the enhanced distinction of the muscle fibers. Clinical success (CS) was defined as a Dakkak Bennet Dysphagia Score (DBDS) of < = 1 at 3 months. Adverse Events (AEs) are classified according to AGREE Classification.

Results Eight patients (50 % male) with median age of 71 (IQR 67-77) and Body Mass Index of 25 (IQR 27-24) were enrolled, most of them classified as ASA 1 (5/8, 62.5 %). The median depth of the diverticula was 30 mm (IQR 27-45). Median procedural time was 30 minutes (IQR 23-46) and the median hospital stay was 2 days (IQR 2-1). Technical success was achieved in all cases. We documented an intraprocedural perforation, which was successfully treated by covered self-expandable metal stent placement (AGREE IIIa), resulting in no clinical sequalae. Clinical success was achieved in all patients (100 %). After a median follow-up of 239 days (IQR 98-529), no cases of symptom recurrence were recorded.

Conclusions m-POESM is a simple and effective technique with a favorable safety rate for ZD management, and it enables the simultaneous achievement of a complete myotomy and a reduction of the residual mucosal flap. Further validation of the technique is required through larger cohort studies.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP395 Defining the standard length of Peroral Endoscopic Myotomy (POEM) for achalasia: a systematic review and meta-analysis

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Aims Peroral endoscopic myotomy (POEM) has revolutionized achalasia treatment. However no clear definition of "long", "standard" or "short" POEM exists to date. Evidence suggests myotomy limited to the LES (< 6cm) may be highly effective, timesaving and associated with less reflux, yet longer myotomy is commonly performed in clinical practice.

Methods We conducted a systematic review with meta-analysis to define current myotomy length standards during POEM. A literature search was performed on MEDLINE-Pubmed, Embase, Scopus, and Cochrane Library (from inception to December 2022). We included prospective, retrospective studies and randomized controlled trials in which no definite or comparative myotomy length was intentionally adopted thus representing a "standard" myotomy for the operator. The primary outcome was the pooled mean total myotomy length. Secondary outcomes included clinical success and reflux symptoms. Exclusion criteria were patient age < 18 years; non-high resolution manometry diagnosis, studies including motility disorders other than achalasia, comparing different myotomy lengths or adopting pre-specified myotomy lengths, type III achalasia only studies.

Results From initial 7,172 records, after exclusion criteria were applied, a total of 25 articles were included. Six articles reported results in separate subgroups and were included individually, totalling 31 studies and 3023 patients for analysis. The pooled mean of total myotomy length was 10.39 cm (95 % CI 10.06-10.71; I^2 99.3 %). The pooled mean of esophageal and gastric myotomy length, provided by 17 studies, was 7.11 cm (95 % CI 6.51-7.71; I^2 99.8 %) and 2.81 cm (95 % CI 2.41-3-22; I^2 99.8 %) respectively. At the subgroup analysis for achalasia subtypes, pooled mean length in non-spastic achalasia (type I-II) was 10.17

cm (95 % CI 9.91-10.43; $I^2$94.2 %), while in type III attested at 14.02 cm (95 % CI 10.59-17.44; I^2 98.9 %). Pooled mean myotomy length for studies conducted between 2014-2018 was 10.56 cm (95 % CI 9.51-11.61; I^2 99.0 %) while studies between 2019-2022 showed a mean length of 10.3 cm (95 % CI 9.99.10.61; I^2 99.6 %). No geographical difference was registered either between Eastern (10.2 cm, 95 % CI 9.12-10.92; I^2 98.9 %) and Western (10.95 cm, 95 % CI 9.83-12.07; I^2 99.5 %) countries. At a median follow-up of 29 months, the pooled clinical success rate was 91 % (95 % CI 88.9 %-93.2 %; I^2 67.2 %), while the pooled rate of post-POEM clinical reflux was 26 % (95 % CI 21.0 %-31.3 %; I^2 89.5 %).

Conclusions Our meta-analysis found that the pooled mean myotomy length during a "standard" POEM is 10.4 cm, remaining over 10 cm in non-spastic achalasia. High heterogeneity confirms POEM technique needs further standardization.

Conflicts of interest S. Danese has served as a speaker, consultant and advisory board member for Schering-Plough, AbbVie, Actelion, Alphawasserman, AstraZeneca, Cellerix, Cosmo Pharmaceuticals, Ferring, Genentech, Grunenthal, Johnson and Johnson, Millenium Takeda, MSD, Nikkiso Europe GmbH, Novo Nordisk, Nycomed, Pfizer, Pharmacosmos, UCB Pharma and ViforE. Savarino has served as speaker for Abbvie, Agave, AGPharma, Alfasigma, Aurora Pharma, CaDiGroup, Celltrion, Dr Falk, EG Stada Group, Fenix Pharma, Fresenius Kabi, Galapagos, Janssen, JB Pharmaceuticals, Innovamedica/Adacyte, Malesci, Mayoly Biohealth, Omega Pharma, Pfizer, Reckitt Benckiser, Sandoz, SILA, Sofar, Takeda, Tillots, Unifarco; has served as consultant for Abbvie, Agave, Alfasigma, Biogen, Bristol-Myers Squibb, Celltrion, Diadema Farmaceutici, Dr. Falk, Fenix Pharma, Fresenius Kabi, Janssen, JB Pharmaceuticals, Merck & Co, Nestlè, Reckitt Benckiser, Regeneron, Sanofi, SILA, Sofar, Synformulas GmbH, Takeda

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eP396 Removal of an ingrown biliary self-expanding metal stent – An easy fix?

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Abstract Text Removal of ingrown self-expanding metal stents (SEMS) is difficult. Several possible removal techniques for ingrown SEMS such as »SEMS-in-SEMS« technique, the invagination method, and the use of a mechanical lithotripter have been described [1–5]. A 67-year-old mail patient, with benign stenosis of distal common bile duct (CBD) due to chronic pancreatitis, was referred 6 months after a covered SEMS was placed in an attempt to dilate the stenosis. Removal with a snare and »SEMS-in-SEMS« technique failed due to ingrowth of the proximal end of SEMS. An attempt to remove the SEMS using a a mechanical lithotripter and a long guide-wire passed through the mash at the distal end of SEMS in a loop-shaped manner was made. SEMS was pulled into the lithotripter sheath and peeled of CBD wall. Removal of an ingrown SEMS can be very painstaking. Using the described technique the procedure can be done safely.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP397 Diagnostic Role of Bile Cytology in suspected hilar cholangiocarcinoma: Bile Aspiration Cytology and Brush Cytology

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Aims Cholangiocarcinomas, broadly known as bile duct cancers, are enigmatic and difficult to diagnose and treat. Despite their rarity, these cancers have poor prognosis and are generally detected at advanced stages. Definitive histology and/or cytology are required to confirm a diagnosis of malignancy before aggressive management.

The aim of this study is to examine endoscopic biliary tract cytology under Endoscopic Retrograde Cholangiopancreatography (ERCP) as a diagnostic tool in suspected cholangiocarcinoma. This current analysis has been conducted to assess the sensitivity of bile aspiration cytology (BAC) and the accuracy of bile duct brush cytology. It also evaluated the comparative effectiveness of BAC and brushing for cytology in the diagnosis of cholangiocarcinoma. [1–4]

Methods Data were reviewed from 2018 to November 2023 by analyzing 1600 ERCP through our endoscopic department. Data on 34 patients with suspected hilar cholangiocarcinoma who underwent BAC through a drainage catheter and/or brushings during ERCP were retrospectively collected. A total of 47 biliary samples including 17 bile aspirations and 30 biliary brushings were analyzed by cytological examination. The diagnostic performance of bile aspiration associated with biliary brushing during ERCP was compared to brush cytology alone.

Results 34 patients with suspected hilar cholangiocarcinomas (18 males, 16 females) were included. The mean age was 65 years. Cytological diagnosis was adenocarcinoma in 18 patients, atypical (category III) in 9 and benign biliary strictures in 5 patients. In 6 cases, cytology bile examination was not carried out due to ERCP failure. The number of cytological samplings ranged from 1 to 3 times. 41 % was obtained by only brush cytology, 9 % by bile aspiration cytology (BAC) and in 32 % of cases, samplings were obtained by combination of bile aspiration in addition to brushing. No complications related to the cytological procedure occurred. The overall brush cytology findings for malignancy were as follows: positive predictive value 46 %, negative predictive value 24 % and accuracy of 20 %. Positive results for bile duct aspiration was approximately 6 %. The two sample-combination bile aspiration + brushing under ERCP gave a negative predictive value of 45 % and a diagnostic accuracy of 54 %. When suspicious results were added to malignant results as positive result, the positive diagnostic yield was 65 %.

Conclusions Biliary cytology is a straightforward technique that helps in performing and optimizing the sensitivity of ERCP to provide a definitive diagnosis. The findings have shown that the combination of bile aspiration and brush cytology significantly increase accuracy compared to brushing alone in diagnosing malignant bile duct cancer. Inclusion of significant atypia as malignant results may improve the diagnostic performance of cholangiocarcinomas.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP398 Per oral endoscopic myotomy and endoscopic release of tight fundoplication wrap for reccurent dysphagia after Laparoscopic Hellers myotomy plus Dor fundoplication for achalasia

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Abstract Text A 61 year gentleman underwent laparoscopic Hellers myotomy with Dor Fundoplicaton for Achalasia six months prior, and twice Pneumatic balloon dilatation. Had symptoms of dysphagia. Pre procedure hold up of barium contrast seen. After POEM, fundic wrap was identified deep to myotomy and fundus was dissected off the adhesions. Four sutures were identified between the fundus and crura and were dissected. Adhesiolysis was done between the fundus -left lobe of liver, between the fundus – under surface of diaphragm, scope was passed into peritoneum, adhesiolysis was done and fundus wrap was released. post procedure free flow of barium seen. Patient was on liquids day 1, soft diet day 2 without dysphgia. Follow up gastroscopy showed lax sphincter and an opened up wrap.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP399 Esophagogastric junction outflow obstruction: is it an early stage of achalasia?

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Aims Esophagogastric junction outflow obstruction (EGJOO) shares symptomatic similarities with achalasia, a well-recognized condition marked by dysregulated esophageal motility. This study aims to examine the clinical and paraclinical aspects of EGJOO while drawing relevant comparisons with achalasia.

Methods A monocentric retrospective longitudinal study spanning four years was conducted followed by a cross-sectional study to ensure clinical follow-up of patients through telephone calls among two groups of patients: G1 including 59 patients diagnosed with Achalasia and G2 including 11 patients diagnosed with EGJOO. We compared clinical, endoscopic, and manometric data of the two groups.

Results We collected data from 70 patients with an average age of 49 years [18-80] and a male to female ratio of 0.94.

For the first group of patients with achalasia (G1), the average age was 48 years, with a male-to-female sex ratio of 1.05, and a mean Eckardt score of 5.5 [3-10]. Esophagogastroduodenoscopy (EGD) was normal in 44 % and showed stasis in 66 % of cases, with a functional obstruction of the esophagogastric junction (EGJ) in 56 % of cases. The average integrated relaxation pressure (IRP) was 28.4 mmHg ± 12, and the average lower esophageal sphincter (LES) pressure was 43.6 mmHg ± 18. Type I achalasia was predominant in 64 % of achalasic patients. Seventy-seven percent of patients received treatement, with 60 % (37) treated by pneumatic dilation. The mean post-therapeutic Eckardt score was 2.6 ± 2.3.

For the second group of patients with EGJOO (G2), the average age was 57.6 years, with a male-to-female sex ratio of 0.6. The mean Eckardt score was 4 [0-6]. EGD was normal in 64 % of cases (7 patients), showed stasis in 9 % of cases, and a functional obstruction of the EGJ in 27 % of cases. The average IRP was 32.5 mmHg ± 16, and the average LES pressure was 61 mmHg ± 21.

Upon comparing the two groups, it was observed that during achalasia, dysphagia was more severe (**p = 0.03**), weight loss was more frequent (**p = 0.02**), and the initial Eckardt score was higher (**p = 0.002**). No statistically significant differences were found between the two groups in terms of gender, age, age at the onset of symptoms, and endoscopic and manometric findings (PRI and average SIO pressure).

Conclusions In comparing EGJOO with achalasia, our study highlights distinct clinical and paraclinical features. While EGJOO and achalasia share symptomatic similarities, our findings suggest that EGJOO may represent a distinct entity rather than an early stage of achalasia. Further research is warranted to elucidate the underlying mechanisms and optimize tailored therapeutic approaches for these two conditions.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP400 Techniques of polypectomy of diminutive polyps: a real-life experience of a tertiary center

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Aims ESGE recommends cold snare polypectomy (CSP) as the preferred technique for removal of diminutive polyps (size ≤ 5 mm) of the colon and rectum. In recent years, CSP has been increasingly used for small polyps instead of hot snare polypectomy (HSP). Histological analyses suggest that CSP causes less damage to blood vessels in the submucosal layers, which results in a reduced incidence of hemorrhage compared to HSP. The use of CSP has significantly increased over time, recent studies show that now it accounts for 2/3 of all polypectomies for < 6 mm polyps. Results from a recent network meta-analysis show that CSP is safer than HSP for < 10 mm polyps, especially for patients taking anti-thrombotic drugs. We therefore aim to evaluate the resection attitude in a tertiary center that is not included by the colorectal cancer screening campaign.

Methods We retrospectively evaluated the polypectomy modalities of a 4 month-period from January to May 2023.

Results We analyzed the resection modalities in 715 consecutive patients afferent to our Endoscopic Unit. At least one polyp was resected in 387 patients (54 %), with a mean number of polyps of 2.8. The maximum size of polyps was ≤ 5 mm in 178 patients (46 %). The endoscopic resection techniques used were: CSP, HSP, standard biopsy forceps polypectomy. Different techniques have been used in patients with more than 1 polyp. 69 polyps (38.76 %) were resected using CSP, in 13 cases HSP was used (7,3 %) and in 119 cases polyps were resected by cold biopsy forceps (66.8 %).

Conclusions Our data highlight the heterogeneity in technique of resection of diminutive polyps in the setting of a tertiary care center outside the colorectal cancer screening campaign. Our retrospective study shows only a partial adherence to ESGE guidelines, with wide variability regarding the technique of polypectomy. The predominantly used removal of small polyps is represented by forceps polypectomy. Future larger, multicentric studies are needed to investigate the most widely used technique, including adverse events and cost-effectiveness analyses. Those data may provide more accurate information regarding device requirements for Digestive Endoscopy Services, since each technique entail different costs, with important budget implications.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP401 Hybrid Stent with Endoscopic Vacuum Therapy (VACStent) for the treatment of post-Ivor Lewis esophagectomy leaks: The First Italian Experience

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Aims Endoscopic vacuum therapy (EVT) and covered self-expandable metal stent (c-SEMS) are primary treatments for post-esophagectomy leaks. Although these methods have improved clinical outcomes, they have shown some limitations, including the lack of drainage function in c-SEMS and lumen obstruction in EVT. A new fully covered stent within a polyurethane sponge cylinder (VACStent, Microtech, Germany) merges the mechanism of action of both c-SEMS and EVT. The evidence is still preliminary but promising.

Methods We conducted a prospective follow-up on the first three consecutive patients with anastomotic leak (AL) after Ivor-Lewis esophagectomy (ILE), treated with VACStent placement from June to September 2023 at San Raffaele Hospital (Milan, Italy). The device was scheduled to be changed every 7 days. The negative pressure of the VACStent was set at -125 mmHg for the first 24 hours, then reduced to -75 mmHg. Technical success was defined as the correct device placement and removal. Clinical success was defined as the AL successful healing at the endoscopic and radiological assessment.

Results Case 1: a 72-year-old man developed a 5 mm AL on the 21st postoperative day (POD) after ILE, and underwent a first VACStent placement. The endoscopic examination after stent removal showed complete healing of the AL. Case 2: a 78-year-old woman was referred to our unit on POD 16 for a recurrent AL following ILE, which had previously been treated with redo surgery. Endoscopy revealed two ALs, each 5 mm in size. A first VACStent placement was performed. Upon removal, leaks were healed. Case 3: a 65-year-old presented with a 7 mm AL on POD 16th after ILE. She underwent three consecutive VACStent placements. Due to the lack of endoscopic and clinical improvement, we decided to switch the treatment to a c-SEMS placement. No adverse events (AEs) related to the VACStent were recorded in any of the three cases.

Conclusions In our initial experience with three patients, the VACStent proved to be a safe and effective technique for treating leaks following IVE. Clinical success was achieved in 2 cases of 3. No adverse events were recorded. Larger perspective studies are needed to further define the role of VACStent in managing dehiscences after upper GI surgery.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP402 Single-Center Experience Of Managment Of Perforation After Endoscopical Submucosal Dissection (Esd) Using Over-The-Scope Clip

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Aims BACKGROUND AND AIMS: The Endoscopical Submucosal Dissection (ESD) is an advanced resection technique for removing "en bloc" gastrointestinal (GI) lesions, bigger than 20 mm and with macroscopic features of no deep infiltration (limited to the submucosal). It is a complex procedure and, therefore, with risk of complications (early and/or delayed), first of all bleeding, then perforation. Our aim is to confirm the pivotal role of Over-The-Scope Clip for menagement of perforation occurred during the ESD.

Methods Our Centre started the ESD techinque from March 2023 by an expert endoscopist, with a collegue in training, and we have included in a database the information of all procedures carried out from that period to September 2023.

Results Were included 34 adult patient (M/F: 19/15) with an age mean of 69 years. The mean lesions size was of 31 mm ± 20 for the upper-GI, 25 mm ± 15 for the lower-GI. Histological findings were reported in the tab. 1. All procedures were performed under general anesthetic care. Lesions were succesfully resected "en bloc" in all patients (100 %) by ESD procedure using minimal CO2 insufflation. The overall intraprocedure perforation occured in 3 out of 34 (8,8 %): 1 out of 18 was located in the upper-GI tract (fundus); 2 out of 16 lesions were located in the lower-GI tract (1 in the ascending colon and 1 in the discending colon, respectively). According to clinical and medical stability of the patients, all the parietal defect were treated successfully, at the end of the complete ESD, by positioning over-the-scope clip, allowing a full-thickness closure of the GI tract defect, avoiding emergency surgery. The R0 rate was of 94.1 %, with two cases that underwent to surgery beacause of "pT2" at the final histological report.

Conclusions Over-the-scope clip is a known safe and efficacy device for closing perforation occured during ESD, in the course of the same endosocpic procedure. More and larger studies are needed to further validate these findings.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP403 Predictive factors of failure of main bile duct cannulation during endoscopic treatment of biliary lithiasis: about 498 cases

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Aims Endoscopic retrograde cholangiopancreatography (ERCP) has become the preferred minimally invasive approach for the treatment of common bile duct (CBD) stones . Successful ERCP requires deep cannulation of the common bile duct via the major duodenal papilla . Selective biliary cannulation reportedly fails in up to 18 % of cases , though this falls to ≤ 5 % in experienced hands. Our aim was to identify the predictive factors for failed biliary catheterism in patients with CBD stone.

Methods Our study is retrospective carried out over the period June 2017 to September 2022 including patients treated with ERCP for CBD stones.

Results We included 498 patients. The standard catheterization techniques were successful in 426 patients (85.54 %). Advanced techniques were utilized in 14.4 % of cases (n = 72) with success in 42 patients (32 fistulotomies, 3 papillotomies and 6 catheterism through choledochoduodenal fistula). In univariate analysis, we identified eleven predictive factors for failure of CBD catheterization: age > 65 years (p = 0.001), cytolysis (p = 0.011), elevated alkaline phosphatase levels (p = 0.029), hyperbilirubinemia (p = 0.007), small papilla (p < 0.001), protruding papilla (p < 0.001), hidden papilla (p < 0.001), difficult orientation of the papilla (p < 0.001), intradiverticular papilla (p = 0.047), difficult CBD cannulation as defined by the European Society of Gastrointestinal Endoscopy (ESGE) criteria (5-5-1) (p < 0,001) and the use of advanced catheterization techniques (p < 0.001). On multivariate analysis, four factors were found to be predictive of failed cannulation : small papilla (p = 0.032, OR = 6), hidden papilla (p = 0.005, OR = 13,1), difficult orientation of the papilla (p = 0.01, OR = 13,3), and the use of advanced catheterization techniques (p < 0.001, OR = 12,7) [1–4].

Conclusions In our series, papilla characteristics are the main factors that influenced the success rate of CBD cannulation. Larger-scale studies are necessary to better assess factors that could be implicated and thus propose effective ERCP management strategies.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP404V Co-infection by duodenal giardiasis and helicobacter pylori. visualization of trophozoites in duodenal biopsy. Clinical impact of both entities on the same patient

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Abstract Text A 63-year-old woman was referred for digestive consultations from the Otorhinolaryngology service to rule out gastroesophageal reflux due to chronic laryngitis. He sometimes reports symptoms of occasional heartburn and dyspepsia, which partially responds to taking proton pump inhibitors. Esophagogastroduodenal transit was performed, with no hiatus hernia or gastroesophageal reflux evident during the examination.
The study was completed with gastroscopy, showing data suggestive of chronic gastritis. Macroscopically, the duodenal mucosa appears normal. Gastric and duodenal biopsies are taken. In the pathological study, the presence of colonization by Helicobacter pylori and intestinal giardiasis trophozoites was observed, without duodenal villous atrophy. [1–3]
Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/59b50797-25c9-49ea-acdd-7429c07a2915/Uploads/13821_Co-infection.mp4
Conflicts of interest Authors do not have any conflict of interest to disclose.
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eP405 EUS-Guided Fine-Needle-Biopsy of Solid Lesions Using a 22G Needle – One size fits all?

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Aims To analyze the capability of a 22G multi-blade three-prong needle to provide a reliable core tissue for histological analysis from solid abdominal and mediastinal tumors and to compare it in pancreatic versus non-pancreatic tumors.
Methods All patients were examined using the Olympus GF-UCT 180 linear echoendoscope and the Hitachi Aloka 750 ultrasound system. Every abdominal and mediastinal lesion was characterized by its size, location, vessel proximity and was sampled by a 22G needle of same size and characteristics. If the initial needle pass with 10-15 forth and back movements and `slow pull` of stylet was unsuccessful in providing a good core tissue for histology, a second pass was performed. Samples were sent for histopathological analysis. Indecisive cases were immunohistochemically stained in addition to hematoxylin-eosin.
Results Sixty-six samples from 60 patients were included in the study. Of them 26 (39.4 %) were female, the mean age was 67.2 ± 14.2 years. The sampled lesions were as follows: pancreas-35; lymph nodes-7; gastric wall-6; liver-5; mediastinum-3; intraabdominal-3; adrenal gland-2; kidney-1; esophagus-1; gastroesophageal junction-1, papilla-1; retroperitoneum-1. Sufficient histology providing final diagnosis was present in 54 (81.8 %) of them. Indecisive diagnosis was observed in 25 (37.9 %) of the cases, all of them 25 (100 %) provided sufficient tissue for immunohistochemical analysis which helped in establishing a final diagnosis. There was a trend towards a more frequent presece of a non-diagnostic tissue in non-pancreatic vs pancreatic tumors (6 (19.4 %) vs 6 (17.1 %)) but the difference was statistically insignificant (OR 1.16 95 % CI 0.33-4.06, p = 0.82).
Conclusions A 22G FNB needle can provide sufficient tissue for diagnosis of solid tumors irrespective of their location. The samples are of good quality both for standard hematoxylin-eosin staining and for immunohistochemical analysis.
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP406 Solid Pseudopapillary Neoplasms – Case Series. A Single Center Experience of a Rare Tumor

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Aims Solid pseudopapillary neoplasm of the pancreas (SPN) is a rare entity first described by V. K. Franz in 1959 and it represents 2 % of all pancreatic exocrine tumors. A small percent (10-15 %) have a malignant behavior. Most affected are women between second and third decade of life. Endoscopic ultrasound fine needle aspiration (EUS-FNA) is the gold standard for perioperative diagnosis. Due to a small amount of cases in the literature the management of this type of lesions is not well defined, there are no clear guidelines. Some patients are overtreated because of the fear of the malignant potential. Our aim was to evaluate the cases in our hospital from diagnosis to treatment and follow-up.
Methods This study was performed between january 2017 and december 2022 at one tertiary referral hospital . We analysed retrospectively a prospective collected database . All patients undergoing EUS-FNA with positive histology for SPN in our Institute were included. Clinical presentation, endoscopic ultrasound appearance, surgery, histology, and long-term outcomes were collected and analysed.
Results During the study period 12 patients with SPN were diagnosed and treated at our Intstitute. All patients were females with the median age of 34.5years (17-58years). The median size of the lesions was 51mm (40-95mm). The most common location was the pancreatic head and the body . The main symptom was abdominal pain (83 %) followed by jaundice (17 %). Two lesions where found incidental. Eleven patients underwent surgery (5 pancreatoduodenectomy, 2 central pancreatectomy , 3 distal pancreatectomy and splenectomy, one spleen preserving distal pancreatectomy). One tumour was inoperable due to invasion of the mesenteric artery. After surgery one patient had an early complication (hemoperitoneum) and two had long term complications (anemia, diabetes). Pathology and immunochemistry: all tumours where positive for vimentin ,beta catenin and progesterone receptor. Synaptophysin was postitive in 10 cases (83 %). Chromogranin was negative in all cases. Ki67 showed a low proliferation index. Two patients recived chemotherapy alone , 5 radiotherapy alone, one chemotherapy and radiotherapy and 4 oncological monitoring without further treatment. The follow-up showed no disease recurrence for the 11 lesions that were resected.
Conclusions SPNs are rare tumours with low malignant potential. EUS-FNA is the gold standard method for the diagnosis. Surgical resection is the best treatment and is associated with good prognosis. Disease recurrence has been reported, long term follow-up is therefore required.
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP407 Comparative Evaluation of Endoscopic Anti-reflux Mucosectomy and Stretta Radiofrequency Ablation in the Management of Gastroesophageal Reflux Disease: Insights from a Retrospective Multi-Center Cohort Study

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Aims Treatment options for Gastroesophageal reflux disease (GERD) that is unresponsive to proton pump inhibitors (PPIs) are still not well-established. This study includes over 400 individuals who underwent anti-reflux mucosectomy (ARMS) or Stretta radiofrequency (SRF) for the treatment of intractable GERD and compares these two therapeutic methods for intractable GERD.

Methods This retrospective study, conducted from 2016 to 2023, evaluated the effectiveness of SRF and ARMS treatments for refractory GERD. The primary measure of success was the change in the GERD questionnaire (GERDQ) score. Secondary outcomes delved into various GERD-related indicators such as endoscopic Los Angeles (LA) classification, Hill's type-based flap valve grade (FVG), EndoFLIP distensibility index (DI), rate of PPI discontinuation, resolution rate of Barrett's esophagus, and incidence of adverse events.

Results The ARMS group included patients with more severe GERDQ scores, FVG, LA grade, and Barret's esophagus. Although both groups showed similar GERDQ score improvements ($P = 0.884$) and rates of PPI withdrawal ($P = 0.866$), the ARMS group exhibited significantly more side effects but also superior results in GERDQ score ($P = 0.011$), FVG ($P < 0.001$), LA grade ($P < 0.001$), EndoFLIP DI ($P < 0.001$), and resolution of Barrret's esophagus ($P < 0.001$).

Conclusions The ARMS group showed greater GERDQ score improvement but had similar symptom relief and PPI discontinuation rates as the SRF group, despite more side effects. Objective measures, including EndoFLIP DI and endoscopic evaluations, were better in the ARMS group. [1–4]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP408 Investigating Occult GI Bleeds with Small bowel Capsule Endoscopy; what have we learnt?

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DOI 10.1055/s-0044-1783697

Aims To assess the incidence of significant findings on SBCE; co-relate them with the haemoglobin levels, the use of antiplatelets/anticoagulant and the use of non-steroidal anti-inflammatory drugs in patients referred with OGIB.

Methods Small bowel capsule data over three years from our centre was reviewed to identify patients referred with OGIB with no identifiable cause on OGD and colonoscopy. Haemoglobin at referral, the use of either anti platelets/anticoagulants as well as the use of NSAIDs were recorded. Results of SBCE of patients identified were analysed and lesions were classified according to the Saurin classification.

Results We identified 83 patients; 56 males and 27 females with an average age of 62.5 years. The average haemoglobin at referral was 9.4g/dl. Of the 83 patients identified, 52 (63 %) patients had a haemoglobin ≤ 10g/dl. Of these 52, the most common finding on SBCE was angiodysplasia (Type 4 to Type 2 lesions) with 48 % (25/52) of findings having a Saurin classification of P2. Of the 52 patients, 20 (38 %) had no identifiable cause of OGIB on their SBCE. Of the 31 patients with a haemoglobin > 10g/dl, the most common finding was angiodysplasia with 39 % having a Saurin classification of p2 while 17 (55 %) had no identifiable cause of OGIB. The odds ratio of finding a significant lesion (Saurin P2) with a Hb ≤ 10g/dl versus a Hb > 10g/dl is 1.5. A significant proportion of this cohort with OGIB (38/83; 46 %) was noted to be on either an anti-platelet and or anti-coagulant. For this sub-group the most common finding on SBCE was angiodysplasia identified in 74 % with 58 %(22/38) having a Saurin classification of P2. Ten patients reported the use of NSAIDs frequently prior to capsule. Of the 10, 6 patients were noted to have gastric and or duodenal erosions or ulcerations on their SBCE with only two patients having a Saurin P2 lesion.

Conclusions In this study, SBCE found a source of bleeding in 55 % of those being investigated for OGIB thus providing a valuable tool for evaluation of this cohort. Overall, patients with a haemoglobin ≤ 10g/dl and those on either an anti-coagulant or anti-platelet were more likely to have a significant finding (Saurin P2) on their capsule with angiodysplasia being the most common finding. Patients on NSAIDs were less likely to have a significant lesion beyond the duodenum, with gastric/duodenal erosion being the most common findin

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP409 Digestive involvement during adult rheumatoid purpura: about 38 cases

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Aims Rheumatoid purpura is a systemic vacuities of small vessels with immunoglobulin A (IGA) deposits, characterized by the association of cutaneous vascular purpura with articular, gastrointestinal signs that can occur in bouts. Renal involvement is sometimes associated with these signs. The prognosis of the disease in the short term depends on the severity of the digestive involvement and in the long term of the renal involvement.
The aim of our study is to determine the clinical, para-clinical and therapeutic characteristics of the digestive involvement in RA in adults.

Methods Retrospective descriptive study of the medical records of hospitalization of 38 patients with RP and followed within the department of internal medicine of the CHU Fattouma Bourguiba Monastir over the period from 2008 to 2021.

Results Were collected 38 patients during the study period. The average age at diagnosis was 50.5 years (14-87). Sixty-five (65.8 %) patients were female, thirty-four (34.2 %) were male.
Digestive involvement was present in 13 patients (34.21 %) with a clear female predominance (84.61 %). The digestive symptoms were: atypical abdominal pain in 53.8 %, epiagstralgia in 38.46 %, vomiting in 15.38 %, digestive hemorrhage in 7.69 %.
The disease was severe in 04 cases, moderately severe in 5 cases, and slightly severe in 04 cases.
Abdominal imaging was normal in 5 cases. For the rest, it showed intestinal parietal thickening and intense mucosal contrast in 03 cases, mesenteric panniculitis in 1 case, and a peritoneal effusion in one case.
Digestive fibroscopy performed in 10 cases was normal in 02 cases, erythematous gastropathy in 07 cases, purpuric lesions in one case.
Treatment with corticosteroids was indicated in 09 cases.
The evolution was marked by a clinical improvement in the week following the introduction of corticoids without the occurrence of surgical or infectious complications.

Conclusions Digestive involvement during rheumatoid purpura in adults remains frequent. Corticosteroid therapy helps to avoid the occurrence of complications.

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eP410 Endoscopic removal of cocaine pellets is safe

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Aims The study aims to prouve that digestive endoscopic removal of cocaine pellets is a safe method, without risk of rupture.

Methods This is a monocentric, observational, retrospective study conducted at the Cayenne Hospital in French Guyana from July 2015 to May 2023. We included patients in whom endoscopy (upper gastro-intestinal endoscopie or colonoscopy) was performed for delayed evacuation despite conservative treatment with Poly-Ethylene-Glycol defined by the presence of pellets on unprepared abdomen X-ray from the 3rd day of hospitalization. Endoscopy was performed only in the presence of pellets at low risk of rupture (type 4 according to the new classification by Pidoto et all in 2002). Exclusion criteria were: transport of drugs other than cocaine, absence of endoscopically visualized pellet.

We collected demographic, imaging, endoscopic and follow-up data.

Results We included 110 patients, 75 % were male. The median age was 25 years. Imaging was performed in 99 % of cases. On the unprepared abdomen X-ray prior to endoscopy, pellets were found mainly in the stomach (28 %), right colon (28 %), left colon (30 %) and sigmoid (31 %). Median time to endoscopy was 3 days (2-4). The median number of bullets extracted endoscopically was 1 (1-4). The material used was mainly endoscopic baskets (60 %). No patient presented any per- or post-endoscopic complications. No pellet ruptured during extraction. There was no sign of cocaine intoxication during or after endoscopy. The success rate of pellet removal was 92 % during the first endoscopy and 100 % during the 2nd endoscopy. [1]

Conclusions In our experience, endoscopic removal of micro-industrially-produced cocaine pellets with a low risk of rupture is a safe and effective method. Endoscopy therefore has a place in the management of these patients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP411 Should upper gastrointestinal endoscopy be systematically performed in patients with Inflammatory Bowel Disease ?

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Aims Understanding the extent of Inflammatory Bowel Disease (IBD) is fundamental for optimal management, while Crohn's disease (CD) can affect all the gastro-intestinal tract, ulcerative colitis is localized in the rectum and colon. This study investigates the potential utility of systemic gastroscopy in IBD patients.

Methods Utilizing data from our gastroenterology department, we performed a retrospective cohort study. encompassed patients diagnosed with IBD who underwent systematic upper gastrointestinal endoscopy (UGE). Clinical, endoscopic, and histopathological data were gathered and analyzed.

Results A total of 141 individuals diagnosed with Crohn's disease (CD) and 61 with ulcerative colitis (UC) were part of this study. The average age was 40.7 years, and there was a female-to-male ratio of 1.33. Notably, 95.5 % of these patients reported no upper gastrointestinal symptoms prior to upper gastrointestinal endoscopy (UGE). For those with symptoms, dyspepsia and pyrosis were the most reported. Results showed that 73.9 % of patients without symptoms had a normal mucosa during UGE, in the other cases, the following abnormalities were observed: non-specific gastro-duodenal erosions and ulcerations (8.5 %), mild esophagitis (4 %), aphthoid ulcerations (2 %), and duodenal stenosis (0.5 %). In symptomatic patients, UGE findings varied, ranging from normal results in 4 cases to atrophy of the fundus mucosa in 1 case, esophageal hernia in 2 cases, and esophageal aphthoid ulcerations in 1 case. Systematic gastro-duodenal biopsies showed: lymphoplasmacytic infiltrate (47.7 %) and Helicobacter pylori (HP) presence (38.1 %) in asymptomatic patients, while in symptomatic patients, fundic metaplasia (0.5 %), lymphoplasmacytic infiltrate (2.5 %), HP presence (2.4 %), duodenal villi atrophy (0.5 %), and glandular atrophy (0.5 %) were observed. The study's analysis didn't establish significant associations between endoscopic lesions and UC ($p = 0.36$) or CD ($p = 0.09$), however, a notable association was found between male gender and the presence of endoscopic lesions ($p = 0.033$).

Conclusions Even though patients with IBD might not show any symptoms, conducting UGE and histopathological examinations could uncover upper gastrointestinal lesions. These findings significantly contribute to the comprehensive assessment and management of IBD.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP412 Endoscopic ultrasound-guided radiofrequency ablation of pancreatic tumors- initial experience of single center

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Aims The mainstay treatment for pancreatic tumors is surgery. However adverse events and post -operative mortality are a concerning issue. Endoscopic ultrasound-guided radiofrequency ablation/EUS RFA/ is a novel technique for local destruction, applicable for pancreatic neuroendocrine tumors /PanNEN/, locally advanced adenocarcinoma and cystic pancreatic neoplasms.Our aim was to evaluate the technique in terms of efficacy and safety. Primary endpoint was complete response rate defined as disappearance of lesions or no signs of vital tissue on imaging studies during follow up. The secondary endpoint was the assessment of adverse events/AE/ associated with the procedure.

Methods Retrospective analysis of a prospective database including all consecutive patients who were treated with EUS RFA for the period August 2022 – October 2023 in a single tertiary center. We evaluated electronic patient records and gathered data on patients' baseline characteristics, procedure characteristics and outcomes.The follow up of the group included imaging studies/computed tomography and contrast enhanced EUS/ done on the third and on the sixth month after the procedure.

Results Eight sessions of RFA in five patients were performed. Male to-female ratio 3:2, the mean age was 72.2 years. The procedures were performed with EUS–guided RFA 19 G Needle. The group included three patients with neuroendocrine tumors – two with non-functional pNEN – G1 grade of differentiation and one with insulinoma;one patient with metastasis from renal cell carcinoma, and one patient with pancreatic ductal adenocarcinoma. The mean size of the lesions was 22mm ± 10.06mm. The technical success rate which we defined as successful puncture of the lesion and application of alternating current was 100 %. Clinical success at the 6th month was achieved in 80 % of the patients. In three of the patients, we performed a second session on the third month during follow-up. We found no correlation between response rate and functional status of neuroendocrine tumors as well as no association of procedure outcome and location of lesions. In terms of efficacy, we found a negative correlation between lesion size and response rate. We observed the resolution of symptoms due to hormonal hypersecretion in the case of insulinoma in the first 24 postprocedural hours with no events of hypoglycemia. No early or late adverse events were reported in the observed group

Conclusions EUS RFA is highly effective and safe mini-invasive technique for treating pancreatic tumors, especially PanNENs.It could be offered to selected patients as an alternative to surgical treatment for patients with neuroendocrine tumors and cystic lesions according to published studies.The procedure can be applied as an adjunctive treatment to locally advanced ductal adenocarcinoma but more data are needed.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP413 Endoscopic Mucosal Resection (EMR) in Treatment of Colitis Associated Neoplasia (CAN): A Single-Centre Experience From Leuven, Belgium

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DOI 10.1055/s-0044-1783702

Aims Endoscopic resection has been recommended as preferable therapeutic approach for colitis associated neoplasia (CAN) in inflammatory bowel disease (IBD) patients. However, endoscopic resection of these lesions can be challenging due to ongoing inflammation, mucosal scarring, and submucosal fibrosis. We report long-term, single centre experience on performance of endoscopic mucosal resection (EMRs) for treatment of CANs .

Methods Hospital electronic database was searched in order to identify all the patients diagnosed with CANs in period 01.01.2009-30.09.2023. Data on the lesion characteristics, therapeutic approach, treatment outcomes and follow-up were collected and used for the descriptive analysis.

Results During the study period 32 CANs have been treated with EMR in 19 patients. Mean diameter of the lesion was 18.2 ± 9.09mm (8-50mm). Nine lesions were removed en-bloc (28.1 %) while 23 (71.9 %) were removed piece meal. One EMR (3.1 %) was associated with post-procedural bleeding, which was treated endoscopically by the use of caograsper. Another 2 EMRs (6.2 %) were associated with intraprocedural perforations which were resolved by placement of the endoclips. Histopahtological examination disclosed adenomas with low grade dysplasia in 19 lesions (59.4 %), adenomas with high grade dysplasia in 7 lesions (21.9 %), sessile serrated lesion with high grade dysplasia in one lesion (3.1 %) and sessile serrated lesion without dysplasia in 4 lesions (12.5 %). One lesion (3.1 %) was identified as adenocarcinoma with deep submucosal invasion and patient was referred to surgery. All the other patients were subjected to follow-up, during which 4 cases of local recurrence at the site of resection were observed (12.5 %), of which 3 were treated with new EMR while one was referred to surgery. Apart from recurrent lesions, six metachronous CANs were observed during the follow-up in 3 patients (15.8 %), all removed by EMR and included in this analysis. All together 2 out of 19 patients (10.5 %) included in the study underwent colorectal surgery for CAN treatment.

Conclusions EMR appears to be safe and effective in treatment of CAN both in terms of short and long-terms outcomes, as well as need for surgery during the follow-up.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP414 Efficacy of a novel hemostatic peptide gel (PuraStat) in preventing bleeding after endoscopic resection of large gastrointestinal lesions: a case series study

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Aims A novel synthetic self-assembling peptide (PuraStat; 3-D Matrix, Tokyo, Japan) has been introduced as a hemostatic agent [1]. This case series aimed to evaluate the clinical efficacy of PuraStat for the prevention of bleeding after endoscopic resection of large gastrointestinal (GI) lesions.

Methods We retrospectively examined all endoscopic resections of > 20 mm lesions using Purastat between April 2019 and November 2023. Patient clinical data, endoscopic procedure data and follow up data were collected. Purastat was applied after endoscopic resection for the prevention of post-procedural bleeding. Post-procedural bleeding was defined as any bleeding occurring after the completion of the procedure necessitating emergency department presentation, hospitalization, or reintervention.

Results Sixty-three consecutive patients (31 females, mean age 67.1 ± 13.4) were collected. Upper GI lesions were removed in 15 patients, lower GI lesions were removed in 59 patients. Lesions were resected by polipectomy in 22.2 % (14/63 patients), EMR in 76.2 % (48/63 patients), ESD in 1.6 % (1/63 patient). Mean size of resected lesions was 30 ± 14mm. Technical success was achieved in 98.3 % (62/63 patients). When Purastat was successfully applied, post-procedural bleeding occurred in 6.4 % (4/62 patients). Multivariate analysis showed no significant association between post-procedural bleeding and clinical or endoscopic procedure data.

Conclusions This is the first report of the use of PuraStat in the prevention of bleeding after endoscopic resection of large GI lesions. This novel peptide gel could represent a promising hemostatic device. However, further prospective studies are needed to confirm its efficacy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP415 Beyond expectations: Tapeworm-related upper gastrointestinal bleeding in excluded duodenum

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Abstract Text A 50-year-old female patient, one year post Roux-en-Y gastric bypass surgery, was hospitalized for persistent melena. After negative upper and lower endoscopies, capsule endoscopy revealed hematic residues in proximal jejunum. Initially suspected at Roux-en-Y anastomosis, subsequent double-balloon enteroscopy ruled out active bleeding in gastric pouch and jejunal limb, including surgical anastomosis. A translucent filament, resembling a tapeworm's neck, was observed in alimentary limb extending from Y-roux anastomosis. Retrograde intubation of afferent limb confirmed its presence, reaching proximally into duodenum, where oozing active bleeding ulcer was identified. Due to absence of visible vessel, Hemospray was used and no mechanical treatment was applied. We present a case of upper gastrointestinal (GI) bleeding from excluded duodenum associated with a tapeworm infection.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP416 Factors affecting the quality of bowel preparation for colonoscopy during exploration of chronic constipation

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Aims Colonoscopy stands as the gold standard method for exploring chronic constipation, especially when alarm signs are present. Therefore, optimal colonic preparation is crucial. Our study aims to identify predictive factors associated with inadequate colonic preparation in patients with chronic constipation.

Methods This retrospective study included all patients who underwent colonoscopy for exploring chronic constipation over a four-year span at a digestive endoscopy unit at CHU Sahloul Sousse. Polyethylene glycol (PEG) was used for colonic preparation in all patients. The quality of colonic preparation was assessed using the Boston Bowel Preparation Scale, with preparation considered inadequate if the Boston score was strictly below 7.

Results A total of 308 patients were included, with an average age of 49 years (range: 17-81 years). The rate of complete colonoscopies was 42.5 %. The median Boston score was 5.8 ± 1.61. In 64.2 % of cases (N = 198), the Boston score was < 7. Endoscopic findings revealed colonic polyps in 23.4 %, rectal polyps in 8.4 %, colonic diverticulosis in 17.5 %, colorectal neoplasms in 9.7 %, right colonic lipomas in 4.5 %, and angiodysplasia in 1.3 % of cases. Univariate analysis identified rectal bleeding (p = 0.011), colonic polyps (p = 0.22), right colonic lipomas (p = 0.24), and colorectal neoplasms (p = 0.035) as predictive factors for inadequate preparation. Neither age nor gender emerged as predictive factors for poor preparation.

Conclusions This retrospective analysis revealed suboptimal colonic preparation in 64.2 % of cases, with complete colonoscopy achieved in 42.5 % of patients referred for chronic constipation exploration. Factors significantly associated with inadequate preparation included rectal bleeding, presence of colonic polyps or neoplasms, and right colonic lipomas. Therefore, emphasizing a clear explanation of preparation procedures, ideally supported by written explanatory documentation, is crucial.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP417 Helicobacter Pylori Gastritis: Clinical, Endoscopic and Histological features

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Aims Helicobacter pylori (HP) is a bacteria that plays a central role in the development of various gastrointestinal conditions, including gastritis, which can progress to gastric or duodenal ulcers and gastric adenocarcinomas. The aim of our study is to investigate the epidemiological, endoscopic, and histological aspects of HP-associated gastritis.

Methods This is a single-center study conducted over a 15-month period, including all patients who presented symptoms warranting an upper gastrointestinal endoscopy with gastric biopsies. At least four gastric biopsies were performed, and the Sydney classification was used for histological evaluation.

Results We included 361 patients with a male-to-female sex ratio of 0.8. The mean age was 52 years [9-92]. Upper gastrointestinal endoscopy was indicated for epigastric pain (49.3 %), dyspepsia (16.3 %), iron-deficiency anemia (11.6 %), vomiting (6.1 %), bleeding (4.4 %), vitamin B12 deficiency (2.5 %), and other symptoms in 9.8 % (dysphagia, abdominal pain, diarrhea, etc.). Endoscopy revealed pathological findings in 96.1 % (N = 347) of cases: erythematous gastropathy in 39.6 % of cases, nodular appearance in 23 %, congestive changes in 14.7 %, and atrophic changes in 5.6 %.

Histologically, the most common finding was chronic gastritis in 99.2 % of cases, mainly affecting the antrum and fundus (61.5 %), with moderate activity in 52.7 % of cases. HP infection was detected in 82.8 % of cases. The density of bacterial colonization was minimal (+) in 29.1 % of cases, moderate (+ +) in 40.9 % of cases, and severe (+ + +) in 30.1 % of cases. Gastric atrophy was observed in 27.1 % of patients, predominantly located in the antrum (57.1 %). Intestinal metaplasia was present in 15.5 % of cases, primarily in the antrum (55.4 %).

Correlation analysis revealed a significant association between the nodular endoscopic appearance and the presence of HP on histology (p = 0.02), while clinical symptoms did not predict the nature of endoscopic lesions or histological abnormalities. Gastritis activity was significantly correlated with the density of HP colonization (p < 0.001).

Conclusions In our study, the majority of gastritis cases were associated with H. pylori infection. Despite the essential role of histological examination, the endoscopic appearance can be predictive of microscopic abnormalities.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP418V Customized approach to Z-POEM for the management of Zenker's diverticulum

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Abstract Text Remnant mucosal septum-limitation of Z-POEM. Clinical C/I to use of monopolar diathermy limits 3rdspace endoscopy. We report 2 unique cases of symptomatic Zenker's diverticulum(ZD) treated using a customized approach to circumvent technical challenges. Case1: 75/M,Technical challenge: long, thick, tortuous ZD. Modification: Sequential mucosal incision, submucosal dissection&myotomy from roof till apex of diverticulum. Open technique to eliminate risk of residual dysphagia due to mucosal septum. Case2: 78/M, Parksinosn's disease, ZD. Technical challenge: Presence of Deep Brain Stimulation implant–C/I to use monopolar diathermy-risk of device malfunction. Modification: Novel device-bipolar radiofrequency & microwave energy. Outcome: Symptom relief, no hold up of contrast on post op swallow study in both patients.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/5d249116-8b32-46d6-bb9d-00e53d6feb6a/Uploads/13821_Z-POEM_ESGE%202024.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP419 Factors predicting the presence of large esophageal varices in cirrhotic patients: 7 Years' Experience of a Tertiary Care Hospital in eastern Morocco

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Aims Variceal hemorrhage stands as a significant contributor to morbidity and mortality in cirrhosis. While primary prophylaxis with nonselective beta-blockers and endoscopic band ligation can mitigate the risk of variceal bleeding, the expense and invasiveness of endoscopic screening have sparked interest in developing a noninvasive approach to predict the presence of large varices. The objective of this study was to ascertain predictive factors for the presence of large esophageal varices in our population.

Methods Out of 243 cirrhotic patients under our department's care from January 2016 to June 2023, 100 patients had no history of variceal bleeding (42 %). Among them, 14 patients had no esophageal varices, while 86 patients had esophageal varices. We categorized patients based on the presence or absence of high-risk varices (HRV), defined as those with a medium to large caliber and the presence of red spots. Clinical, laboratory, and radiological factors were examined as potential predictors of HRV. Univariate and multivariate Cox proportional hazard regression tests were employed to identify predictor factors for the presence of HRV. Data analysis was conducted using SPSS 23.0 software.

Results We enrolled 100 patients with liver cirrhosis, with an average age of 58 years and a male-to-female sex ratio of 0.6. The most common etiologies were cryptogenic cirrhosis and viral hepatitis C, accounting for 34 % and 21 %, respectively. Among the patients, 61 % had ascites, 22 % had portal thrombosis, and 16 % presented with neurological decompensation and hepatocellular car-

cinoma each. Gastroscopy revealed no esophageal varices (EV) in 14 patients, while 86 patients had esophageal varices, with 54 % having small EV and 46 % having high-risk varices (HRV).
Upon multivariate analysis, only platelet count was identified as an independent predictor of large esophageal varices (p: 0.023). Other parameters, including prothrombin value, bilirubin, albumin, Fib-4 index, APRI score, portal vein diameter, and spleen diameter, did not show statistical significance.
In the overall analysis, the area under the curve (AUC) for platelet count in predicting HRV was 0.285. The optimal cutoff point for platelet count in predicting HRV was 100,000/mm3, with corresponding sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) of 28.2 %, 38.3 %, 28.6 %, and 60 %, respectively (p: 0.02).
Conclusions In summary, our study confirms that a platelet count of < 100,000/mm3 is the sole predictive factor for high-risk varices, consistent with findings from prior research.
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP420 A Second Colonoscope Help to Release an Incarcerated Colonoscope during Colonoscopy: an Effective New Method Report

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Abstract Text A 61-year-old man was receiving colonoscopy, however, colonoscope could not be advanced or withdrawn at approximately 70 cm. Then, the endoscopist was informed that the patient had an inguinal hernia. Incarceration of colonoscope was suspected. The patient was transferred to the fluoroscopy room immediately.Under fluoroscopy, a loop of colonoscope was seen in the hernia. The colonoscope could not be withdrawn directly while the loop of the scope within the hernia sac was in α − shape or a U-shape, because traction on the scope resulted in straightening the proximally created loops first. An alternative technique of removal was used successfully. At the proximally created loops first, we introduced second colonoscope as a pulley. Then, the incarcerated colonoscope was slowly and smoothly withdrawn without incident. [1–3]
Conflicts of interest Authors do not have any conflict of interest to disclose.
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eP421 Systematic catheterization of the terminal ileum :what is the diagnostic contribution?

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Aims Ileo-colonoscopy is the key examination for exploring the terminal ileum. Nevertheless, the utility of systematic catheterization of the terminal ileum (TI) with biopsies remains controversial. The aim of our study is to investigate the relevance and outcomes of systematic catheterization of the TI with sampling during complete colonoscopy.
Methods This is a retrospective study over 4 years, including all patients who underwent complete colonoscopy with TI catheterization whenever possible, regardless of the indication for colonoscopy.
Results Out of a total of 508 colonoscopies, TI catheterization was performed in 110 cases (21.65 %). The mean age of our patients was 50 years [17-89 years]. There were 56 females (50.9 %) and 54 males (49 %), with a sex ratio of 1.03. The most frequent indications for colonoscopy were chronic diarrhea (58.2 %), abdominal pain (21.8 %), alternating diarrhea-constipation (10.2 %), rectal bleeding (9.1 %), general health deterioration (5.5 %), chronic constipation (5.5 %), and melena (1.8 %). TI abnormalities were observed in 78 patients (70.9 %). These included erythematous ileitis in 21.8 % (N = 24), nodular appearance in 13.6 % (N = 15), cecal retraction in 8.18 % of cases (N = 9), tumoral process in 2.27 % (N = 3), and lipomatous appearance of the valve in 3.6 % of cases (N = 4). A stenosis of the terminal ileum was noted in 20.9 % of cases (n = 23). Histological analysis of ileal biopsies concluded Crohn's disease in 55 % of cases, ileocecal tuberculosis in 10.1 % of cases, ileal adenocarcinoma in 2 cases, and non-specific acute ileitis in 34 % of cases.
Conclusions Considering its low diagnostic yield, the decision for systematic ileal intubation during colonoscopy should be made on a case-by-case basis. However, it should be performed as often as possible, especially if Crohn's disease is suspected.
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP422V Yeyuno-ileal diverticulosis: a rare cause of hemorrhagic shock

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Abstract Text Approximately, 5-10 % of gastrointestinal bleeding comes from the small bowel. Rarer is haemorrhage related to jejunoileal diverticulosis (0.06-5 %). An 80 years-old-man presented melena and massive transfusion was needed. In EGD, duodenal ulcers Forrest IIc and III were observed. After 24h, the patient persisted with hemodynamic instability. CT scan revealed an active contrast extravasation in jejunum, hence, superselective embolization was performed. Due to the uncommon localization of bleeding, capsule endoscopy was completed. Jejunal diverticula with an ulcer with fibrin was found. The patient had no further bleeding and was discharged after close monitoring. Although most of patients with jejunal-ileal diverticulosis are asymptomatic, haemorrhage is a potentially fatal complication. Suspicion must be raised in elderly men and capsule endoscopy constitutes a valid and non-invasive diagnostic test. [1–3]
Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/e86776ca-44a3-4105-80de-21a23c257a11/Uploads/13821_An_uncommon%20cause%20of%20hemorragic%20shock%20jejuno-ileal%20diverticulosis.mp4
Conflicts of interest Authors do not have any conflict of interest to disclose.
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eP423 Solitary rectal ulcer syndrome: A case series study

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Aims Solitary rectal ulcer syndrome (SRUS) is an uncommon and misdiagnosed defecation disorder. Endoscopic features are various and may overlap with all rectal affections. For instance, it can mimic malignant tumor or inflammatory bowel disease. The therapeutic approach is based on conservative management with topical therapy and biofeedback, while surgical attitude should be preserved for refractory cases. the aim of this study was to describe the clinical, endoscopic and histological features as well as therapeutic outcome of SRUS.
Methods We conducted a retrospective unicentric study between January 2014 and October 2023. complaints, endoscopic features of patients with histologically proven SRUS were collected and analysed and so therapeutic management. Endoscopic assessment of therapeutic efficacity was performed to search mucosal healing.
Results A total of 15 patients were included with a mean age of 62-year-old and a sex-ratio M/F of 3. Medical history included rectal surgery in 13,3 %. Most of patients presented with constipation (86,6 %) and lower gastrointestinal bleeding (66 %). Dyschezia was found in 66,6 %. Regarding, endoscopic findings, solitary lesions and multiple ulcerations was described in 60 % and 20 % respectively. Anterior rectum location was described in 53,3 % of cases. Among the patients, 20 % of cases had a rectal suspect masse and 6,6 % had an inflammatory bowel disease- like aspect. The mean follow up was 26 months and ranges from 2 to 96 months.
At histology, obliterated lamina propria with collagen, crypt distortion and inflammatory infiltrates was seen in 66,6 % ,80 %, 86,6 % respectively.
Conservative treatment was based on high-fibre diet, laxatives, change of defecatory habits in all patients. Symptomatic improvement was achieved in 80 % of cases and healing of mucosal lesion in 20 % of cases. Biofeedback was performed in two patients whom achieved mucosal healing. Surgical treatment was not indicated in any patients.
Conclusions SRUS is a benign defecation disorder with heterogenous clinical spectrum. Awareness of this syndrom allows to improve the diagnosis through endoscopy and histologic confirmation and so to adapt treatment with a guided lifestyle and pelvic floor biofeedback. Further studies are needed to optimize the management and to offer a stepwise individualised approach.
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP424 Use of artificial intelligence device in colorectal cancer screening colonoscopies. Experience in a second-level hospital

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Aims Colonoscopies often miss lesions, a fact associated with interval cancer. Artificial Intelligence (AI) devices could enhance this performance.
To compare differences in the adenoma detection rate (ADR) between conventional colonoscopies and AI-assisted ones. Secondary objectives included comparing ADR differences by segments, the mean number of adenomas per colonoscopy (APC) globally and by segments, and the mean exploration time (MET).
Methods Prospective and randomized study over six months. Inclusion criteria: colonoscopy indicated after a positive FOBT and Boston ≥ 6. Randomization into two groups: conventional colonoscopy (G1) or AI-assisted colonoscopy (G2). An AI device was used to highlight mucosal alterations visually compatible with polyps.
Results 227 patients included: 115 in G1 and 112 in G2. ADR in G1 was 60.9 %, in G2 57.1 %, with no statistically significant differences (p = 0.568). APC was 1.42 (SD: 1.947) in G1, 1.23 (SD: 1.495) in G2, with no statistically significant differences (p = 0.423).
By segments, ADR was: right colon 26.1 % in G1, 27.7 % in G2 (p = 0.787); transverse colon 15.7 % in G1, 11.6 % in G2 (p = 0.375); left colon 44.3 % in G1, 43.8 % in G2 (p = 0.928). APC was: right colon 0.43 in G1, 0.42 in G2 (p = 0.956); transverse colon 0.23 in G1, 0.18 in G2 (p = 0.529); left colon 0.70 in G1 and 0.78 in G2 (p = 0.661).
MET was 22 minutes in G1 and 21.94 minutes in G2, with no statistically significant differences (p = 0.960).
Conclusions In our setting, the use of AI in screening colonoscopies did not modify ADR or APC. One explanation could be that the device used does not distinguish between mucosal patterns (NICE). Nevertheless, not extending the exploration time could make it a useful tool, although more studies are needed.
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP425 TITLE : MickeyPEG – short and sweet

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DOI 10.1055/s-0044-1783714

Aims Conventional long tube for enteral nutrition placed by pull method may not be suitable for some persons – unable to open mouth, strictures or growth in upper aerodigestive tract, active lifestyle(athelets, children, office employees), altered sensorium with pulling of tubes, worried about tube hygiene.In these,MickeyPEG alternative modality.This study aims to evaluate the safety,-feasibility and short-term outcomes(tube related,patient related)of MickeyPEG.
Methods Consecutive individuals unfit for pull method or want alternative are enrolled during the period Dec 2022 to NOV 2023.MickeyPEG tube is placed by push method. Fluoroscopy, ultrasound or endoscopic(thin scope)guidance as required is used for placement.Procedural details, adverse events, post procedure events, follow up data collected and analysed
Results 16 individuals are enrolled in the study(12 initial placement,4 replacement).Out of 4(1F,3M)replacements 3 are conventional long tubes(discomfort,tube hygiene)are replaced with MickeyPEG and one MickeyPEG(20Fr)to MickeyPEG(24Fr).Average MickeyPEG size used is 3.5cms.Maximum follow up period of 11 months.No procedural difficulties during replacement noted.Adverse events(pain,infection at tube site or tube leak,tube block)are none.Patient satisfaction is good. [1–2]
12 individuals have initial placement by push method using T fasteners. .All are male(10 upper aerodigestive malignancies, 2 dementia with agitated state). Out of 10 malignancies 2 are post surgery complex strictures.Compared to conventional pull method,deployment of MickeyPEG needs more time(T fasteners,serial dilatation of tract,placement of PEG through sheath).Technical success is 100 %.No adverse events(bleeding,perforation,maldeployment) noted during procedure.Post procedure 2 individuals had mild pain abdomen which subsided in 24hrs.Clinical success is 100 %.Feed related events(leak,block or vomitings)are none.One individual had infection at PEG site which subsided with local dressing and antibiotics.Maximum follow up period is 11 months.One had replacement after 4 months due to balloon rupture and leak.Patient related events(discomfort,pain,fever,dissatisfaction)are none during the follow up
Conclusions MickeyPEG appears to be safe,effective and user friendly in a selected group requiring enteral nutrition. It can be used for initial placement or replacement for those who doesn't want dangling tubes.
Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP426 Traditional Biomarkers And Pancreatic Cancer: There Is Still A Role In The Molecular Era?

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Aims As known, the overall survival and the prognosis of patients with pancreatic cancer (PC) remain poor as most of the cases are diagnosed at advanced stages due to the lack of specific symptoms and biomarkers.Serum carbohydrate antigen 19-9 (Ca19-9) is used to monitor response to treatment and identify patients with poor prognosis, but its value as a screening or early diagnostic tool remains controversial. New blood-based biomarkers such as cell-free DNA, exosomes, and circulating tumor cells are currently being investigated for monitoring response to treatment but they are far from be included in clinical practice.The aim of our study is to evaluate the role of traditional serum biomarkers in the management of PC patients staged by both Computed tomography (CT) and Endoscopic ultrasound (EUS).

Methods Medical records of 36 patients with a radiologically and endoscopic proven mass in the head/uncinate process of the pancreas were retrospectively reviewed.We considered tumor size, tumor stage (according to the TNM system) and serum biomarkers measured before any biliary drainage: direct bilirubin, aminotransferases, γ-glutamyltransferase (GGT),alkaline phosphatase (ALP) and Ca19-9 levels.To analyze the relationship of biomarkers serum concentrations with tumor stage the Kruskall Wallis test was used. Spearman's rank correlation coefficient was used to assess the association between tumor size and both Ca19.9 and direct bilirubin levels. We investigated the agreement between CT and Endoscopic Ultrasound EUS using the Bland Altman plot analysis.

Results Among 36 cases of PC, 5 were staged as stage I, 11 as stage II, 11 as stage III and 9 as stage IV. Tumor stage was significantly associated to GGT ($p < 0,01$),ALP ($p = 0,03$) and Ca19.9 ($p < 0.01$) levels but not to direct bilirubin ($p = 0.8$) nor to aminotransferases levels ($p = 0.07$). CT and EUS showed a low agreement in estimating the tumor size (mean difference: 4.9 mm with 95 % limits of agreement -8.57-18.38). We did not find any statically significant correlation neither between CT tumor size measurement with Ca19-9 ($r = 0.3$, $p = 0.06$) and direct bilirubin levels ($r = 0.3$, $p = 0.1$) nor between EUS tumor size measurement with CA19.9 and direct bilirubin levels ($r = 0.3$,$p = 0.1$; $r = 0.02$,$p = 0.9$, respectively). CA19.9 and bilirubin levels appeared not to be correlated ($r = -0.03$, $p = 0.8$).

Conclusions Ca19-9 levels depend on the general amount of neoplastic tissue, including primary tumor and metastatic cells in lymph nodes or distant organ; this may be the reason why Ca19-9 levels are related with PC stage but not with tumor size in our study. Differently from previous reported, we showed that also baseline levels of GGT and ALP are associated with PC stage,whilst bilirubin levels seem not to be influenced by tumor size or tumor stage probably because the cancer localization in the head/uncinate process was responsible for biliary tree compression regardless of their size. These results were not influenced by staging technique. Thus, we think that even in the modern era traditional biomarkers help physicians in the management of such an insidious disease, specifically as prognostic tools. [1–3]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP427 Quality indicators during Endoscopic Retrograde Cholangiopancreatography (ERCP): Tunisian center's experience

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Aims The endoscopic retrograde biliopancreatic catheterization procedure holds a significant role in the therapeutic management of biliary and pancreatic pathologies, mainly dominated by lithiasis and tumoral strictures. To ensure the success of this endoscopic procedure and prevent known complications, the ESGE recommends adapting performance criteria. Our study aims to assess the applicability of these quality criteria in routine practice.

Methods This retrospective study spans a period of 1 year, encompassing all patients who underwent Endoscopic Retrograde Cholangiopancreatography (ERCP).

Results A total of 62 procedures were performed during this period. 1) The indication for ERCP was deemed appropriate in 100 %. 2) Antibiotic prophylaxis was administered in 100 % of cases. 3) Cannulation of the Main Biliary Duct (MBD) was achieved in 85,6 % cases. The stone extraction rate was 90,1 %. 4) The success rate of stent placement in cases of biliary obstruction was approximately 71,45 %. 5) Post-ERCP acute pancreatitis was observed in 9,7 % cases.

Conclusions Our center adhered to quality criteria in 60 %. This current list of quality performance measures for ERCP recommended by the ESGE could be expanded in the future to address other clinical and scientific issues, such as operator experience and the number of procedures performed annually.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP428V Multidisciplinary management of a rare case of obstructive jaundice

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Abstract Text 47-year-old man affected by diaphragmatic laceration due to road trauma in 2007, after 15 years developed an episode of cholestasis and jaundice. Oral steroid therapy was started without any clinical benefit. After a multidisciplinary evaluation, it was decided to perform surgery to repair the diaphragmatic hernia. Unfortunately, patient underwent ERCP due to the persistence of jaundice. Cholangiography showed an angled VBP at the hilar confluence causing stricture of the common hepatic duct. Sphincterotomy was performed with placement of both a biliary and pancreatic plastic stent. 20 days later, the chest drainage had biliary contents. He performed percutaneous cholangiography showing extravasation of contrast dye from CBD, so an external-internal biliary catheter was placed and subsequently replaced by an internal plastic stent with an endoscopic-radiologist rendez-vous.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/b528c5f1-c936-4f96-b865-3142f2c6d3c6/Uploads/13821_Post-traumatic_obstructive%20jaundice.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP429 Results and associated factors of endoscopic treatment of large bile duct stones and choledocholithiasis

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Aims Endoscopic biliary sphincterotomy is effective in treating choledocholithiasis. However, its results can be limited by the presence of gallstones. Our work aims to evaluate the effectiveness of endoscopic retrograde cholangiopancreatography (ERCP) in patients with a large obstructive gallstone measuring more than 15mm and patients with a choledochal entrapment. This can lead us to identify the factors influencing endoscopic drainage as well as its complications in the management of large bile duct stones.

Methods Endoscopic biliary sphincterotomy is effective in treating choledocholithiasis. However, its results can be limited by the presence of gallstones. Our work aims to evaluate the effectiveness of endoscopic retrograde cholangiopancreatography (ERCP) in patients with a large obstructive gallstone measuring more than 15mm and patients with a choledochal entrapment. This can lead us to identify the factors influencing endoscopic drainage as well as its complications in the management of large bile duct stones.

Results Patients with a large gallstone (group I) represented 14.1 % (n = 143) of all patients included. Group II included 868 patients (85.9 %). The success rate after a single catheterization was 55.2 % in group I versus 81 % in group II (p < 0.001). 14.7 % of patients in group I were reoperated versus 8 % in group II (p = 0.009). Additional treatment procedures were performed in 46.2 % of cases in group I versus 16.1 % in group II. The overall success rate after recovery of the patient and/or additional treatment procedures was 88.7 % in group I versus 92.5 % in group II (p = 0.125). The overall rate of early complications was 10.5 % in group I versus 5.1 % in group II with a statistically significant difference between the two groups (p = 0.017).

In univariate analysis, the factors that significantly reduced the overall success of endoscopic treatment were: age, cholangitis, the presence of CBD stenosis, or significant dilation of it (diameter greater than 15mm). In multivariate analysis adjusting for the factors studied (age, sex ratio, surgical history, acute pancreatitis, acute cholangitis, peri-ampullary diverticulum, diameter of the CBD, choledochal stenosis): Only the presence of acute cholangitis (OR: 0.295 CI 95 %: [0.164 – 0.532] p < 0.001) and the presence of CBD stenosis (OR: 0.53 95 % CI: [0.922 – 1.051] p: 0.001)) were statistically significantly associated with decreased overall success of endoscopic treatment.

Conclusions No statistically significant difference in the effectiveness of endoscopic treatment of patients with a large gallstone and those with simple lithiasis. Cholangitis and CBD stenosis appear to be factors associated with reduced overall success of endoscopic treatment.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP430 Factors Associated with Failure of Endoscopic Extraction of Main Bile Duct Lithiasis: A Tunisian Center's experience

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Aims Conventional treatment of main bile duct (MBD) lithiasis typically involves endoscopic sphincterotomy (ES) followed by stone extraction using a balloon and/or Dormia basket, enabling clearance of the main bile duct in 85 to 95 % of cases. Several risk factors have been identified as associated with the failure of MBD stone extraction. This study aims to identify these factors associated with such failure.

Methods A retrospective study was conducted at the Gastroenterology department of the University hospital center, Sahloul, Sousse including patients presenting symptomatic MBD lithiasis who underwent endoscopic retrograde cholangiopancreatography (ERCP). Choledocholithiasis was defined by the presence of multiple calculi (more than 3), and large calculi by obstructive lithiasis larger than 15 mm.

Results 68 patients were included during the study period. The mean age was 52 ± 12,5 years. Forty females (58,8 %) and twenty-eight males (41,17 %) were included, with a sex ratio of 1,42. ERCP indications included cholangitis in 10 cases (14,7 %), acute biliary pancreatitis in one case (1,47 %), and hepatic colic in 39 (57,35 %). Calculi sizes ranged between 7 and 20 mm. The MBD was dilated in 55 cases with an average diameter of 13,1 ± 3,5 mm. MBD catheterization was performed in 89 % of cases. Abnormal bile duct anatomy was observed in 4 cases. Infundibulotomy was required in 50 cases. The success rate of endoscopic treatment was 84,4 %. The overall complication rate was 10,29 %. Complications included acute pancreatitis in 5,88 % of cases, duodenal perforation in two cases, and non-severe gastrointestinal bleeding in one case. Factors associated with extraction failure were unsuccessful catheterization (p = 0.001), MBD stenosis (p = 0.001), impacted calculi (p = 0.002), previously operated patient (p = 0.003), parapapillary diverticulum. There was no correlation between age, sex, presence of cholangitis, pancreatitis, abnormal papillary anatomy, and failure of calculus extraction.

Conclusions In our series, ES achieved MBD clearance in 84,4 % with a complication rate around 10,29 %. In cases with predictive failure factors, considering new endoscopic techniques (macro dilation, stenting, lithotripsy) is advisable.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP431 Cold Endoscopic Mucosal Resection (c-EMR) Of Non-Pedunculated Colorectal Polyps ≥ 20 mm: A Systematic Review And Meta-Analysis

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Aims There is increasing evidence that cold EMR (c-EMR) can effectively treat large colorectal polyps. We aim to appraise the current literature and evaluate outcomes following c-EMR for non-pedunculated colonic polyps ≥ 20 mm.

Methods Major databases were searched. Primary outcomes included recurrence rate and adverse events. Meta-analysis was performed using a random effects model.

Results Nine articles were included in the final analysis which included 817 patients and 1,077 colorectal polyps. Average polyp size was 28.8 (± 5.1) mm. Pooled recurrence rate of polyps of any histology at 4 to 6 months was 21.0 % (95 % C 9.0 % – 32.0 %, P < 0.001, I2 = 97.3, P < 0.001). Subgroup analysis showed that recurrence was 10 % for proximal lesions (95 % CI 0.0 % – 20.0 %, P = 0.054, I2 = 93.7 %, P = 0.054) and 9 % for distal lesions (95 % CI 2.0 % – 21.0 %, P = 0.114, I2 = 95.8 %, P = 0.114). Furthermore, subgroup analysis showed that recurrence was 12 % for adenoma (95 % CI 4.0 % – 19.0 %, P = 0.003, I2 = 98.0 %, P = 0.003), and 3 % for sessile serrated polyps (SSP) (95 % CI 1.0 % – 5.0 %, P = 0.002,

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I2 = 34.4 %, P = 0.002). Post-polypectomy bleeding occurred in 1 % (n = 8/817) of patients while abdominal pain occurred in 0.2 % (n = 2/817) of patients.

Conclusions C-EMR for non-pedunculated colorectal polyps ≥ 20 mm show an excellent safety profile with a very low rate of delayed bleeding as well as significantly less recurrence for SSP than adenomas.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP432 Contribution of upper endoscopy in the exploration of dysphagia

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Aims The aim of our study was to describe the epidemio-clinical and endoscopic characteristics of dysphagia, and to investigate a possible correlation between these factors and the etiology of dysphagia.

Methods This is a retrospective study collecting all patients presenting with dysphagia to the gastroenterology department of Hedi Chaker Hospital from 2020 to 2023.

Results We included 100 patients. The mean age of the patients was 58.4 ± 17.15 years. There was a slight female predominance with a sex ratio M/F = 0.92. Eighty-two patients had dysphagia to solids (82 %). The remaining patients had mixed dysphagia. Associated signs were regurgitation, epigastric pain and worsening of the general well being in 14.8 and 7 patients respectively.

Endoscopic abnormalities were dominated by hiatal hernia (N = 26), peptic esophagitis (PE) (N = 20), classified according to the LOS ANGELES classification: grade A (7 cases), grade B (8 cases), grade C (3 cases) and grade D (2 cases), extrinsic compression in 3 patients, an ulcerative process in 4 patients, a schatzki ring in 5 patients and esophageal mycosis in 4 patients. Upper Endoscopy (UE) was normal in 30 patients.

In a univariate study, age (p = 0.321), type of dysphagia (p = 0.298) and gender (p = 0.841) were independent factors for peptic esophagitis.

There was no correlation between gender and young age with schatzki ring with p = 0.713 and 0.578 respectively.

Normal UE was not correlated to young age (p = 0.269), gender (p = 0.861) nor the type of dysphagia (p = 0.733).

Conclusions Dysphagia is a frequent reason for consultation, and should always be investigated by UE. Several etiologies may be involved. Peptic esophagitis was the most frequent cause in our study. However, endoscopy can be normal, as in our case.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP433 Novel cleaning method for flexible GI endoscopes

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Aims Flexible endoscopes have been associated with the greatest number of patient infections when compared to other reusable medical devices. Ineffective manual cleaning of endoscope channels is a root cause of biofilm formation and persistent contamination. The objective of this study is to asses the performance of a automated endoscope channel cleaner (AECC) to address biofilm removal.

Methods The performance of the AECC was compared to standard manual cleaning against cyclic build-up biofilm in suction/biospy and air/water endoscope lumens. Residual biofilm was assessed using total organic carbon, protein and colony forming units. The results were compared to ISO 15883 recognised acceptance criteria, and to manual cleaning according to the IFU in matched channels.

Results Both manual cleaning and the automated technology achievied cleaning below the ISO 15883 alert levels for protein (3 µg/cm^2) and total organic carbon (6 µg/cm^2) in the suction/biospsy lumen. In the air/water channel, manual cleaning failed to remove biofilm with levels persisting far beyond acceptable cleaning limits. The novel technology achieved removal of the biofilm in these channels.

Conclusions Current manual cleaning methods are unable to remove cyclic build up biofilm from the air water channels of flexible GI endoscopes. AECC represents a potential improvement in cleaning efficacy which could address the risk of biofilm in these cha

Conflicts of interest EW, VS, LM, LT and JB are employees of Nanosonics Ltd MA provides consulting services for Nanosonics

eP434 Comparison of risk scoring systems in patients presenting with acute upper gastrointestinal bleeding

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Aims Acute Upper gastrointestinal bleeding (UGIB) is a common emergency in gastroenterology with significant morbidity and mortality. Many scores are used during the first assessment to provide an early and accurate stratification of the need of intervention, re-bleeding and mortality risk.

The aim of this study was to assess and compare the performance of the Age, Blood tests and Comorbidities (ABC) score , the MAP(ASH) score , Glasgow-Blatchford (GBS) score and AIM65 score in predicting the need for intervention, re-bleeding and short term mortality among Tunisian population with UGIB.

Methods This was a retrospective study conducted at Sahloul university hospital between January 2023 and October 2023 including all patients hospitalized for acute UGIB.

The diagnosis of UGIB was based on patient presentations: hematemesis, melena or both. Demographic information, comorbidities, physical examination, laboratory results and treatments were recorded. ABC, MAP(ASH), GBS, and AIMS65 were calculated for all patients. The area under the receiver operating characteristic (AUROC) curve was determined to compare the predictive power of each scoring system.

Results A total of 63 patients were included. The mean age was 62,8 years and 57,1 % were males. Major comorbidities, including liver, heart and renal diseases were present in 44,4 % of patients.The endoscopic findings included peptic ulcer in 33,3 %, esophageal varices in 22,2 %, gastric varices in 4,8 % , reflux esophagitis in 15,9 %, upper gastrointestinal tumors in 1,6 %, angiodysplasia in 3 patients, aorto-digestive fistulae in 1 patient and 1 case of gastric arteriovenous malformation . In nine patients, no evident cause of UGIB was identified. Endoscopic therapy was required in 20,6 % in order to achieve haemostasis, 6,3 % proceeded to surgery and 1 patient needed radiological intervention. Blood transfusion was indicated in 50,8 % of patients. Re-bleeding was noted in 14,3 % of the patients and short term mortality occurred in 3,17 %. When comparing ROC curves, we found that GBS (AUC = 0,87) was superior to ABC (AUC = 0,639) , to MAP(ASH) (AUC = 0,653) and AIM65 (AUC = 0,71) in predicting the need for transfusion (p < 0.0001 ,p < 0.0001 ,p = 0.004 ;respectively). The scoring systems showed comparable results in predicting rebleeding (GBS: AUC = 0,746, ABC: AUC = 0,72, MAP(ASH): AUC = 0,65, AIM65: AUC = 0,674). They also showed comparable results in predicting the need for endoscopic treatment and surgery. In our study, these scores were good predictors of in-hospital mortality (GBS: AUC = 0,9, ABC: AUC = 0,79, MAP(ASH): AUC = 0,96, AIM65: AUC = 0,94) but without significant differences.

Conclusions Results from our study concluded that these scoring systems are performant in assessing patients presenting with UGIB. In addition to its simplicity, the GBS was found to be superior to the other scores in predicting the need for blood transfusion and comparable to them in other outcomes. Therefore we suggest its routinely use in emergency settings.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP435 Palliative treatment of colorectal cancer using electroporation

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DOI 10.1055/s-0044-1783724

Aims To assess the safety of endoscopic electroporation in colorectal cancer and effectiveness in local cancer control and late gastrointestinal symptoms such as obstruction, stenosis and haemorrhage amongst patients who are deemed inoperable or refuse surgical resection.

Methods This was a retrospective cohort study of colorectal cancer patients who were not candidates for surgical resection or refused surgical treatment, and were treated with electroporation at Zealand University Hospital in Denmark between 2020 and 2023. All patients treated with electroporation as part of a study protocol were excluded from the study. Through manual review of patient charts, information regarding patient demographics, TNM classification, neoadjuvant/adjuvant/surgical treatment, symptoms, electroporation procedure and post-treatment symptoms and adverse events were collected. All electroporation procedures were performed with the EndoVe device, developed for endoscopic use in the gastrointestinal tract. Procedures were performed as either calcium electroporation or electrochemotherapy with bleomycin. Calcium was administered as intratumoural injection prior to electroporation, while bleomycin was administered intravenously eight minutes prior to electroporation.

Results Twelve electroporation procedures were performed in six patients with non-resectable rectal and sigmoid cancer. Three patients were deemed inoperable due to frailty while three patients refused surgery. Nine out of twelve procedures were performed in sedation in an outpatient setting, with the remaining three procedures performed in general anaesthesia due to patient comorbidities. Nine calcium electroporation and three electrochemotherapy procedures were performed. Procedure time was between 20 to 31 minutes. Patients were treated with a minimum of three pulses and maximum of eight pulses during electroporation treatment. In all patients, 100 % of the tumour surface was successfully treated. No serious adverse events occurred. Three patients reported rectal bleeding prior to electroporation, and all three reported ceased or significantly reduced bleeding after electroporation. Tumour progression during patient follow-up was only reported for three out of six patients. During follow-up, one patient had stabile disease, one patient developed progressive disease and the last patient had partial response to electroporation treatment.

Conclusions Our results suggest that electroporation is a safe and simple treatment with few adverse events even for older frail patients deemed inoperable. Furthermore, electroporation is an efficient treatment modality to stop symptomatic bleeding in colorectal cancer patients. Electroporation has potential as a palliative treatment option for colorectal patients considered ineligible for standard treatment.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP436 Artificial Intelligence and Minimally Invasive Endoscopy – Panendoscopic Detection of Pleomorphic Lesions

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Aims Capsule endoscopy (CE) is a minimally invasive exam suitable of panendoscopicevaluation of the gastrointestinal tract. Nevertheless, CE is time-consuming withsuboptimal diagnostic yield in the upper GI tract. Convolutional neural networks (CNN) are human brain architecture-based models suitable for image analysis. However, there is no study about their role in capsule panendoscopy.

Methods Our group developed an artificial intelligence (AI) model for panendoscopic automaticdetection of pleomorphic lesions (namely vascular lesions, protuberant lesions,hematic residues, ulcers and erosions). 355110 images (6977 esophageal, 12918 gastric, 258443 small bowel, 76772 colonic) from eight different CE and colon CE(CCE) devices were divided in a training and validation dataset in a patient split design.The model classification was compared to three CE experts' classification. The model's performance was evaluated by its sensitivity, specificity, accuracy, positive predictive value, negative predictive value, and area under the precision-recall curve.

Results The binary esophagus CNN had a diagnostic accuracy for pleomorphic lesions of 95.7 %. The binary gastric CNN identified pleomorphic lesions with a 96.9 % accuracy.The undenary small bowel CNN distinguished pleomorphic lesions with differenthemorrhagic potential with 98.9 % accuracy. The trinary colonic CNN (detection and differentiation of normal mucosa, pleomorphic lesions and hematic residues) had 96.8 % global accuracy. [1–4]

Conclusions Our group developed the first AI model for panendoscopic automatic detection of pleomorphic lesions in both CE and colon CE from multiple brands, solving a critical interoperability technological challenge. Deep learning-based tools may change the landscape ofminimally invasive capsule panendoscopy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP437 Anastomotic dehiscence after endoscopic mucosal resection

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Abstract Text A 75-year-old man, with a history of colorectal anastomosis secondary to rectal cancer surgery was referred for endoscopic resection of a 9 cm LST-G (Is + IIa) located at 1 cm of the anal margin and occupying 1/3 of the bowel lumen. Mucosal and vessel pattern was mostly regular (JNET 2A), with depressed area over the anastomosis with biopsies showing high-grade dysplasia. Due to dificulty with the elevation of the lesion we proceeded with pEMR and STSC in detriment of ESD. One month later, we diagnosed an anastomotic dehiscence measuring 20x75mm. The decision was to perform a protective colostomy and endoluminal vacuum therapy and with 9 sessions in 1 month, the cavity downsized to 10x20mm and completely healed in 2 months Histology revealed carcinoma *in situ*. The patient is waiting for a follow up colonoscopy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP438 Clinical and performance outcomes of colorectal submucosal dissections using a novel advanced energy platform: a single prospective cohort observational study

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Aims This single centre prospective observational study aims to measure clinical and performance outcomes using the Speedboat 10fr Inject device/SBI, and the Speedboat-assisted Endoscopic Submucosal Dissection/S-ESD modality when removing complex colorectal lesions.

Methods The primary outcome was rate for en-bloc and conversion to piecemeal resection. Other clinical outcomes: Peri-endoscopic complications, unplanned surgery and surveillance were recorded. Polyp features (size, surface, location, morphology, and submucosal fibrosis), technical and procedural specifications, and dissection time and speed were also collected. Univariate and multivariate analyses were used to identify factors affecting performance in the whole cohort and across 3 different periods with equally distributed number of cases to assess the performance curve

Results From a total of 200 cases, 179 were endoscopically resected. 21/200 cases were abandoned: 16 for muscle retraction sign and 5 for medical non-endoscopic emergencies. Mean polyp surface was 18.32cm^2, mean long axis length was 6.5cm (biggest polyp axes of 15x13cm) and mean procedure duration was 106.35 minutes. Out of 179 resected polyps, en-bloc resection was achieved in 92.2 % (n = 165/179) with a curative rate of 82 % (n = 147/179) including 22 malignant polyps. Conversion to piecemeal resection was 7.8 % (n = 14/179) including 4 cases of device failure. Delayed bleeding occurred in 3 patients out of 165 (1.82 %). No colorectal perforation and unplanned emergency surgery were recorded. No mortality was noted. One 5mm benign recurrence (0.6 %) in the largest complex rectal polyp covering 95 % of the circumference was noted. Overall mean dissection speed was 9.98 cm^2/hr (SD 5.86). Multivariate analysis showed that key energy modalities of the S-ESD function efficiently to tackle complex features of colorectal lesions (large surface, mild and severe fibrosis, and incidence of bleeding). Under these clinical conditions (same operator, designated device, and modality) and these variables, polyp surface and presence of severe fibrosis were found to account for 70 % of variance in dissection duration and 30 % of variance in dissection speed. Larger polyps were removed faster in period 3 (12.05cm^2/hr) compared to period 1 (7.97cm^2/hr)/(p.002) with lower incidence of intraprocedural bleeding.

Conclusions This single center prospective cohort study demonstrates that the SBI is a safe and effective device with minimal complications. The S-ESD appears to be an acceptable modality to remove complex colorectal polyps in a timely manner even in larger polyp surface and higher degree of submucosal fibrosis. Over time, proficiency with the S-ESD modality resulted in quicker dissection as polyp surface increased across similar severity of submucosal fibrosis. [1]

Conflicts of interest Consultant Agreement with Creo Medical

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eP439 ERCP Data from a tertiary care hospital in Karachi, Pakistan

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Aims Endoscopic retrograde cholangiopancreatography (ERCP) is an important diagnostic and therapeutic procedure for pancreato-biliary disorders. There is scarcity of local data to assess the quality, availability, performance, and the safety of ERCP in Pakistan. The aim of this study is to present the outcome, safety data, and success rate of ERCP.

Methods It is a descriptive retrospective study done in Endoscopy Unit, Surgical Unit 4, at Dr. Ruth K.M PFAU Civil Hospital. The study reviewed more than 12,000 records from 2006 to 2021 – (15 years). The ERCP findings are recorded in reporting software. The data fields are organized into six components: patient demographics, pre-procedure medications/anesthesia, and indication for ERCP, examination findings, therapy, and conclusion. The data is a complete result of all ERCPs performed in the stated time frame.

Results The average patient age was 46.6 years. 59.1 % of the patients were female and 75.4 % of the total patients were inhabitants of Karachi. The predominant symptom on presentation was jaundice (48.1 %), followed by abdominal pain (44.9 %). On imaging, 45.2 % of patients had evidence of a dilated CBD, 14.4 % had established gallstones, 19.2 % had CBD stones, and 11.8 % had evidence of a peri-ampullary mass. Successful biliary cannulation was achieved in 90.8 % of the ERCPs performed. Biliary stenting done in 41.7 %. Chronic pancreatitis was the indication for intentional pancreatic ERCPs, with successful cannulation done in 89.6 % cases and stenting done in a 100 %. Follow-up ERCP was done in 25.6 % of patients. Sphincterotomy was performed in 63.6 % cases. Other interventions included Precut with needle-knife (7.2 %), and sphincteroplasty (7.6 %). Biliary stones were the predominant finding in 46.2 % of the procedures, followed by biliary strictures in 19.3 % cases. The predominant peri-operative complication was bleeding, occurring in 3.3 % patients.

Conclusions ERCP has a vast majority of diagnostic and therapeutic uses. However, there is a limitation of centers equipped to perform ERCPs in Pakistan. This is a large scale audit being the first of its kind in the country, with acceptable success rates in cannulation and peri-operative complication rate.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP440 Factors of good response to endoscopic dilatation in Plummer Vinson Syndrome

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Aims Plummer-Vinson syndrome (PVS) is a rare disease that occurs mainly in young women. It consists of an upper dysphagia with iron deficiency anemia and a ring in the cervical esophagus on upper gastrointestinal endoscopy. Our work aims to determine the results of endoscopic dilatation in our series and the number of dilation sessions needed to achieve satisfactory clinical results.

Methods This is a retrospective descriptive and analytical study spread over 10 years, from January 2010 to August 2020, all the patients were gathered for Plummer Vinson in our facility and one of the most extensive series gathered to our knowledge. All data was gathered on an Excel sheet and statistical analysis was performed using SPSS v22.

Results The average age of the patients was 46 years [14 to 77 years], with a female predominance (sex ratio M/F of 0.28). The main symptoms were high dysphagia to solids in all cases. Five patients had upper gastrointestinal bleeding that was recorded. Iron deficiency anemia was found in most patients (80 % of patients (N = 40)). The esophageal-gastro-duodenal endoscopy was per-

formed in all patients and showed a ring at the upper esophagus. All patients had endoscopic dilatation by balloon (76 %) or by candles (24 %). A single session was sufficient in 82 % of cases, 2 sessions in 15 % of patients, and three sessions in 3 % of patients. Satisfactory clinical results were found after one session (p: 0.02), when the dilation was performed with a balloon (p: 0.03). Factors not influencing the clinical results of the dilation were the presence of anemia (p: 0.08) and the patient's sex (p: 0.07). On the other hand, all patients had iron supplements and overall satisfactory evolution after 46 months (96 %). Associated conditions were: celiac disease (3 cases), chronic liver disease (5 cases), and dissecting esophagitis (4 cases). However, one patient had an ENT tumor after 10 years and we also report the case of a malignant degeneration in on patient.

Conclusions The Plummer Vinson Syndrome is a rare entity with a proven risk of cancer of the esophagus and oropharyngeal region requiring endoscopic surveillance. The treatment is based mainly on martial therapy and endoscopic dilatation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP441 Gastric plasmacytoma as a rare cause of abdominal pain

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Abstract Text A 60 year-old man was admitted to our hospital due to lasting pain localized in upper abdominal quadrants. CT scan revealed plurinodular thickening of the gastric body and fundus. EGD confirmed the presence of multiple submucosal nodules at esophageal, gastric, and duodenal levels. Histological analysis identified the presence of plasma cell myeloma with high proliferative index. Plasmacytoma is defined as extra-skeletal accumulations of monoclonal plasma cells. GI tract is rarely involved and the small bowel is the most frequently affected segment. Patients with gastric plasmacytoma typically exhibit nonspecific symptoms like epigastric pain, weight loss, and upper GI bleeding. The endoscopic appearance of plasmacytomas varies considerably but may resemble other more common conditions, including poorly differentiated or metastatic neoplasms, MALT lymphoma, and GI amyloidosis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP442 Learning Curve for Endoscopic Submucosal Dissection of gastric lesions: Experience of a single operator in a Western tertiary center

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Aims Endoscopic submucosal dissection (ESD) is widely implemented in Asia. Experience from the western world is still limited, so the evidence on the description of a learning curve (LC) is sparse.

The aim of this study is to evaluate the LC for ESD of gastric lesions using accepted proficiency benchmarks (PB).

Methods Retrospective analysis with a prospectively maintained database of all patients undergoing ESD at a Western tertiary center from June 2016 to December 2022.

Inclusion criteria: ESD of gastric lesions performed by a single operator.

Primary endpoint: a LC to estimate the number of ESDs required to achieve PB (>90 % for en bloc resection, >80 % for histologic margin-negative (R0) resection and resection speeds (RS) > 9cm2/hr), using the CUSUM method.

Results Of 477 ESD performed, a total of 235 ESD met the inclusion criteria. The en bloc resection rate was 100 %. The R0 resection rate was 97 % so no statistically significant differences were found, since it was always within PB.

Using the CUSUM method, the LC was divided into learning periods [Phase I – learning phase (cases 1-48); Phase II – adaptation phase (49-72), Phase III – consolidation (from case 73 on).

Globally, after reaching the level of 9cm2/h and after resection 73, the cumulative moving average remains above this speed for all following resections. [1]

Several locations reach moving average proficiency levels at different number of interventions (antrum: from the beginning, body: 134th).

Conclusions The PB regarding the en bloc and R0 resection were achieved from the beginning.

The PB regarding de RS was achieved from the beginning for the antrum.

The PB regarding de RS, globally, has a clinically significant first learning inflection at ESD number 49 and at ESD number 73 achieved sustained PB for RS.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP443 Descriptive Analysis of characteristics of patients that have undergone small bowel capsule endoscopy

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Aims The use of Small Bowel Capsule Endoscopy (SBCE) is recommended in patients with suspected small bowel bleeding (SSBB), overt suspected small bowel bleeding, iron deficiency anemia and suspected Crohn disease with a prior negative upper endoscopy and ileocolonoscopy. In comparison to other diagnostic modalities of small bowel examination, its use is simple, safe, and has a great diagnostic yield. The aim of this study is to analyse the characteristics of patients that have undergone SBCE.

Methods A retrospective descriptive analysis of 25 patients that have undergone small bowel examination with SBCE the last semester in our Division. Demographic data of patient, main comorbidities, medication history, the indication of the examination, the main findings and the final diagnosis were recorded and analysed.

Results The median age of patients was 63 years old (IQR 26) and 52 % were male. A quarter of them had valvular heart disease and 20 % had Atrial Fibrillation. Under anticoagulant therapy with either DOACs, LMWH or warfarin was the 36 % of patients. Inpatient were only 36 % (9/25), and had Small Bowel Capsule endoscopy due to overt suspected small bowel bleeding. The 67 % of these patients had active bleeding, 50 % due small intestine angiectasia and 33 % owing to ulcer. In one case the active bleeding was ascribed to small bowel GIST and was verified by cross-sectional imaging. Another unusual finding in patient with SSBB was meckel diverticulum. The most common indication of the examination was suspected small bowel bleeding and the most common final diagnosis was angiectasia (52 %) classified as P2 by Saurin classification. 75 % of patients had more than one findings, with 25 % of them having pathological signs in duodenal and jejunum and 16,7 % having isolated findings in the ileum. [1–2]

Conclusions The main indication of SBCE is suspected small bowel bleeding, with the most common finding being the angiectasias. In inpatients with overt suspected small bowel bleeding, its prompt use can identify the cause of bleeding in sites that cannot be assessed with conventional endoscopic modalities. Another critical role of SBCE is the identification of unusual causes of gastrointestinal hemorrhage.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP444 Endoscopic assisted electrochemotherapy in addition to neoadjuvant treatment of locally advanced rectal cancer: a randomized clinical phase II trial

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DOI 10.1055/s-0044-1783733

Aims The aim of this clinical trial is to establish electrochemotherapy with bleomycin as a safe and feasible part of the standard neoadjuvant down-staging treatment of patients with locally advanced rectal cancer (UICC stage II-III) prior to intended curative surgery. The study's primary objective is to establish safety and efficacy of electrochemotherapy treatment in locally advanced rectal cancer, while the secondary objective is to investigate changes in tumour size (down staging) and structure (grade of regression).

Methods This was a randomized clinical trial. Patients were eligible for inclusion if they had locally advanced rectal cancer, UICC stage II-III. Patients were recruited in Region Zealand and Capitol Region in Denmark between 2017 and 2018. Patients randomized to the intervention group, were offered the standard preoperative neoadjuvant therapy, followed by a single treatment of electrochemotherapy with bleomycin and subsequent standard surgical resection. Patients in the control group received the standard preoperative neoadjuvant treatment followed by surgical resection. Electroporation was delivered through the endoscopic device EndoVe and the Cliniporator was used for pulse generation. Bleomycin (15.000 IU/m^2 x body surface area) was administered intravenously 8 minutes prior to endoscopic electroporation to ensure even distribution of bleomycin within the tumour tissue. Patients were recruited just prior to completion of neoadjuvant treatment. PET/MRI was performed as baseline outcome for standard neoadjuvant treatment. A second PET/MRI was performed in the week leading up to surgical resection as a measure of response to preoperative electroporation. The pathology report upon surgical resection will include specific tumour details on regression grading and final staging of the tumour. Follow-up was twelve weeks. Safety parameters were reviewed continuously by reviewing adverse events as they arose.

Results Sixteen patients were included in this randomized clinical trial. Eight patients were in the intervention group and eight patients were in the control group. In the intervention group, endoscopy procedure time was between 9 to 36 minutes. Patients were treated with a minimum of 3 pulses and maximum of 15 pulses. In 7 out of 8 patients, 100 % of the tumour area was successfully treated with electroporation. The last remaining patient received successful treatment of 75 % of the tumour area. No serious adverse events occurred. Rectal pain was the most frequently reported (n = 4) adverse event in the intervention group. PET/MRI tumour volumetric results from this study are still pending.

Conclusions Electrochemotherapy is a safe and feasible treatment for locally advanced rectal cancer. The pending PET/MRI tumour volumetric result from this study can provide valuable data and insight into further investigation of the role of electroporation in the treatment of locally advanced rectal cancer in the future.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP445 The incidence of ileitis on routine capsule endoscopy in a single UK centre

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DOI 10.1055/s-0044-1783734

Aims Investigate the frequency of ileitis and causes on routine wireless capsuleendoscopy (WCE)

Methods All patients who had a WCE performed at Hampshire Hospitals NHS Foundation Trust between June 2021- June 2023 were retrospectively studied. Data was collected using electronic patient records onto an Excel spreadsheet. A total of 286 capsule reports were evaluated, along with the prior work-up of investigations for each patient, findings of ileitis, and underlying causes. Data were recorded and analysed anonymously onto a spreadsheet.

Results A total of 286 patients, 31 % were found to have ileitis on WCE. Of patients who were found to have ileitis, 33 % were newly diagnosed with Crohn's disease, 9 % had active inflammation with previously diagnosed Crohn's disease, 9 % were found to have NSAID-related enteropathy, 25 % had non-specific ileitis, 20 % of these had normal radiological imaging, however than having a positive diagnosis on WCE.

Conclusions There is a high prevalence of ileitis on WCE, with less than 50 % of these patients having a diagnosis. Radiological imaging does not always pick up ileitis and therefore WCE remains the gold standard in patients who have suspected small bowel inflammation. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP446 The Dublin Score: a new approach for assessment of Ulcerative Colitis

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Aims Endoscopy plays a fundamental role in management and follow up of patients with Ulcerative Colitis. MES score (Mayo endoscopic score) and UCEIS (Ulcerative Colitis index of severity) are commonly studied by physicians to assess the disease severity and its activity. But both scoring systems focus only on the mucosal lesions, none of them include the extent. The degree of ulcerative colitis burden of luminal inflammation (DUBLIN) score is calculated as a product of MES (0-3) and disease extent (E1-E3), Thus, the aims of this study are to assess whether new scoring systems were useful to detect serious disease and also to study the significant factors associated with medical treatment failure among patients with UC .

Methods A retrospective study was conducted at the Gastroenterology Department of the Universitaire hospital center Sahloul, Sousse, involving 50 patients with UC who were presented with an acute flare-up and had undergone a colonoscopy. Endoscopic scores , clinical and biological data were collected.

Results 50 patients with an average age of 41 years and a male/female ratio of 0.85 were included in the study. Among the patients, 24 (48 %) were receiving aminosalicylates, 11 (22 %) were on immunosuppressants, and 4 were receiving TNF-inhibitors . The average C-reactive protein (CRP) level was 72.7 + /- 66.7, and the blood albumin levels ranged from 17 to 42.3 g/L. Most patients had a moderate to severe flare-up, with an average MES score of 2.5. The distribution of disease extent was as follows: E1 (n = 2, 4 %), E2 (n = 16, 32 %), and E3 (n = 32, 64 %). A significant correlation was proved between the DUBLIN

score, MES score, and UCEIS score. The DUBLIN score exhibited a statistically significant correlation with both the MES score (r = 0.733, p < 0.001) and the UCEIS score (r = 0.652, p < 0.001). Furthermore, the UCEIS score showed a significant correlation with the MES score (r = 0.816, p < 0.001). However, no statistically significant correlation was found between the scores and the biological parameters (CRP, albumin). Multivariate analysis revealed that the DUBLIN score (DS) was significantly associated with therapeutic failure (p = 0.008), with an odds ratio of 1.965. However, neither the UCEIS score (p = 0.494) nor the C-Reactive protein (p = 0.320) showed a significant association with therapeutic failure.

Conclusions Our study demonstrated a significant correlation between the DUBLIN score, UCEIS score, and MAYO score, emphasizing the significance of the DUBLIN score as a predictor of therapeutic failure.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP447 Endoscopic peroral myotomy (POEM) for the treatment of epiphrenic diverticulum secondary to esophageal motility disorder with recurrent abscess-forming pneumonias

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Abstract Text We present the case of a 71-year-old woman with history of dysphagia and recurrent abscess-forming pneumonias secondary to a perforated esophageal diverticulum treated with laparoscopic diverticulectomy. Esophagogram suggestive of diffuse esophageal spasm. Upper endoscopy: corkscrew-shaped esophageal morphology with hypercontractility. High-Resolution Manometry: distal esophageal spasm with hypercontractile contractions. It was performed a POEM with complete resolution of dysphagia and the associated respiratory infections. Epiphrenic diverticula may be linked to esophageal motility disorders in 35-90 % of cases. POEM has emerged as an effective and safe treatment option for esophageal motility disorders. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP448 Evaluation of elderly patients admited for hospitalization due to upper gastrointestinal bleeding: a prospective study

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Aims Mortality related to upper gastrointestinal bleeding (UGB) is up to 5 % in some studies, especially in elderly patients. The aim of this study is to evaluate personal history, endoscopic findings and evolution in elderly patients as a base to future studies.

Methods We prospectively recorded since January 2023 to October 2023 all patients hospitalised due to endoscopic findings or symptoms related to UGB (n = 159). We excluded those under 65 years old (yo) (n = 61).

Results We included 98 patients. Median (range) age was 70 (58-79), being 52.5 % above 65 years old. Sixty-nine percent were men. Glasgow-Batchford Score (GBS) was calculated with a median score (range) of 11 (8-13). Respect to personal history, 27,4 % had previous diagnosis of atrial fibrillation, 20 % of chronic kidney disease, 15 % of chronic hepatic disease and 14 % of respiratory disease. Up to 25 % of all patients had a personal history of previous UGB. Respect to medication, 57 % had an active treatment with proton bump inhibitors (PBI), 24,3 % with low-dose aspirin and 40 % any anticoagulant treatment (37 % anti-vitamin K (avK), 52 % with oral direct anticoagulant and 11 % with heparins). During initial evaluation, 11 patients were presented with haemodynamic instability (tachycardia and hypotension). Five patients recovered with fluid resuscitation, 4 of them required vasoactive drugs and 2 deaths were registered due to limitation of therapeutic effort. The most frequent symptoms were melena (64 %), hematemesis (15 %) and syncope (13 %). Mean haemoglobin was 7.6 g/dL (SD ± 2.4). Ninety-two percent of patients with avK were overdosed, with an INR over 3.5. Sixty-seven percent of all patients required at least one red blood cells concentrate. All patients received bolus + perfusion of PBI, 21 % prokinetics before endoscopy. Endoscopy was performed in 93 % patients before or during hospitalization. In sixty-two percent of all patients and urgent endoscopy before being admitted was performed. The most frequent findings related to UGB were peptic ulcer disease (24 %) and angiodysplasias (13 %). Eight patients had an UGB related to malignant lesions and two patients had an UGB after polypectomy. Active bleeding was described in 20 % of the endoscopies performed. In regards to evolution, the mean stay was 5 days (SD ± 2). Complications were registered in 64 % patients, mostly acute kidney failure (36 %), infections (25 %) and heart decompensation (10 %). Rebleeding during hospitalization was described in 15 % of patients. Mortality up to six months after hospitalization was 4 %. New episodes up to six months were registered in 17 % of patients. [1–2]

Conclusions UGB in the elderly is associated with a high risk of hospitalization, complications after the episode and a poor prognosis after the UGB episode.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP449 Single-centre experience of using a new Lumen-apposing metal stent for approved and off-label indications

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Aims Electrocautery-enhanced lumen-apposing metal stents (LAMS) they were originally developed to facilitate drainage of pancreatic fluid collections, later on, they got approved for gallbladder drainage (for non-surgical candidates) and bile duct drainage (in case of failed ERCP or malignant distal biliary obstruction). Lately, LAMS have also been used for off-label indications, including gastrojejunostomy and drainage of postsurgical collections. Our objective was to analyze the indications, technical/clinical success rates and complications of all LAMS inserted in the last 3 years at our center using a new device called Hot SPAXUS.

Methods Data from 56 consecutive patients who had a LAMS (Hot SPAXUS-Taewoong Medical) placed were analyzed. Technical success was defined as

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the successful deployment of the LAMS to the desired location. Clinical success was defined as follows: for cholecystoduodenostomy, cholecystogastrostomy and choledochoduodenostomy: ≥ 50 % decline in baseline serum bilirubin within 2 weeks; for gastrojejunostomy: resolution of gastric outlet obstruction and successful resumption of oral intake; for cholecystitis: resolution of sepsis; for ileo-colonstomy: resolution of the obstructive picture without the need for surgical intervention; and finally for pyloric occlusion: transpyloric resolution of the obstruction

Results In our center we have positioned 56 LAMS in as many patients for multiple indications. In particular, 26 cholecystogastrostomies were performed (46.4 %) of which 57.7 % for pancreatic cancer, 34.6 % for cholecystitis, 3.9 % for ampulloma and 3.9 % for cholangiocarcinoma; 13 cholecystoduodenostomies (23.2 %) of which 61.5 % for cholecystitis and 38.5 % for pancreatic cancer; 9 gastrojejunostomies (16.1 %) of which 33.3 % for pancreatic cancer, 22.2 % for metastatic bladder cancer, 11.1 % for gastric cancer, 11.1 % for duodenal diverticulum, 11.1 % for gallbladder cancer and 11.1 % for gastrojejunal anastomosis cancer in a gastroresected patient; 5 choledochoduodenostomies (8.9 %) of which 40 % for ampullary tumor, 20 % for pancreatic tumor, 20 % for cholangiocarcinoma and 20 % for metastatic bladder cancer; 2 transpyloric LAMS (3.6 %) for benign pyloric stenosis; 1 Ileocolonstomy (1.8 %) for cecal tumor infiltrating the ileocaecal valve. Overall technical and clinical success rates were high (55/56; 98.2 % and 52/56; 92,6 %, respectively).

Conclusions LAMS are increasingly used tools in interventional EUS. Their use has proven effective and associated with high technical-clinical success rates with low complication rates. The number of off-label indications for LAMS is also growing, associated with high technical and clinical success rates, with acceptable complication rates.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP450 Is the periampullary diverticulum a failure factor of cannulation during endoscopic retrograde cholangiopancreatography for choledocolithiasis?

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Aims A periampullary diverticulum (PAD) is defined as a duodenal depressed lesion of more than 5 mm with an intact mucosa within a radius of 2.5 cm of the major papilla. Presence of PAD is thought to complicate endoscopic retrograde cholangiopancreatography (ERCP).

Our aim is to calculate the prevalence of PAD in patients with Common bile duct stones (CBDS) and to evaluate their influence on the success rate and of CBD cannulation and early complications in lithiasis pathology.

Methods A total of 1080 patients who underwent ERCP for CBDS from January 2002 to December 2022 were retrospectively analyzed.

We compared the success rate of CBD cannulation and early complications in patients with periampullary diverticulum (PAD group) versus patients without a periampullary diverticulum (non- PAD group).

Multivariable-adjusted logistic models were used to estimate the odds ratio (OR) of PAD for successful cannulation.

Results Of the 1080 patients enrolled, 98 (9.1 %) were in the PAD group, and 982 (90.9 %) were in the non-PAD group.

Compared to those in the non-PAD group, the patients in the PAD group had a greater average age (69 ± 11 *vs* 53 ± 13, $P = 0.01$), they had a higher incidence of acute cholangitis (15.8 % *vs* 10.1 %), and acute pancreatitis (5.1 % *vs* 8.9 %) ($P < 0.001$), however, the complication rates of ERCP are similar in patients with or without PAD

In a multivariable- adjusted logistic model, the overall successful cannulation rate in non-PAD patients was higher than in PAD patients [odds ratio (OR) = 2.73, 95 % confidence interval (CI): 1.54-3.332, $P = 0.006$].

Conclusions The presence of a PAD appears to significantly reduce the success rate of CBD cannulation durring ERCP for choledocolithiasis without increasing the risk of early complications.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP451 Analysis of the performance of the Modified Kyoto Classification Scoring Model in predicting current Helicobacter Pylori infection

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Aims Helicobacter Pylori-infected gastric mucosa shows distinct manifestations under upper gastrointestinal endoscopy. Chinese studies established a new scoring system based on the Kyoto classification score and proved its accuracy in diagnosing HP currect infection in the Chinese population. We aimed in this study to evaluate its performance in the Tunisian Population.

Methods This is a retrospective study conducted in a Tunisian Hospital including all patients who underwent gastroscopy from January 2022 to September 2023. Atrophy, hypertrophy of the gastric fold, nodularity, diffuse redness, sticky mucus, spotty redness, , fundic gland polyp and regular arrangement of collecting venules (RAC) were recorded according to the Kyoto classification of gastritis and the modified score was caculated . The HP infection status of patients was determined by histological examination of gastric biopsies. Area under the curve (AUROC) of the modified score was calculated.

Results We included 361 patients with a male-to-female sex ratio of 0.8. The mean age was 52 years [9-92]. Upper gastrointestinal endoscopy was indicated for epigastric pain (49.3 %), dyspepsia (16.3 %), iron-deficiency anemia (11.6 %), vomiting (6.1 %), bleeding (4.4 %), vitamin B12 deficiency (2.5 %), and other symptoms in 9.8 % (dysphagia, abdominal pain, diarrhea, etc.). Helicobacter pylori (HP) infection was detected in 82.8 % of cases.The total score of the modified scoring model ranged from –4 to 14 points. The AUROC was 0,784 and the cutoff value was 3 points. The sensitivity and specificity of the cutoff value were 80 % and 80.6 %, respectively.

Conclusions In our population, the modified Kyoto Classification Scoring Model was performant in accurately judging HP status. Therefore, using it routinely has promising clinical application value.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP452 Assessing the Frequency of Type I Gastric Neuroendocrine Neoplasms in Autoimmune Atrophic Gastritis: A Multi-Center Study in Italy

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Aims In autoimmune atrophic gastritis (AAG), immune-mediated morpho-functional changes in gastric mucosa lead to hypo-achlorhydria and subsequent hypergastrinemia. This stimulates gastric enterochromaffin-like (ECL)

cell proliferation, escalating the risk of type I gastric neuroendocrine neoplasms (gNENs). Yet, longitudinal studies on the AAG-type I gNENs association are still scanty. Our study aims to assess the frequency of type I gNENs in patients with AAG, evaluated at six tertiary referral centers in Italy.

Methods In this multi-center, retrospective analysis, we focused on patients diagnosed with AAG between January 2000 and June 2023. For each patient, demographic information, clinical histories, biochemical profiles, serologic data, and results of endoscopic examinations were collected.

Results The study included 375 patients with AAG [282 female (75.2 %), median age 66 years (IQR 54-73)]. At enrollment, 218 patients (58.1 %) had ECL cell hyperplasia. Over a median follow-up of 4 years (IQR 2-7), and after a median number of two upper GI endoscopies per patient, 80 patients showed 97 gNEN. All the gNENs were well-differentiated. In 17 cases (18 %) Ki 67 was not available; of the remaining 80, 67 cases (83.8 %) were G1, 13(16.3 %) were G2, all of which with a Ki-67 < 10 %; no G3 lesions were observed. 93 (95.9 %) gNENs were located in the body/fundus, 4 (4.1 %) were antral. The median size was 5 (IQR 3-10) mm. 58 (72.5 %) patients underwent endoscopic removal, 7 (8.8 %) gastrectomy, 9 (11.3 %) somatostatin analog therapy due to multifocal disease, and 6 were only monitored. Patients with AAG and gNENs had significantly higher gastrin levels compared to patients without gNENs [median 906.5 pg/mL (IQR 336.3-1262.5) vs 578.5 pg/mL (IQR 318-1100), p = 0.014]. However, there were no significant differences in proton-pump inhibitor use, OLGA and OLGIM stages, H. pylori status, and notably, circulating chromogranin A levels.

Conclusions Type I gNENs are a relevant complication in patients with AAG. Elevated circulating gastrin levels are linked to their occurrence, with hypergastrinemia acting as a driver for abnormal proliferation of gastric ECL cells. Regular endoscopic surveillance and thorough histopathological examination are crucial in patients with AAG, serving as a key strategy for early diagnosis and treatment of gNENs.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP453V Boerhaave syndrome: from perforation to recovery

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Abstract Text A 59-year-old woman presented with sudden epigastric pain post-vomiting. Analysis revealed leukocytosis and CRP of 29.7mg/dL. CT scan showed a hiatal hernia with mediastinal gas. Upper gastrointestinal endoscopy confirmed a 2cm esophageal perforation. Despite over-the-scope clip 6/12 deployment, closure was incomplete, leading to a fully covered metal stent placement, fixed with Stentfix-over-the-scope clip. Three days later, SIRS prompted a CT scan, revealing loculated left pleural effusion and a 10.5x4cm periprosthetic collection. The patient underwent mediastinal and pleural drainage. Twelve days later, the esophageal stent had migrated into the gastric lumen. Post-stent removal, over-the-scope clip detachment due to mechanical pressure was noted. The esophageal mucosa was healed. The patient is asymptomatic in a four-month follow-up [1–2].

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/480fd64c-7817-4c84-946e-dedd054e8241/Uploads/13821_Boerhaave_ESGE.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP454 Enhancing Colonic Endoscopic Therapeutic Procedures: First Multi-Centre European Retrospective Study on the Performance of a Double Balloon Overtube Device

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Aims Complex endoscopic therapeutic procedures, such as Endoscopic Mucosal Resection (EMR) and Endoscopic Mucosal Dissection (ESD) pose challenges in patients with loopy bowels and those with colostomies due to difficulties in establishing stable endoscopic access to lesion sites. This study investigates the safety and efficacy of a double balloon overtube device (DiLumen, Lumendi LLC) (Figure 1) in facilitating these procedures by providing improved access, stability, and traction.

Methods A retrospective study was conducted on 42 consecutive patients undergoing overtube-assisted complex endoscopic therapeutic procedures across two centres in Barcelona, Spain and Nottingham, United Kingdom between November 2019-October 2023. Outcomes assessed included sedation type utilized, reason for overtube use, device insertion time, lesion location, colonoscope reinsertion time through device, procedural time, type of intervention, specimen size, final histology, and any associated adverse events/complications.

Results The median age of enrolees was 73 years with a Charlson comorbidity index score of 3. (31) patients were from Nottingham, United Kingdom and (11) patients were from Barcelona, Spain. In 15 (37.5 %) patients had failed prior therapeutic procedures and were referred for overtube assisted endoscopic therapy. In 95.3 % of cases (N = 40) DiLumen was found to be useful in overcoming difficult access, preventing air leakage in 3 patients with prior colostomies, and in completing the intervention. In two patients the device was not useful; one couldn't tolerate the device and in the other the shorter length overtube couldn't reach the caecum. There were no complications or device related adverse events in the cases. The median scope/device insertion time to caecum was 9 minutes and a median of 90 seconds to reinsert the endoscope to the lesion regardless of lesion location. Mean procedure time was 65 min with a median specimen size of 37,5 mm (26-58). Table 1 illustrates outcomes of some other parameters in this study.

Conclusions This is the first multi-centre case series study in Europe evaluating the performance of a double balloon overtube platform device. It is also the first to report use of the device through a colostomy in several patients as well as use of the device as a conduit for powered endoscopic resection. In our experience, the device was used safely and effectively and appears to reduce procedure time, especially in cases requiring repeated endoscope reinsertion during therapy while improving the speed and success rate of more laborious procedures like ESD providing traction via suture loops during dissection. This study supports the integration of this device in clinical practice for improved outcomes in those with difficult colonic anatomy and complex polyps.

Conflicts of interest Dr Adolfo Parra-Blanco is a consultant for Lumendi company and is an advisory member for Lumendi, received speaker honorarium from Interscope and from 3D Matrix. No Competing interest for the other authors

eP455 Screening endoscopy in patients with head and neck neoplasia: a pilot study

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Aims Patients with head and neck neoplasia (HNN) are at an increased risk of synchronous gastro-esophageal neoplasia (GEN) due to shared risk factors such as smoking, alcohol consumption, and HPV infection. Several scientific societies recommend screening HNN patients for synchronous esophageal neoplasms. Nevertheless, particularly in Western centers, few studies evaluated the impact of an organized screening program.

Methods Prospective study that evaluated an organized GEN screening program in HNN patients diagnosed between 01/06/2020 and 31/12/2022, in a tertiary reference hospital. Patients were proposed to do an upper gastrointestinal endoscopy (UGE) with narrow-band imaging (NBI) and/or Lugol chromoendoscopy.

Results We evaluated 34 patients, 82.4 % male, with a median age of 64.5 (IQR: 57,5-70) years. 82.4 % had a history of tobacco use, and 35.3 % presented active alcohol consumption. The most common primary HNN sites were the larynx (50.0 %) and the tonsil (14.7 %), and the most frequent histological type was squamous cell carcinoma (SCC) (88.2 %). The median time between HNN and UGE was 4.5 (IQR: 1.25-10) months, and 91.2 % of the patients had already started treatment for HNN. The prevalence of synchronous GEN was 14.7 % (Esophageal SCC n = 4; Cardia adenocarcinoma n = 1). One patient underwent ESD of two synchronous SCC (SCC pT1b), with adjuvant radiotherapy, other (T1/T2N0M0) underwent chemotherapy and radiotherapy, and two patients are waiting ESD. The patient with cardia adenocarcinoma underwent ESD (pT1b with lymphatic permeation) and total gastrectomy, with no evidence of residual lesion. All patients with synchronous GEN remain alive in the follow-up.

Conclusions In our study the prevalence of synchronous GEN in HNN patients was significant and most lesions were detected in an early stage, still amenable for endoscopic resection. This study showed that the implementation of this screening strategy may potentially lead to a better prognosis for these patients and its cost-efficacy should be evaluated.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP456 The risk factors of mortality in cirrhotic patients with hemorrhagic decompensation

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DOI 10.1055/s-0044-1783745

Aims Upper gastrointestinal bleeding due to the rupture of esophageal varices is a fatal complication of cirrhosis,it is associated with a high mortality rate, leading to a decreased 5-year survival.The aim of our study is to identify predictive factors for mortality after variceal bleeding in cirrhotic patients.

Methods 308 cirrhotic patients were retrospectively enrolled between January 2015 and August 2023. 188 of them were consecutively presented to our emergency endoscopic unit by upper gastrointestinal bleeding.We compared the group of deceased patients(31.9 %)with the group of patients still alive(68.1 %). Univariate and multivariate Cox proportional hazard regression tests were used to identify independent risk factors for mortality.Survival analysis was estimated using the Kaplan-Meier method and compared using the log-rank test.

Results The average age of cirrhotic patients with hemorrhagic decompensation who passed away is 63 years + /- 14 years,with a sex ratio M/F of 1.The main etiology of death was ACLF (33 %). By univariate regression analysis,patients with hepatocellular carcinoma,ascites, hypoalbuminemia < 35 g/l along with renal failure and portal vein diameter > 15 mm; had a higher risk of death estimated at 70 %according to the Nagelkerke R2 result with p values of 0.036, 0.04, 0.05, 0.01 and 0,005 respectively.By multivariate analysis, Child Score > 9 (p: 0,006),ascites(p: 0,015),hepatocellular carcinoma(p: 0,016),hypoalbuminemia(p: 0,017), hypercreatinemia > 1,2mg/dl(p: 0,000) and dilated portal vein(p: 0,000)were statistically significant as predictor factors of mortality among patients with hemorrhagic decompensation.On the other hand,other factors including comorbidities,hemodynamic instability, blood transfusion, hemoglobin levels,Meld score,infection, esophageal varices stage,the presence of red blood during gastroscopy were not correlated with death of this category. The mortality rate of patients with bleeding decompensation is 31.9 %, and this rate is higher among populations with rebleeding (38.7 %) and those with early rebleeding (50 %). Survival analysis using the Kaplan-Meier method for cirrhotic patients with hemorrhagic decompensation and those who have never bled showed that the average survival for both groups is estimated at 15 years versus 17 years respectively.However, this difference is not significant with a calculated p value of 0.9.In contrast, comparing the mortality rate between cirrhotic patients with hemorrhagic decompensation who experienced rebleeding and those who did not; showed that mortality rate was higher in the population with rebleeding(38 % vs. 27 %) with a decreased median survival to 9 years versus 16 years.

Conclusions The identification of various predictive factors for mortality in cirrhotic patients with hemorrhagic decompensation enables the prevention and improvement of patient survival.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP457 Perfect timing to perform endocopy in a volvulus

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Aims This condition constitutes a pressing medico-surgical emergency, standing as the third leading cause of colonic obstruction. Within this urgent context, colonoscopy emerges as the preferred method for promptly addressing occlusion. The objective of our study is to convey our retrospective insights into the endoscopic management of sigmoid volvulus

Methods This condition constitutes a pressing medico-surgical emergency, standing as the third leading cause of colonic obstruction. Within this urgent context, colonoscopy emerges as the preferred method for promptly addressing occlusion. The objective of our study is to convey our retrospective insights into the endoscopic management of sigmoid volvulus. All data was gathered using an excell sheet

Results The mean age of the cohort was 60.2 years (ranging from 23 to 95 years), showcasing a male predominance (sex ratio M/F: 3.1). Clinically, all patients manifested with a lower occlusion, evident through a distended abdomen, diffuse abdominal tenderness, and an empty rectal ampulla upon examination. The biological assessment disclosed a mean CRP of 35.5 (1-345 mg/L) and white blood cell count of 10,299 (5000-20,000). CT scans, performed universally, revealed sigmoid distension (average 10.2 cm) in all cases, with a distinctive "bird's beak" sign in 5 instances. Recto-sigmoidoscopy, conducted within an average of 3 days (ranging from 9 hours to 10 days), achieved devolvulation in 82 % of patients, boasting an 85 % success rate. Endoscopic evaluation identified signs of distress (necrosis, erythematous, and purplish congestive mucosa) in 10 % of cases, prompting emergency surgery. The complication rate stood at 1 %, with only one case of perforation.

Conclusions Sigmoid volvulus, a grave and potentially life-threatening condition, finds its management improved through emergency endoscopic devolvulation. This intervention not only enhances patient outcomes but also defers surgery for dolicho-sigmoid and mitigates postoperative morbi-mortality.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP458 Gastric Variceal Hemorrhage: Risk Factors for Hemorrhagic Recurrence after Biological Glue Injection

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Aims Identify risk factors associated with recurrent GV(gastric varices) bleeding at 6 weeks following biologic glue injection and evaluate its impact on mortality.

Methods This retrospective analytical study included hospitalized patients at the Hepato-Gastroenterology department of Monastir between January 2014 and October 2023 with exclusive upper digestive bleeding due to GV rupture and who underwent oesophagogastroduodenoscopy with endoscopic hemostasis using biologic glue. Clinical, biological, and endoscopic data related to different GV bleeding episodes were recorded. GV were classified according to the Sarin classification. Cirrhosis was considered advanced for a Child score > B7. Decompensation of cirrhosis (excluding PHT-related bleeding) was defined by clinical ascites, hepatic encephalopathy ≥ grade II. Hepatic mortality was attributed to bleeding, decompensated cirrhosis, or infection. Cox regression was used for multivariate analysis and risk estimation

Results In a study of 33 patients experiencing 75 episodes of gastric variceal (GV) bleeding, the mean age was 58 years. Cirrhosis was the main cause of portal hypertension (PHT) in 72.7 % of cases, often in advanced stages. Most episodes involved oesophageal varices and hypertensive gastropathy, with some occurrences during antithrombotic therapy. Red blood cell transfusions and biologic glue injections were common treatments.

Over a follow-up period averaging 363 days, half the patients experienced GV bleeding recurrence within a median of 345 days, resulting in a 6-week recurrence rate of 18.7 %. At the 6-week mark, recurrence was linked to advanced cirrhosis, concurrent liver decompensation, active bleeding during endoscopy, specific types of varices, and hypertensive gastropathy.

However, factors like age, sex, underlying PHT cause, and treatment specifics did not impact GV recurrence. Hypertensive gastropathy was the sole independent predictor of recurrence during follow-up.

Hepatic mortality stood at 42.4 % within a median of 35 weeks and was closely related to GV bleeding recurrence. Multivariate analysis highlighted GV recurrence and diabetes as predictors of mortality.

Conclusions GV bleeding recurrence at 6 weeks appears linked to hepatic disease severity, HG presence, and active bleeding during endoscopy. This recurrence, particularly in diabetic patients, is associated with increased short- and medium-term hepatic mortality. Therefore, closer and more vigilant monitoring is advisable for these high-risk patients."

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP459 Prevalence and Predictive Factors of Gastric Atrophy and Intestinal Metaplasia in Helicobacter pylori-Associated Gastritis

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Aims Gastric atrophy and intestinal metaplasia are precancerous lesions that can progress to gastric cancer. The progression of histological abnormalities induced by Helicobacter pylori (HP) towards these two lesions depends on certain factors related to the bacteria itself, the host, and environmental factors. The aim of this study is to evaluate the prevalence and factors associated with gastric atrophy and intestinal metaplasia in patients infected with HP.

Methods This is a single-center retrospective study conducted over a 15-month period, involving all patients diagnosed with Helicobacter pylori infection through gastric biopsies. The histological characteristics of chronic gastritis were assessed according to the Sydney classification.

Results We included 300 patients with a mean age of 51 years [10-82] and a male-to-female sex ratio of 0.8. Gastric atrophy was found in 24.7 % of patients (n = 74). It was mild in 44.3 %, moderate in 38.6 %, and severe in 17 %. The antrum was the most common location (64.9 %).

In multivariate analysis, gastric atrophy was significantly associated with an age over 40 years (p = 0.027). In our study, atrophy was not related to the density of colonization by HP or the severity of gastritis activity (p = 0.07, p = 0.36).

Intestinal metaplasia was present in 33 patients with a prevalence of 11 %. The antrum was the most frequent location (63.3 %).

The correlation study revealed that metaplasia was significantly associated with an age over 40 years and severe atrophy (p = 0.002, p < 0.001).

Conclusions Intestinal metaplasia and atrophy were significantly associated with an age over 40 years, emphasizing the need for increased vigilance in these patients. The lack of correlation between HP colonization density and these lesions could explain their persistence after bacterial eradication.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP460 Proctitis – looking beyond inflamatory bowel disease

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Abstract Text A 28-year-old man, previously healthy, presented with bloody diarrhea, abdominal pain and weight loss. He also reported fever and migratory polyarthralgias with 2 weeks of evolution. The analytical study revealed hypochromic microcytic anemia (Hb 9.8 g/dL), thrombocytosis (501x10^9/L) and elevated CRP (11.07 mg/dL). The rectosigmoidoscopy showed from the rectum to the distal sigmoid, with decreasing severity, edematous mucosa, with loss of vascular pattern, adherent mucus, some ulcers and small vesicles. Biopsies were performed which revealed reactional and architectural changes in the crypts. When asked about risky sexual behaviors, tha patient mentioned unprotected MSM contacts in the last 12 months. Rectal exudate detected Chlamydia trachomatis, establishing the diagnosis of C. trachomatis proctitis The remaining tests diagnosed HIV/HVC co-infection. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP461 Readmission rates following Double Balloon Enteroscopy in patients with small intestinal bleeding and factors associated with re-hospitalization

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Aims Double balloon enteroscopy (DBE) is a valuable diagnostic and therapeutic tool in the management of patients with small intestinal bleeding. Due to its invasive character its use is normally guided by the findings of Video

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Capsule Endoscopy (VCE). We aimed to assess the long-term efficacy of DBE as expressed by readmission rates and factors affecting it. [1]

Methods We retrospectively analyzed data from consecutive patients with suspected small bowel bleeding on Video Capsule Endoscopy (VCE) that underwent DBE between March 2018-May 2023. Patients diagnosed with tumor, inflammation, sub-epithelial lesion or polyps on VCE were excluded from the study. Readmission of rates post DBE are not negligible. Endoscopic therapy applied during DBE does not only lead to reduced admissions due to bleeding relapse but also to all cause readmission.

Results In total 59 patients (M/F:33/26, mean age:74 ± 8 years old) were included. The mean follow-up was 32 ± 22 months. The initial presentation was occult hemorrhage in 22/59 and overt in 37/59 patients. Blood transfusion was administered in 30/59. Use of antiplatelet/anticoagulants agents was reported in 45/59 patients. VCE previously identified a bleeding point in 35/59 patients while the source of bleeding was recognized and endoscopic therapy was applied in 39/59 when submitted to DBE. A total of 30/59 patients were readmitted at the hospital and the mean period to readmission was 235 ± 323 days. Among them 17/30 patients were re-admitted due to rebleeding form the original site, the majority diagnosed with angioectasias. The re-admission rate numerically increased among non-endoscopically treated patients (9/13, 69.2 % vs 9/17, 52.9 % among treated patients, p = 0.301). Only the use of antiplatelet/anticoagulant agents (19/43, 44.2 % vs 11/14, 78.6 % among non-users, p = 0.033) and the recognition of the bleeding source/application of endoscopic therapy (17/39, 43.6 % vs 13/18, 72.2 % when no therapy applied, p = 0.041) were correlated to patients all-cause readmission while age (73 ± 9 among patients readmitted vs 75 ± 7 years among patients non readmitted, p = 0.250), sex, initial presentation mode, iron supplementation therapy and blood transfusion were not even if numerical differences were spotted**.** Interestingly time to all-cause readmission was shorter among patients previously submitted to endoscopic therapy by DBE (161 ± 197 vs 326 ± 423 days among non-endoscopically treated, p = 0.037).

Conclusions Readmission of rates post DBE are not negligible. Endoscopic therapy applied during DBE does not only lead to reduced admissions due to bleeding relapse but also to all cause readmission.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP462 Endoscopic treatment in peptic stenosis

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Aims Oesophageal peptic stenosis (PS), a benign and infrequent consequence of chronic gastroesophageal reflux disease (GERD), is a condition where upper digestive endoscopy assumes a pivotal role in both diagnosis and therapy. This study endeavors to delineate the epidemiological, endoscopic, and evolving facets of PS.

Methods Conducted retrospectively over an expansive 18-year span from January 2002 to August 2020, this study encompasses individuals diagnosed with PS. Dilatation procedures were executed using Savary-Gilliard candles or hydrostatic balloons

Results A total of 137 patients were included, with an average age of 50.2 years (16-88 years) and a slight male predominance (sex ratio M/F of 1.15). One hundred and twenty-nine dilatation procedures transpired. Chronic GERD history was prevalent in 77 % of patients, enduring an average duration of 6 years (1-17 years). The primary reason for patient consultation was dysphagia in all cases, accompanied by regurgitation in 77 % and pyrosis in 25 %, leading to general state repercussions such as dehydration and undernutrition in 26 %. Upper digestive endoscopy revealed an impassable stenosis in 74.5 % and a surmountable stenosis in 25.5 %, primarily located in the lower 1/3 of the esophagus (75 %), with an average stenosis extent of 3.5 cm. All patients were prescribed proton pump inhibitors (PPI). Dilatation was performed in 63 % of patients using candles with progressive diameters (average 1.6 [1-11]) and in 37.2 % using balloons (average 2.6 sessions [1-10]). Evolution showcased clinical improvement in 64.7 % of patients, with recurrence in 30 %, necessitating additional endoscopic dilatation sessions. No complications were reported.

Conclusions Peptic stenosis, a benign GERD-related complication, finds optimal treatment in endoscopic dilatation coupled with PPI, yielding favorable functional outcomes

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP463 Deep Learning and Capsule Endoscopy: Automatic Panendoscopic Detection of Vascular Lesions

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Aims Capsule endoscopy (CE) is commonly used as the initial exam in situations of suspected mid-gastrointestinal bleeding, after normal upper and lower endoscopy. Although the assessment of the small bowel is its primary focus, detection of upstream/downstream of vascular lesions may also be clinically significant. This study aimed to develop and test a Convolutional Neural Network (CNN)-based model for panendoscopic automatic detection of vascular lesions during CE. [1–9]

Methods A multicentric retrospective study was conducted, based on 1188 CE exams. We used a total of 152312 frames, from seven types of CE devices, of which 14942 had vascular lesions (angiectasia, varices) after triple validation. Data was divided in training/validation (90 %) and test (10 %) groups, in an exam-split design. We conducted a 5-fold cross validation, during training/validation set. This process was iterated five times. Main outcomes were sensitivity, specificity, accuracy, area under the conventional receiver operating characteristic curve (AUC-ROC) and the precision-recall curve (AUC-PR), from the training/validation phase.

Results Mean sensitivity and specificity were 87.5 % (IC95 % 81.5 – 93.6 %) and 99.5 % (IC95 % 99.3 – 99.7 %), respectively. Mean accuracy was 98.4 % (IC95 % 97.7 – 99.1 %). Mean AUC-ROC value was 0.987 (IC95 % 0.980 – 0.995), while AUC-PR value was 0.998 (IC95 % 0.997 – 1.000).

Conclusions This is the first proof-of concept AI deep learning model developed for panendoscopic automatic detection of vascular lesions during CE. The high diagnostic performance of this CNN in multibrand devices addresses an important issue of technological interoperability, allowing it to be replicated in multiple technological settings.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP464 Endoscopic full-thickness resection of colorectal lesions: results of the largest Portuguese cohort

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Aims To evaluate the efficacy and safety of EFTR for treating colorectal lesions in the biggest Portuguese registry.

Methods Consecutive patients undergoing colorectal EFTR with a dedicated full-thickness resection device (FTRD) in our center were prospectively included. Primary outcomes were technical success (macroscopic complete *en bloc* resection), R0 and curative resection rates, procedure-associated adverse events, and recurrence rates. Secondary outcomes were baseline patient and procedure characteristics, including colorectal lesion type, size, location, and oncological outcomes.

Results Between November 2020 and October 2023, 48 patients with colorectal lesions were referred to EFTR. Indications were primary resection of suspected T1 carcinoma (n = 32, 66.7 %); peri-diverticular/peri-appendiceal location (n = 11, 23 %, one of which was also a subepithelial lesion); recurrent adenomas (n = 5, 10.4 %). Patients were, on average, 68 years old (± 11.3 years), and 75 % (n = 36) were men. Median lesion size was 14.8mm (± 4,5 mm), most lesions were IIa or IIa + c (Paris Classification), and 41 % (n = 20) were proximal to the hepatic flexure. A hybrid EFTR with EMR (endoscopic mucosal resection) technique was used in 3 patients. Technical success was achieved in 44 procedures (91.7 %), of which 38 (86.3 %) were R0 resections. The lesion could not be reached or retracted into the cap in the remaining four. The average specimen size was 31mm (± 6.9mm). Concerning histologically confirmed invasive adenocarcinoma (n = 27), the curative resection rate was 41 % (n = 11). Of those with a non-curative resection (n = 16), 11 patients (69 %) underwent oncologic surgery, of which 6 (55 %) had no residual cancer in the surgical specimen. The remaining patients were either deemed unfit for surgery (n = 2) or are on the waiting list (n = 3). During follow-up for local recurrence (n = 11), two patients were subsequently referred for surgery after 6 and 18 months, respectively. The immediate perforation rate was 8.3 % (n = 4), three of which were due to kit malfunction, with one requiring surgery. Delayed hemorrhage was seen in 4,5 % (n = 2) of patients, and appendicitis occurred in one patient (11 % of peri-appendiceal procedures).

Conclusions Our results are overall in line with the largest international series. EFTR proved an effective and relatively safe *en-bloc* resection technique for complex colorectal lesions, reducing surgical overtreatment of benign and malignant lesions. Surgery would have led to overtreatment in 64 % (n = 28). Concerning invasive lesions, we achieved a curative rate of 41 % and, interestingly, there was a high rate of surgical specimens without residual cancer (55 %) on those with a non-curative resection, implying that there might be still room for further improvement on curative resection criteria.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP465 Emergency ERCP: what to expect

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Aims Severe angiocholitis constitutes an urgent indication for endoscopic treatment, represented by endoscopic retrograde cholangiopancreatography (ERCP) and endoscopic sphincterotomy. This ensures proper bile drainage and improves the morbidity and mortality of patients. The aim of our work is to describe the epidemiological aspects and evaluate the results of emergency endoscopic drainage in severe angiocholitis.

Methods This is a retrospective study of patients admitted to the emergency department between January 2010 and September 2023 for severe acute angiocholitis, who underwent therapeutic ERCP. We analyzed patients' epidemiological data, ERCP results, and its complications.

Results We included 153 patients. The average age of the patients was 66.30 years (17-118 years), with no gender predominance (sex ratio M/F was 1.21). Thirteen point seven percent (13.7 %) had a history of cholecystectomy, and 6 cases had choledocotomy with the placement of a Kehr drain. All patients presented with symptoms of acute angiocholitis (pain, fever, then jaundice). The biological assessment revealed thrombocytopenia (< 100,000) in 52 % of cases, functional renal insufficiency (IRF) in 28 % of cases, and both thrombocytopenia and IRF in 20 % of cases. The etiology of severe acute angiocholitis was predominantly lithiasic in 68 % of cases. The average time for ERCP was 3.67 days. Successful catheterization of the common bile duct (CBD) was observed in 73.85 % of patients. Precut sphincterotomy was performed in 35 cases, leading to successful CBD access in 88.57 % of patients. Five patients (14.28 %) experienced precut failure, with 3 undergoing external biliary drainage and 2 requiring surgery. Ninety-seven patients (63.39 %) underwent stone evacuation. Successful placement of the biliary stent was observed in 26.79 % of patients. Six patients (24 %) experienced stent failure, with 66.6 % undergoing percutaneous drainage and 16.6 % undergoing surgery. The main post-ERCP complications included five cases (3.26 %) of bleeding and one case of acute pancreatitis.

Conclusions ERCP has revolutionized the treatment of severe angiocholitis, ensuring effective bile drainage. Its results are satisfactory with lower morbidity and mortality compared to surgical treatment.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP466 EUS-GBD for PTGBD conversion in acute cholecystitis: patient selection is key

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Aims Percutaneous transhepatic gallbladder drainage (PTGBD) is the treatment of choice in surgically unfit patients with acute cholecystitis. However, PTGBD removal after symptom resolution frequently results in recurrence. This study aims to investigate the feasibility of endoscopic ultrasound-guided gall-

bladder drainage (EUS-GBD) using lumen-apposing metal stents (LAMS) for conversion of PTGBD in a real-life setting.

Methods This is a single-center retrospective study which reviewed all consecutive patients with acute cholecystitis who underwent PTGBD and were confirmed unfit for cholecystectomy even after symptom resolution, in which EUS-GBD was then attempted. Evaluated outcomes include technical success, clinical success (defined as resulting in removal of PTGBD), adverse events, and stent patency.

Results Between October 2022 and October 2023 eight consecutive patients (age 68-97, mean 84.25) were included. EUS-GBD attempt was performed 16-180 days after PTGBD (mean 78.85). Technical and clinical success were achieved in four patients (50 %) without adverse events. LAMS size was 10x10 in two cases and 15x10 in two cases; in all cases a coaxial double pigtail was places. Stent patency is 34-407 days (mean 193).

In the remaining four patients EUS-GBD failed for the following reasons: in one case LAMS placement resulted in misdeployment of the distal flange in the gallbladder wall with subsequent perforation and biliary peritonitis that required surgical intervention; one patient developed a spontaneous cholecystoduodenal fistula; two patients displayed a contracted gallbladder in which LAMS placement was deemed unfeasible.

Conclusions In a real-life setting, conversion from PTGBD to EUS-GBD after acute cholecystitis resolution is a feasible technique that requires a thorough patient selection.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP467 Artificial Intelligence and Panendoscopy – Automatic Detection of Pleomorphic Lesions in Multibrand Device-Assisted Enteroscopy

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Aims Device assisted enteroscopy (DAE) is capable of evaluating the entire gastrointestinaltract, with diagnostic and therapeutic purposes. Pleomorphic lesions are found during DAE, namely vascular, protuberant lesions, ulcers and erosions. Nevertheless, DAE´sdiagnostic yield is suboptimal.

Convolutional neural networks (CNN) are multi-layer architecture artificial intelligence models suitable for image analysis, with proven benefits in several Medicine areas, but with a scarcity of studies regarding their application in DAE. Our group aimed to develop a multidevice CNN for panendoscopic detection of pleomorphic lesions during DAE.

Methods 338 exams performed in two specialized centers were retrospectively evaluated, with 152 single-balloon enteroscopies (Fujifilm), 172 double-balloon enteroscopies(Olympus) and 14 motorized spiral enteroscopies (Olympus). The CNN included 40655 images, with a training dataset (5-fold cross validation design) comprising 90 % of the images (n = 36599) and a validation dataset, used to evaluate the model, with the remaining 10 % of the images (n = 4066). The CNN's output was compared to an expert consensus classification. The model was evaluated by its sensitivity, specificity,positive (PPV) and negative predictive values (NPV), accuracy and area-under the precision-recall curve (AUC-PR). [1–5]

Results The CNN had an 94.6 % sensitivity, 98.9 % specificity, 95.8 % PPV, 97.1 % NPV, aglobal accuracy of 96.8 % and AUC-PR of 0.97.

Conclusions Our group developed the first multidevice CNN for the panendoscopic detection of pleomorphic lesions during DAE. The development of accurate deep learning models is of the uttermost importance for increasing the diagnostic yield of an exam that allows a panendoscopic evaluation of the gastrointestinal tract.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP468 Is balanced propofol sedation safe in elderly patients over 80 years of age undergoing ERCP?

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Aims Balanced propofol sedation is a commonly used method in endoscopic procedure . Endoscopic retrograde cholangiopancreatography (ERCP) requires deep sedation and the evidence for balanced propofol method in elderly patients undergoing ERCP is still insufficient. The aim of this study is to investigate the safety of balanced propofol sedation used in ERCP in patients over 80 years.

Methods: A retrospective analysis is performed on patients with ERCP conducted at Chosun university hospital from 2019 January 1 to 2020 December 31. Among a total of 1199 ERCP procedures, 375 procedures of ERCP(238patients) for patients over 80 years of age are finally enrolled. In all tests, midazolam 1mg bolous injection is administered followed by 10-20mg of propofol to lead to deep sedation. For each test, blood pressure, heart rate, oxygen saturation and adverse events are recorded before, during, and after the procedure.

Results In a total of 375 tests, the average amount of propofol used is 89.09 ± 62.29mg(1.61 ± 1.07mg/Kg) and the procedure time is 29.25 ± 13.39 min. During procedure, patient with hypotension is 9 procedures (2.4 %) and patients with bradycardia are 19 procedures (5.06 %). There are no statistically significant factors in hypotension and bradycardia. Patients with hypoxemia are 26 procedures (6.93 %) and hypoxemia show statistical significance in relation to procedure time(p = 0.011) and propofol dose(p = 0.005). Most of patients are recovered with O2 supply through nasal cannula. Bag-valve-mask ventilation is performed in 2 patients, and all patients are recovered after the procedure and there are no sequelae.

Conclusions Even if there are side effects of balanced propofol, sedation using balanced propofol is considered safe in patients over 80 years of age undergoing ERCP.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP469 Endoscopic submucosal dissection vs. endoscopic mucosal resection for adenoid lesions involving the dentate line: a retrospective, multicenter, case-control study

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Aims The ideal treatment of epithelial neoplastic rectal lesions with involvement of the dentate line is a controversial issue. Piece meal endoscopic mucosal resection (EMR) is the most commonly used resection technique, but is associated with high recurrence rates. Endoscopic submucosal dissection (ESD) has been shown to be safe and effective for the treatment of rectal lesions, but the available evidence on its application close to the dentate line is low.
Aim of our study is to compare ESD and EMR for the treatment of epithelial rectal lesions with involvement of the dentate line.
Methods We identified all cases of endoscopic resections of rectal lesions involving the dentate line performed in two German high-volume centers between 2014 and 2022. Periinterventional and follow-up data were collected and retrospectively analyzed.
Results We identified 68 ESDs and 62 EMRs meeting our inclusion criteria. ESD showed a significant advantage in en bloc resection rates (89,7 % vs. 9,7 %, p,0,001) and complete resection rates (72,1 % vs. 9,7 %, p,0,001). The overall curative resection rate was similar in both groups (ESD: 92,6 %, EMR: 83,9 %, p = 0,324) whereas in the subgroup of low-risk adenocarcinomas ESD was curative in 100 % of the cases vs. 14 % in the EMR-group (p = 0,002). There was no local recurrence after ESD vs. 25,8 % after EMR (p < 0,0001) and these patients required in average 3 further interventions.
Conclusions ESD is superior to EMR for the treatment of epithelial rectal lesions with involvement of the dentate line and should be considered treatment of choice for these tumours.
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP470 Novel covered stent with endoluminal vacuum therapy for treatment of gastric leaks after sleeve gastrectomy

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DOI 10.1055/s-0044-1783759
Aims Laparoscopic sleeve gastrectomy (LSG) is a surgical approach to treat morbid obesity. It restricts the stomach's size to induce satiety and cut out fundal ghrelin-producing cells to decrease appetite. Staple gastric line leaks, bleeding, and strictures are the complications reported following LSG [1, 2]. We showed novel endoscopic treatment of staple gastric line leaks by VacStent-GI after LSG.
Methods we perform VacStentGI placement with trans-nasal derivation of the catheter, suction, and drainage of secretion via vacuum pump. VacStentGI is novel stent which combined endoscopic vacuum therapy with covered stent. The patient is a 61-year-old man with obesity who underwent LSG. The complication appeared four weeks after LSG with the onset fever, retrosternal pain and cough. The diagnosis gastric leak was made by CT scan and then by barium swallow.
Results The procedure of placement took fifteen days in which two VacStent-GI were applied, one every seven days. The patient ate an oral semi-liquid diet during treatment. The second and last one VacStentGI is removed on the fifteenth day with closure of the gastric leaks. A barium swallow seven days after the removal of the last one VacStentGI showed the complete closure of the gastric leaks. No adverse events have occurred.
Conclusions VacStentGI is an effective endoscopic treatment of gastric leaks after LSG. Larger clinical studies are needed to confirm efficacy.
Conflicts of interest Authors do not have any conflict of interest to disclose.
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eP471V An unusual case of a post gastrectomy anastomotic leak treated successfully with VACstent

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Abstract Text Anastomotic leaks can contribute to prolonged length of stay and significant morbidity for surgical patients. Smaller leaks tend to respond well to conservative measures in the form of cessation of oral intake and treatment with intravenous antibiotics. We present a case of a 58 year old female that had a persistent post gastrectomy anastomotic leak failing to heal through conservative measures. Index endoscopic assessment revealed an inadvertently placed surgical drain in the oesophagus which was contributing to the ongoing anastomotic leak. This was removed and the associated defect was covered and treated using a VACstent. Following VACstent removal at day 7 the leak had successfully healed which was confirmed both endoscopically and radiographically. No stent exchange was needed. The patient was discharged 7 days following VACstent removal.
Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/18ef76f1-4b2d-45f8-8096-879965b31f66/Uploads/13821_VACstent(1).mp4
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP472 Colon Capsule Endoscopy as an Alternative to CT Colonography in those with an Incomplete Colonoscopy

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Aims Alternatives to colonoscopy need to be considered in those with a failed colonoscopy. Colon capsule endoscopy (CCE) has been shown to have comparable, and for certain indications, higher diagnostic yields than CT colonography (CTC). However, it has lower completion rates, thus careful patient selection is vital. In Ireland, CTC waiting lists nationally exceed 12 months and were over 18 months in University Hospital Galway. Our aim was to examine CCE as an alternative to CTC for failed colonoscopy
Methods We reviewed clinical indications and patient history for all 99 patients on the CTC waiting list. We included patients with a preceding incomplete colonoscopy. We applied our exclusion criteria: age > 70 years, insulin dependent diabetes, poor bowel prep at colonoscopy, dialysis dependant CKD, or known strictures. The remaining patients were offered CCE as an alternative to CTC and listed on agreement.
Results Overall, 41 were eligible. Of these, 4 had already undergone colonoscopy, and 1 a right hemi-colectomy. A further 11 declined; 4 due to the extra litre of prep, 6 dysphagia, and 1 concern about new technology. The remaining 25 were listed; median age was 63 years, 68 %(n = 17) were female and 32 %(n = 8) male.
To date, 21 patients have undergone CCE. There were 6 failed CCEs. 1 was unable to swallow the capsule, 1 had inadequate caecal views, and 4 had poor bowel prep. Of those with poor bowel prep, all were female, and the median age was 63. 50 %(n = 2) had risk factors for incomplete bowel prep, and one had a sigmoid stricture discovered (and transversed) on CCE. The final patient had no identified risk factors for incomplete bowel prep.

71 %(n = 15) of CCEs were successful with patients subsequently removed from the CTC waiting list. 29 %(n = 6) of CCEs found polyps necessitating referral for attempted repeat colonoscopy, 5 %(n = 1) for sigmoidoscopy and 5 %(n = 1) for surveillance CCE, in accordance with ESGE guidelines. Furthermore, based on CCE findings, 1 was referred for colonoscopy (for further evaluation of ileitis), 1 for OGD, and 1 for dedicated small bowel capsule endoscopy. 19 %(n = 4) required no further endoscopic investigation.

Conclusions CCE is a useful diagnostic alternative to CTC. Careful patient selection should be performed to boost its completion rates, and in turn reduce unnecessary CTCs and colonoscopies.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP473 EUS-guided transgastric drainage of pancreaticopleural fistulas- single center experience

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Aims Pancreaticopleural fistula (PPF) poses a rare and challenging complication of pancreatitis, leading to respiratory symptoms. With no established standard of management, endoscopy emerges as an alternative approach. However, challenges arise with transpapillary drainage during ERCP, particularly when inflammatory changes affect periampullary area. While endoscopic ultrasound (EUS) guided drainage presents a potential alternative, its efficacy and safety in this context have not been evaluated. This case report aims to assess efficacy and safety of EUS-guided transgastric drainage of PPF.

Methods A prospective cohort study analyzed the outcomes of EUS-guided drainage in four patients with PPF. The study was carried out at the Department of General, Gastroenterological, and Oncological Surgery, Ludwik Rydygier Collegium Medicum in Bydgoszcz, Nicolaus Copernicus University in Torun, between 2021-2023.

Results PPF was identified in four patients (all male; mean age 50.25 [42–61] years). Dyspnea was observed in all patients (100 %), with one patient experiencing respiratory failure. 50 % of patients presented with epigastric pain, and 75 % exhibited fever. Organ failure occurred in two patients (25 % each for kidney and liver), and sepsis was diagnosed in one patient (25 %). CT revealed PPF communication with the left pleural cavity in 75 % of patients and the right pleural cavity in 25 %. Chronic pancreatitis was diagnosed in all patients. Despite unsuccessful transthoracic drainage in all cases, and failed transpapillary drainage during ERCP due to severe stenosis of the pancreatic duct (25 %), inflammatory tumor of the pancreatic head (25 %), and inflammatory periampullary infiltration (50 %), EUS successfully visualized fistula tracts from the pancreatic body (50 %), tail (25 %), and neck (25 %). The mean pleural collection size was 107.5 mm (80-150mm), with a mean distance of 18.75 mm (15-25mm) between the fistula tract and gastric wall, and a mean pancreatic duct size of 11.75 mm (10-15mm). In all patients (100 %), EUS-guided transgastric drainage of the PPF was performed, with punctures of the fistulas' tract from the gastric cardia (50 %) and body (50 %), followed by guidewire advancement and tract dilation using a 10Fr cystotome. Double pigtail stents (7Fr, 9-12cm) were placed in 3 of patients, and a lumen-apposing metal stent (30x16mm) in one. Technical and clinical success was achieved in all patients with no adverse events. The mean hospital stay was 7.75 days (5-12 days), and symptoms resolved in all patients. Stents were removed in two patients after 6 months, and during a mean follow-up period of 34 months (29-39 months), no recurrence was observed. Complete closure of fistula tracts with collection resorption was evident in CT. Two patients remained asymptomatic during follow-ups of 3 and 1 months, with stents in situ, and showed improvement in imaging.

Conclusions In conclusion, EUS-guided transgastric drainage might be a safe and effective alternative for managing PPF refractory to conventional interventions.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP474 Predictive factors of poor response to the first pneumatic dilation session in achalasia

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Aims Primary achalasia is a motility disorder of the esophagus, and its management in our country relies on pneumatic dilation (PD) or Heller myotomy. The aim of our study was to describe the clinical and paraclinical aspects of achalasia and identify factors predisposing to a poor response after the first PD session.

Methods This was a retrospective study spanned 13 years, from 2010 to 2023, including all patients diagnosed with achalasia and treated with PD. Dilation was performed using a 30 mm balloon during the first session. Treatment effectiveness was assessed by the Eckart Score, defining a poor response to the first session as a score > 3. Patients with secondary achalasia were not included.

Results We collected data from 25 patients, with a mean age of 47 ± 21.3 years. The female-to-male ratio was 1.08. Dysphagia was present in all cases, and food impaction occurred in 2 patients. The mean diagnostic delay was 23.4 ± 11.3 months. Gastroscopy revealed a notch (N = 14, 56 %), rosette appearance of the cardia (N = 3, 12 %), and esophageal stasis (N = 5, 20 %). It was normal in 12 % of cases. Manometry showed achalasia type 1, 2, and 3 in 68 %, 20 %, and 12 % of patients, respectively. The mean lower esophageal sphincter (LES) pressure was 33.9 ± 5.9 mmHg and the mean integrated relaxation pressure (IRP) was 27.2 ± 6 mmHg. Seven patients had undergone Heller myotomy previously, with a mean surgery-to-PD interval of 8.2 ± 4.3 years. After the first PD session, a poor response was observed in 48 % of patients (N = 12). The mean symptoms recurrence interval was 8.5 ± 5.6 months. One session was sufficient for 13 patients, while 12 patients required a second session. In total, 37 PD sessions were performed with an average of 1.5 dilations per patient.

In univariate analysis, age < 50 years, duration of symptoms over 24 months, initial LES pressure < 35 mmHg, and a history of Heller myotomy were significantly associated with a poor response to the first PD session ($p = 0.043$, $p = 0.027$, $p = 0.02$, and $p = 0.002$, respectively).

In multivariate analysis, a symptom duration of over 24 months, initial LES pressure < 35 mmHg, and a history of Heller myotomy were independent predictive factors of a poor response to the first PD session ($p = 0.047$, $p = 0.009$, $p = 0.001$, respectively). The type of achalasia was not identified as a risk factor for a poor response ($p = 0.12$).

Conclusions Pneumatic dilation is an effective, simple, and safe treatment for achalasia. Its indication should consider the presence or absence of predictive factors for a poor response.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP475 Results of Pneumatic Dilation in Naive Patients with Achalasia

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Aims Primary achalasia is a motility disorder of the esophagus, and its management in our country relies on pneumatic dilation (PD) or Heller myotomy.

The aims of our study was to describe the clinical and paraclinical aspects of achalasia and identify factors predisposing to a poor response after the first PD session conducted as the initial treatment.

Methods This is a retrospective study conducted over 13 years, from 2010 to 2023, including all patients diagnosed with achalasia based on clinical, endoscopic, and manometric criteria, and treated with PD. Dilation was performed using a 30 mm balloon during the first session. Treatment effectiveness was

evaluated using the EckartScore. A poor response to the first session was defined as a score > 3. Subjects with secondary achalasia were not included. Patients who had previously undergone Heller myotomy were excluded.

Results Twenty-five patients were initially included, of which 7 were excluded. In total, data from 18 patients were collected, with a mean age of 53.8 ± 20.7 years. The female-to-male ratio was 0.63. Dysphagia was present in all cases, and food impaction occurred in one patient. The mean diagnostic delay was 22.8 ± 12.8 months. Gastroscopy revealed a notch (N = 11, 61.1 %), a rosette appearance of the cardia (N = 3, 16.7 %), and esophageal stasis (N = 1, 5.6 %). It was normal in 16.7 % of cases. Manometry showed achalasia type 1 in 72.2 % and type 2 in 27.8 % of patients. The mean lower esophageal sphincter (LES) pressure was 34.8 ± 6.5 mmHg, and the mean integrated relaxation pressure (IRP) was 26.9 ± 4.6 mmHg. After the first PD session, a poor response was noted in 27.8 % of patients (N = 5). The symptoms recurrence interval was on average 4.4 ± 1.5 months. One session was sufficient for 12 patients, while 6 others required a second session. At last, 24 PD sessions were performed with an average of 1.3 dilation per patient.

In univariate analysis, symptom duration of more than 24 months and initial LES pressure < 35 mmHg were significantly associated with a poor response to the first PD session (p = 0.022 and p = 0.007, respectively).

In multivariate analysis, the initial LES pressure < 35 mmHg was an independent predictive factor of a poor response to the first PD session (p = 0.017). The type of achalasia was not identified as a risk factor for a poor response (p = 0.5).

Conclusions Pneumatic dilation is an effective, simple, and safe treatment for achalasia. Its indication should take into consideration the presence or absence of predictive factors of a poor response.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP476 Mini-invasive upper gastrointestinal examination with the new magnetically assisted capsule endoscopy: first experience in a tertiary care center

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Aims The aim of the study is to verify the feasibility of the upper endoscopic examination with the magnetically assisted capsule endoscopy

Methods This is a prospective observational study, including patients who underwent mini invasive examination with magnetically assisted capsule endoscopy in our tertiary center between May 2023 and November 2023.

We enrolled consecutive patients willing to participate to the observational study and with an indication for upper gastrointestinal examination.

Results Overall, we observed 19 patients who underwent magnetically assisted capsule endoscopy, 16 continued the small bowel examination after the gastric evaluation. The mean age was 46.4 years (SD ± 17.2), 73.3 % were female and the major indications were reflux disease 52.6 % andIron deficiency anemia 31.5 %. The mean time for the gastric evaluation was 23.3 minutes (SD ± 5.8 min) and positive findings were present in 13 patients (68.5 %). In the subgroup of patients who underwent small bowel examination, positive findings were observed in 10 patients (62.5 %). No adverse events were observed in this cohort of patients.

Conclusions Magnetically assisted capsule endoscopy is feasible and safe in patients requiring an upper examination and it allows at the same time the exploration of the upper and the mid gastrointestinal tract.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP477 Elevating Gastrointestinal Endoscopy Services in India: A Pioneering Study on Real-Time Quality Indicators

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Aims An integral component of any Gastrointestinal Department (GI) is the Endoscopy unit (EU). The primary objective should be to provide high-quality endoscopy services. To achieve this, developing, refining, and implementing various necessary steps form the backbone, which is measured in the form of Quality Indicators (QI). Apart from the endoscopy procedure, the pre-and post-procedure processes also impact patients' experiences and safety. Hence, this study was planned as the first in India to measure the quality indicators of the Endoscopy unit in real-time. [1–2]

Methods QI are parameters used to compare interventions designed to achieve a predefined goal. These indicators promote best practices among endoscopists and help them provide evidence-based care for patients. We designed a questionnaire based on the latest ESGE[1] and ASGE[2] guidelines to improve patient metrics and collected data based on that, thereby validating the guidelines, to provide the quality indices of our EU. A task force made up of hospital managers, gastroenterologists, and heads of nursing made a formal list of QI and agreed upon 15 questions. A designated Guest Relationship Executive (GRE) pre- and post-procedure asked patients to rate the endoscopy services from 1 to 10. The quality of services was graded as follows: 1-3 (Poor), 4-6 (Average), 7-9 (Excellent), and 10 (Outstanding). The data were entered on a Tab-based questionnaire in four different languages. The study duration was from 1st July to 31st December 2021, with a total of 13,042 patients surveyed.

Results Our data for all 15 indicators were above 8, with the mean being 8.32, demonstrating excellent services after a survey of 13,042 patients. The process involved a composite method for calculating QI. We considered A. Patient experiences; B. Efficiency and Operations, mainly in our study. Some salient questions were: Rate the availability of language translation services (8.57/10); Rate the information regarding the indication of the endoscopic procedure (8.38/10); Rate the pre-procedure review *communicating* about key elements of the procedure (8.32/10); Rate the discharge instructions provided (8.66). This study will be the first data from any major endoscopy units, contributing to the ongoing discourse on improving endoscopy services and patient outcomes.

Conclusions It should provide a benchmark for other units to improve the quality of care, catering to a high number of patients as needed to serve our population. Efficiency and operations parameters measure good leadership and hospital management skills for the improvement of endoscopy suites and daycare facilities. These QIs should serve as a starting point from which endoscopy units could build during ongoing quality improvement efforts. The limitation of the data was that parameters like employee experience were not calculated.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP478 Diagnosis of Gastrointestinal Subepithelial Lesions Using a Novel Endoscopic Ultrasonography Imaging Technique

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Aims Gastrointestinal stromal tumors (GIST) are the most common malignant subepithelial lesions (SELs) in the GI tract. Due to GIST's notable vascularity and deep location, endoscopic ultrasound (EUS) is the first-line diagnostic approach. Color-doppler EUS, power-doppler EUS, and e-FLOW EUS, are useful for real-time vascularity detection; however, they are not effective for fine/slow flow vessel detection. Therefore, contrast enhanced EUS (CE-EUS) is proposed as a first-line approach. To avoid contrastrelated adverse events, a novel diagnostic method, detective flow imaging endoscopic ultrasonography (DFI-EUS) has emerged. We aim to evaluate the utility of DFI-EUS in the diagnosis and differentiation of gastrointestinal SELs (GIST and leiomyomas) in comparison to CE-EUS.

Methods A single-center, prospective, diagnostic study was conducted between December/2022 and October/2023. The study protocol was approved by the IRB and was conducted in accordance with the Declaration of Helsinki. Patients ≥ 18 years old with suspected gastrointestinal SELs were enrolled for EUS vascularity assessment. Patients with contraindication for contrast agent administration, any clinical condition rendering EUS-DFI or CE-EUS unfeasible were excluded. SELs' assessment was performed by two expert endosonographers (blinded to patient's clinical information) using DFI EUS, followed by a CE-EUS examination (using Sulphur hexafluoride contrast agent) for diagnostic confirmation. The identification rate along with diagnostic accuracy of DFI-EUS and CE-EUS based on histopathological confirmation was the primary endpoint. The type of vascularization (microvascular/microvascular) along with endosonographic appearance (hyper/hypovascular) were also recorded. [1–3]

Results A total of 24 patients were included; 54.2 % females. The examined lesions were 70.8 % GIST and 29.1 % leiomyomas. Predominantly, lesions were found in the stomach (91.7 %) and within the muscularis propria layer (91.7 %). All GIST were hypoechoic and mainly heterogeneous, larger than leiomyoma (> 2 cm; p < 0.001). Tortuous vessels were significantly identified in GIST (p 0.045). Both CE-EUS (94.1 %; p 0.003) and DFI-EUS (94.1 %; p < 0.001) successfully detected GIST. The overall sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) of DFI EUS was comparable to CE-EUS with rates of 94.12 % vs 94.12, 100 % vs 99.64 %, 100 % vs 99.85 % and 87.5 % vs 99.64 %, respectively. A strong inter-rater agreement between CE-EUS vs DFI-EUS was detected with a kappa of 0.903 (p < .001).

Conclusions DFI-EUS proves to be a reliable diagnostic tool, exhibiting high diagnostic accuracy, comparable to that of CE-EUS in the differentiation of GIST and SELs in the gastrointestinal tract. Larger multicenter studies are necessary to position this alternative for SELs' differentiation in clinical practice.

Conflicts of interest Carlos Robles-Medranda is a key opinion leader and consultant for Pentax Medical, Steris, Medtronic, Motus, Micro-tech, G-Tech Medical Supply, CREO Medical, EndoSound, and mdconsgroup. All other authors declare no conflict of interest.

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eP479 Endoscopic therapy in primary sclerosing cholangitis: what we learn in 30 years experience

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Aims Data of the long-term outcomes of ERCP to detect cholangiocarcinoma and treat dominant strictures in Primary sclerosing cholangitis (PSC) are scarce. This study aims to analyze the long-term results of endoscopic treatment of a large cohort of PSC patients.

Methods This is a retrospective multicenter cohort study. Patients who underwent ERCP for PSC were retrospectively identified. Demographic data, preoperative imaging, clinical features, ERCP indication, type of endoscopic treatment and complications were recorded. Follow-up was obtained by telephone contact or medical examinations.

Results One hundred and thirty-five patients (55.6 % male, mean age 47y, range 79-25) underwent ERCP for PSC treatment between January 1990 and December 2020 in two high-volume endoscopic centers and were retrospectively enrolled in the study. The median duration of the disease before ERCP was 3.4 ± 4.4 years. Forty-four patients (32 %) had inflammatory bowel disease, 39 (89 %) ulcerative colitis and 5 (11 %) Crohn's disease.

Indications for ERCP were: jaundice (n = 58, 42 %), recurrent cholangitis (n = 41, 30.3 %), anicteric cholestasis (n = 25, 18.5 %), and pruritus (n = 8, 5.9 %). At the time of the first ERCP, patients with dominant strictures had median bilirubin value of 6.5 mg/dl (± 7.7 mg/dl) and a median AST level of 89 IU/l (± 70.5). The median number of ERCPs performed for each patient was 5.3 (range 1-37). In 9 (6.6 %) cases ERCP failed and percutaneous treatment was required.

The presence of one dominant strictures in the main duct was reported in 31 patients (22.9 %), a hilar stricture in 19 (14 %), intrahepatic strictures in 26 (19.2 %), and a combination of intrahepatic and extrahepatic strictures in 59 (43 %). Ninety-five patients (70 %) received at least one biliary stricture dilation and 58 patients (42 %) received biliary stenting. Forty patients (29.6 %) were treated exclusively with balloon dilation, 13 (9.6 %) received exclusively stenting, and the remaining patients had a combination treatment. Brush cytology was performed in 82 patients (60.7 %), high-grade dysplasia and cholangiocarcinoma were detected in 6 (7.3 %) and 9 (10.9 %) patients, respectively. ERCP related adverse events were acute pancreatitis (2.9 %), bleeding (4.4 %), and cholangitis (2.2 %). After a mean follow up of 6.9 ± 6.3 years, 31 patients (22.9 %) underwent liver transplantation.

Conclusions ERCP is a safe and effective treatment in the management of PSC, however a large number of ERCP procedures are generally needed. Moreover, ERCP for PSC patients is often considered a "bridge" treatment to liver transplantation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP480 Long-term outcomes after endoscopic removal of malignant colorectal polyps: results from a 10-year cohort

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Aims To evaluate long-term outcomes after endoscopic removal of malignant colorectal polyps.

Methods A single-center retrospective cohort study was conducted to evaluate outcomes after endoscopic removal of malignant colorectal polyps between 2010 and 2020. Residual disease rate and nodal metastases after secondary surgery; and local and distant recurrence rate for those with at least 1-year follow-up were investigated. Event rates for categorical and means for continuous variables with 95 % confidence intervals were calculated; Fisher's exact test and Mann-Whitney test were performed. Potential risk factors of adverse

outcomes were determined with univariate and multivariate logistic regression models.

Results 135 lesions (mean size: 22.1 mm, main location: 42 % rectal) of 129 patients (mean age: 67.7 years; 56 % male) were enrolled. Proportion of pedunculated and non-pedunculated lesions was similar, with en bloc resection in 82 % and 47 %, respectively. Tumor differentiation, distance from resection margins, depth of submucosal invasion, lympho-vascular invasion and budding was adequately reported in 89.6 %, 45.2 %, 58.5 %, 31.9 %, and 25.2 %, respectively. Residual tumor was found in 10, and nodal metastasis in 4 out of 41 patients who underwent secondary surgical resection. Univariate analysis identified piece meal resection as risk factor for residual malignancy (OR 1.74, p = 0.042).

At least 1-year follow-up was available for 117 lesions of 111 patients (mean follow-up period: 5.59 years). 54 %, 30 %, 30 %, 11 %, and 16 % of patients presented at 1-year, 3-year, 5-year, 7-year, and 9-10-year surveillance examinations. Adverse outcomes occurred in 9.0 % (local recurrence and dissemination in 4 and 9 patients, respectively), with no difference between patients undergoing secondary surgery and surveillance-only.

Conclusions Reporting of histologic features, and adherence to surveillance colonoscopy needs improvement. Long-term adverse outcome rates might be higher than previously reported, irrespective of whether secondary surgery was performed or not.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP481 Yesterday I said tomorrow. Colorectal ESD beginnings: a single center, single operator team experience

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Aims We aimed to present the preliminary results of the ESDREG colorectal endoscopic submucosal dissection (ESD) prospective registry (Clinical Trials number NCT06033976).

Methods We included adult patients with indication for colorectal ESD as per European Society of Gastrointestinal Endoscopy (ESGE) Guidelines, between July 2020 and November 2023. These were the initial unsupervised colorectal ESD procedures performed by a single operator, in a single academic center.

Results 29 patients with 30 lesions were included, 25 patients with 26 lesions in 2023. 14 (46 %) were women, with mean age 64.34 (47 – 79). 12 lesions were colonic, 18 were rectal (3 bordering the dentate line and one an ileorectal anastomosis). 19 of 30 lesions (63.33 %) were laterally spreading tumors (LST), of which 10 granular mixed type, 6 granular homogenous and 3 non-granular pseudo-depressed type. The remaining 11 of 30 lesions were flat Paris IIb type (3 lesions) and sessile Paris Is type (8 lesions). Excluding two flat, Paris IIb rectal lesions bordering the dentate line and the ileorectal anastomosis of 12mm and 15mm respectively, the remaining 28 lesions mean size was 46.25mm (20 – 150). The ESD technique was conventional (flap plus gravitation) in 26 cases, tunnel in 2 cases and clip and band in 2 cases. ESD was successful in 26 cases (86.67 %), surgery and two additional ESD sessions were needed in one case for a very large rectal lesion and surgery was needed in three other cases (two ascending and one sigmoid colonic lesions). Of the 26 successfully resected lesions, 25 were removed en-bloc (96.15 %) and one by piece-meal hybrid ESD for a rectal lesion bordering an ileorectal anastomosis. Hybrid ESD was used for 2 of the 25 successful en-bloc ESD resections. There were no perforations, one patient experienced a delayed bleeding at 10 days which needed endoscopic hemostasis. 25 of 26 lesions were R0 resection (96.15 %), there was one lateral R1 resection for an adenoma. Of the 26 successful ESD lesions, 18 were adenomas, 2 superficial and 2 deep submucosal invasive adenocarcinomas and one NET G3 lesion developed in an adenoma (3 histopathological results are pending). Excluding 3 lesions with pending histopathology, ESD was curative in 19 of 23 lesions (non-curative for 2 deep submucosal adenocarcinomas, one NET G3 lesion developed in an adenoma, one adenoma with R1 lateral resection). One deep submucosal adenocarcinoma received additional surgery and another complementary radiotherapy, one R0 resected NET G3 adenoma is pending complementary surgery.

Conclusions Starting colorectal ESD in a single center by a single operator team is feasible and with good initial results.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP482 Endoscopic approach with multiple plastic stents in postcholecystectomy biliary strictures: single-center retrospective experience

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Aims Cholecystectomy is one of the most common surgical procedure performed nowadays (ie, 750,000 cases a year in the United States) and bile duct injury presents a formidable challenge for physicians that requires a prompt treatment in order to avoid chronic cholestasis, recurrent cholangitis, and secondary biliary cirrhosis. Post-cholecystectomy biliary strictures (PCBS) occurring in 0–0.6 % of laparoscopic cholecystectomy cases. Endoscopic retrograde cholangiography (ERC) with multiple plastic biliary stents placed sequentially and side-by-side (multistenting – MPs), is a minimally invasive alternative to surgery with good outcome, also in post-transplant biliary stricture [1].

Methods This is a retrospective study in a single referral-center for biliopancreatic disease of Sicily, evaluating the efficacy of MPs in PCBS. From September 2014 to January 2023, were retrospective enrolled in the study all the patients with PCBS treated with the MPs using more than 3 (10 Fr) sequential stents and with a follow-up period more than 6 months. During the first ERC, a maximum number of plastic stents (10 Fr) were placed. In subsequent ERCs, scheduled every 2-3 months up to a maximum of 10-12 months, additional stents were inserted, as many as possibile, with standard removal of the previously placed stents in order to check the residual stenosis or evaluate the stricture resolution.

Results Twelve patients were included in the study (41.6 % men; mean age, 65 years). Ten patients were excluded for lack of follow-up or low number of plastic stents placed. 7 patients (58 %) reported a stricture close to the main hepatic confluence (< 20 mm). The mean number of ERCs and stents placed was 3.8 (± 1.0) and 3.9 (± 1.2), respectively. The median time was 8,7 months (4-25). Clinical success (stricture resolution at fluoroscopy and normalization of cholestasis) was achieved in 11 patients (91.3 %). Procedure-related mortality or adverse events was not registered. Stricture recurrence was reported in just one case (9 %), successively treated with a novel and effective MPs.

Conclusions PCBSs with MPSs is safe and effective at long-term follow-up. It requires multiple ERCs sessions increasing the anestesiologist risks of multiple sedations, but gaining high efficacy and low recurrence rate.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP483 Evaluation of Efficacy, Safety and Patients' Satisfaction of Therapeutic Switch from Off-Label Swallowed Topical Corticosteroids to Budesonide Orodispersible Tablets in patients with Eosinophilic Esophagitis

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Aims Swallowed Topical Steroids (STCs) have been used off-label for eosinophilic esophagitis (EoE) treatment. Recently a new designed formulation of budesonide orodispersible tablet (BOT) has been specifically approved as EoE official therapy. The aim of our study was to evaluate efficacy, safety and patients' satisfaction of therapeutic switch from off-label STCs to BOT (NCT05594849).

Methods Endoscopic and histologic evaluation was performed under STCs and 12-16 weeks after switching to BO. Moreover, before and after switch, specific questionnaires were used to assess severity of symptoms (DSS, DSQ), quality of life (EoE-QoL) and satisfaction of the treatment (19 items from 0 to 4 about modality of assumption, taste and perception of safety).

Results Thirty-one EoE patients, PPI non responders, receiving off-label STCs (74.2 % fluticasone, 25.8 % budesonide), were enrolled. Endoscopy data were available in 28 patients (90.3 %). Before the switch, 10/28 patients (35.7 %) showed active disease (> 15 EOS/HPF), 2/28 (7.1 %) were in histologic remission (< 15 EOS/HPF) and 16/28 (57.1 %) were in deep remission (< 6 EOS/HPF). Out of 10 histologically active patients, 9/10 (90 %) achieved deep remission, and 1 (10 %) remained active in BOT. Among patients in histologic remission in STCs, 17/18 (94.4 %) maintained/achieved deep remission and 1/18 (5.5 %) relapsed. Overall, there was a significant increase in the number of patients in deep remission after the switch (BOT 26/28 (92.8 %) vs 16/28 (57.1 %); p 0.002).Regarding to safety, no differences were found in oral/esophageal candida infection after the switch (BOT 2/28 (7.1 %) vs STCs 3/28 (10.7 %), p 1). In BOT a significant improvement of symptoms severity was found for DSS score (BOT-DSS 2.63 ± 2.21 vs STCs-DSS 5.23 ± 2.69, p 0.002) and DSQ score remained stable (BOT-DSQ 0.52 ± 1.99 vs STCs-DSQ 0.35 ± 0.91, p 0.30). There was an improvement in patients' EoE-QoL in BOT, although it was not significant (STCs-EoE QoL 58.03 ± 21.34, BOT EoE QoL 62.85 ± 31.38, p 0.10). Finally, the satisfaction score showed a significant major willing of assumption of BOT rather than STCs (BOT 53.38 ± 12.66 vs STCs 37.86 ± 11.55, p 0.001).

Conclusions The switch from off-label STCs to BOT is effective, safe and well tolerated by patients. BOT treatment was effective to maintain previous remission and to achieve a deep histologic remission in those patients who showed previously an active disease. Moreover, patients reported a significant major willing of assumption of BOT.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP484 Factors that affect fluoroscopy duration and radiation dose during ERCP in a tertiary center: a retrospective analysis of a prospective database

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Aims Endoscopic retrograde cholangiopancreatography (ERCP) constitutes a challenging procedure which is associated with increased technical difficulty and higher utilization of advanced techniques that can result in prolonged procedural duration and excess exposure to ionizing radiation. The aim of this study is to present data regarding fluoroscopy during ERCP from a large reference center and to explore factors associated with radiation dose and fluoroscopy duration during ERCP.

Methods We retrospectively interrogated a prospectively collected single-center database of adult patients undergoing ERCP between 09/2021 and 6/2023 in a tertiary greek public hospital. Detailed data concerning patient, endoscopist and procedural parameters including ERCP indication, procedure difficulty (defined using the Schutz score), types of interventions and fluoroscopy were recorded. Non parametric statistical methods were used (Mann–Whitney U-test and Kruskal–Wallis test) for the analysis.

Results In total, 684 ERCPs were included (mean patient age 72.3 ± 13.6 years, 50.3 % men) in the analysis. Mean procedure time was 34.3 ± 15.5 minutes, carried out by three different endoscopists (n_1 = 241, 35.4 %, n_2 = 218, 32.1 %, n_3 = 221, 32.5 %). The majority of ERCPs were performed for treatment of choledocholithiasis (67.3 %) and were classified as of intermediate difficulty according to Schutz scoring system [Schutz score 2 (n = 312, 47.3 %)]. The median fluoroscopy duration was 2.5 minutes (IQR = 2.8 min) and the median radiation dose was 1047.3 μGym² (IQR = 1333.9 μGym²). ERCPs performed with an indication of biliary tract neoplasm (e.g. cholangiocarcinoma, liver metastases) were associated with prolonged fluoroscopy duration and increased radiation dose comparison to the rest of the indications [5.1min (IQR = 6.6 min) vs. 2.5min (IQR = 2.8), p = 0.008 and 2485.85 μGym² (IQR = 3052.4 μGym²) vs. 1038.5 μGym² (IQR = 1281.4 μGym²), p = 0.015 respectively]. ERCP difficulty was also related with increased radiation; ERCPs with Schutz score ≥ 3 were associated with increased radiation dose and fluoroscopy duration compared with ERCP procedures evaluated as Schutz sore ≤ 2 [3.25min (IQR = 3.5 min) vs. 2.2min (IQR = 2.2 min), p < 0.001 and 1265.05 μGym² (IQR = 1752.8 μGym²) vs. 972.15 μGym² (IQR = 927.2 μGym²), p < 0.001 respectively]. Finally, there was no significant difference of the fluoroscopy duration (p = 0.198) and radiation dose (p = 0.315) among the three performing endoscopists.

Conclusions Degree of ERCP difficulty and indication of biliary tract neoplasm were associated with higher radiation dose and longer fluoroscopy duration. These factors could be used to predict ERCP procedures related to prolonged radiation exposure and may lead to adoption of appropriate radiation reduction methods.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP485 Measurement of quality in ERCP using a standard hospital's reporting system: A retrospective study of a prospective database from a tertiary center

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Aims Endoscopic retrograde cholangiopancreatography (ERCP) is one of the most technically challenging and high-risk procedures performed by interventional endoscopists. Towards that goal, the European Society of Gastrointestinal Endsocopy (ESGE) has proposed five quality indicators to measure quality during ERCP. In this study, we aimed to evaluate the effectiveness of an endoscopy reporting system in recording the proposed quality metrics.

Methods We retrospectively interrogated a prospectively collected single-center database of adult patients undergoing ERCP between 09/2021 and 6/2023 in a tertiary greek public hospital. Data collected included patients' demographic characteristics, procedural and clinical outcomes were assessed through the hospital's reporting software that offers the possibility to register pre-procedural, intra-procedural, and post-procedural information during ERCP. We assessed the quality indicators as proposed by ESGE. Categorical data are represented as percentage with 95 % confidence interval (CI).

Results In total, 683 ERCPs were included (mean patient age 72.3 ± 13.6 years, 50.3 % men) in the analysis. Mean ERCP duration was 34.3 ± 15.5 min, performed by three endoscopists [n_1 = 241 (35.4 %), n_2 = 218 (32.1 %), n_3 = 221, (32.5 %)]. Among patients with naïve papilla and normal anatomy deep duct cannulation was achieved in 371/388 procedures [95.6 % (95 % CI: 93.6-97.7 %)]. In terms of removal of stones < 10mm, a complete removal after successful biliary cannulation was reported in 222/247 procedures [89.9 % (95 % CI:86.1-93.6 %)], while a biliary stent was appropriately placed during 238/248 procedures [96 % (95 % CI: 93.5-98.4 %)] for which it was indicated. Moreover, adequate prophylactic administration and occurrence of post ERCP pancreatitis was documented in 60/683 (8.8 %) and 7/683 (1 %) patients' reports, respectively. Worthy to note that for 559/683 (81.8 %) and 552/683 (80.8 %) procedures there was no information in the reporting software about prophylactic antibiotic administration and PEP occurrence, respectively.

Conclusions This study demonstrates that using a usual reporting system without mandatory fields allows for adequate measurement of procedural quality indicators (successful biliary cannulation, stones removal, adequate stent placement), but suffers in terms of pre-procedural (adequate antibiotic prophylaxis) and post-procedural (PEP rate) metrics. Further development of the existing reporting software or implication of dedicated applications (e.g. ESGE QIC app) could allow for an optimal quality measurement during ERCP.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP486 Early Esophageal Cancer and the Generalizability of Artificial Intelligence

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Aims Artificial Intelligence (AI) systems in gastrointestinal endoscopy are narrow because they are trained to solve only one specific task. Unlike Narrow-AI, general AI systems may be able to solve multiple and unrelated tasks. We aimed to understand whether an AI system trained to detect, characterize, and segment early Barrett's neoplasia (Barrett's AI) is only capable of detecting this pathology or can also detect and segment other diseases like early squamous cell cancer (SCC).

Methods 120 white light (WL) and narrow-band endoscopic images (NBI) from 60 patients (1 WL and 1 NBI image per patient) were extracted from the endoscopic database of the University Hospital Augsburg. Images were annotated by three expert endoscopists with extensive experience in the diagnosis and endoscopic resection of early esophageal neoplasias. An AI system based on DeepLabV3 + architecture dedicated to early Barrett's neoplasia was tested on these images. The AI system was neither trained with SCC images nor had it seen the test images prior to evaluation. The overlap between the three expert annotations („expert-agreement") was the ground truth for evaluating AI performance.

Results Barrett's AI detected early SCC with a mean intersection over reference (IoR) of 92 % when at least 1 pixel of the AI prediction overlapped with the expert-agreement. When the threshold was increased to 5 %, 10 %, and 20 % overlap with the expert-agreement, the IoR was 88 %, 85 % and 82 %, respectively. The mean Intersection Over Union (IoU) – a metric according to segmentation quality between the AI prediction and the expert-agreement – was 0.45. The mean expert IoU as a measure of agreement between the three experts was 0.60.

Conclusions In the context of this pilot study, the predictions of SCC by a Barrett's dedicated AI showed some overlap to the expert-agreement. Therefore, features learned from Barrett's cancer-related training might be helpful also for SCC prediction. Our results allow different possible explanations. On the one hand, some Barrett's cancer features generalize toward the related task of assessing early SCC. On the other hand, the Barrett's AI is less specific to Barrett's cancer than a general predictor of pathological tissue. However, we expect to enhance the detection quality significantly by extending the training to SCC-specific data. The insight of this study opens the way towards a transfer learning approach for more efficient training of AI to solve tasks in other domains.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP487 Predicting the need for step-up after EUS-guided drainage of peripancreatic fluid collections, including QNI score validation: a prospective cohort study

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Aims Despite EUS-guided drainage (EUS-FCD) is the preferred modality for management of peripancreatic fluid collections (PFCs), factors predicting the need for step-up to additional procedures (including radiology, surgery or additional endoscopies) are retrospectively explored in studies restricted to Lumen Apposing Metal Stents (LAMS) or excluding pseudocysts and post-surgical collections, which might require a step-up as well.

Methods All consecutive candidates to EUS-FCD with either LAMS or Double-pigtail Plastic Stents (DPPS) between 2020-2023 were included in a Prospective Registry of Therapeutic EUS (PROTECT). The role of baseline clinical and morphological factors, including the Quadrant / Necrosis / Infection (QNI) score, in predicting the need for any step-up to additional procedures was evaluated by stepwise logistic regression.

Results Twenty-three post-surgical PFCs, 19 pseudocysts and 18 walled-off necrosis [WOPN]) were included, 42 % treated with LAMS and 58 % with DPPS based on morphology. Clinical success was 92.9 %, but 38 % of patients required a step-up to necrosectomy (26.7 %) or additional procedures. Patients requiring step-up versus those sufficing drainage had a higher number of quadrants involved (OR = 3.6 [1.5-8.4]), a more frequent paracolic extension (OR = 6 [1.4-26]), a higher necrosis content (> 30 %, OR = 7.2 [1.8-28.4] ; > 60 % OR = 25.2 [4.2-153]) and were in the high-risk group according to the QNI score, with no difference in the diameter and rate of infection. At multivariate analysis, being in the high-risk QNI group was the only independent predictor of step-up (OR = 9.8 [2.9-32.9]). The score however was not able to stratify in analyses restricted to WOPN only or LAMS only. High-risk QNI patients presented also a longer hospital stay (17.5 [8-45] vs 4 [2-6.5], p = 0.001), without any difference in ICU stay and nutritional support.

Conclusions In this prospective series of consecutive non-selective PFCs undergoing EUS-FCD, QNI score was the only independent predictor of any need for step-up to additional procedures, and strongly correlated to the EUS-FCD allocation to LAMS versus DPPS, unravelling a potential additional utility.
NCT04813055

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP488 Endoscopic screening for anal high grade squamous intraepithelial dysplasia in HIV-positive men who have sex with men

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Aims Anal Squamous Intraepithelial Lesions (ASIL) are precursor lesions for anal cancer. Risk groups for anal cancer can be identified, with the highest risk found in HIV-positive men having sex with men (MSM). Currently, there is no regular screening to detect ASIL even in risk groups. The aim of this study was to evaluate the usefulness of flexible endoscopy to screen for ASIL in a group of high-risk individuals.

Methods A total of 303 HIV positive men from an outpatient clinic specialized in sexually transmitted infections and HIV at the Department of Infectious Diseases/Venhälsan, Södersjukhuset in Stockholm were included. At inclusion, anal HPV-PCR and anal cytology was collected with Cytobrush, and samples for anal chlamydia and gonorrhea were collected with Cobas swabs. Previous chlamydia and/or gonorrhea infections, tobacco habits, years with HIV, nadir CD4 count and date for first antiretroviral therapy, previous ASIL/condyloma and symptoms from the anal canal were registered. All included individuals underwent a diagnostic endoscopy without sedation or analgesia at Ersta Hospital, in Stockholm. A high-resolution flexible endoscope with magnification was equipped with a small transparent plastic cap and the anal canal was filled with water to provide good visualisation of the walls of the anal canal. The presence and number of lesions, morphology and proportion of the circumference was documented. Experience of pain during, and after, examination was measured with VAS scales. All included individuals provided an anonymous survey about their experience of the sampling and examination, including communication and attitude by the healthcare professional. Individuals with suspected dysplasia were scheduled for a therapeutic endoscopy. The same basic endoscopic technique was also used in the therapeutic session. Detected lesions were resected with a 10 mm diathermia-snare after a lifting of the lesion using injection of xylocaine/adrenaline, starting at the cylinder-epithelial side. Lesions under 10 mm were resected en bloc, otherwise piecemeal resection was performed.

Results Presently, we have performed anal endoscopy in 264 individuals. Macroscopic lesions were found in 201 cases (76 %). We have performed endoscopic resection in 157 of these and found one case (0,5 %) of squamous cell carcinoma (R0 resection, no oncologic treatment necessary), 55 patients (35 %) with High Grade squamous Intraepithelial Lesions (HSIL), 38 (24 %) with Low Grade squamous Intraepithelial Lesion (LSIL), 8 (5 %) indeterminate for LSIL or HSIL and 56 (36 %) without dysplasia (reactive squamous epithelium, inflammation and no dysplasia). Data on cytology and HPV-PCR are not available yet. Possible correlation with nadir CD4, duration of HIV infections, tobacco use, and number of lifetime previous rectal CT/NG infections remain to be analyzed.

Conclusions Flexible endoscopy is well tolerated and useful for detailed investigation of the anal canal and can be used for screening in individuals with a high risk of anal cancer. Among HIV-positive men who have sex with men, a high proportion have dysplastic lesions.

Conflicts of interest Peter Borch-Johnsen is paid lecturer for Olympus Sweden. Peter Thelin Schmidt has served as Advisory Board member for Gilead Nordic, Janssen Cilag and Norgine.

eP489 Evaluating the Effectiveness of Multidisciplinary Meetings in Managing Complex Colorectal Polyps: A Comparative Analysis Against National Standards

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Aims This study evaluates the effectiveness and impact of a complex colorectal polyp multidisciplinary meeting (MDT) by benchmarking performance against standards outlined by the British Society of Gastroenterology (BSG). Additionally, it aims to assess the practicality and challenges of implementing BSG's recommendations in a real-world clinical setting.

Methods A retrospective audit was conducted on cases discussed at a complex colorectal polyp MDT in a single English NHS trust from 1st January 2022 to 30th June 2022. Only large (>20mm) non-pedunculated colorectal polyps (LNPCPs) were included in the analysis. Data on patient demographics, polyp characteristics (including location and SMSA score), and median days to therapy post-index investigation were collated. Therapeutic modality for rectal and colonic polyps was noted. The study also examined conservative management strategies, patient characteristics, and Charleston co-morbidity scores. Outcomes were benchmarked against BSG guidelines, focusing on timeliness of therapy, incidence of complications, and presence of recurrent or residual polyp (RRP) at 12-months for and endoscopically managed LNPCPs.

Results Between January and June 2022, the MDT discussed 63 LNPCPs in 63 patients. Median age of patients was 72 years (IQR: 64-77), with males comprising 65 % (n = 41). Of the LNPCPs, 24 % (n = 15) were rectal and 76 % (n = 48) colonic, with 51 % (n = 32) located proximal to the splenic flexure. The median SMSA score was 11 (IQR 10-13), with 87.5 % classified as Level 3 or 4 in complexity on the SMSA scale.

21 % (n = 13) of cases were managed conservatively, showing a similar median age to those undergoing resection (74 vs 72 years) but a notably lower 10-year survival rate (21 % vs 53 %) as per the Charleston score. 6 cases (10 %) were directed to surgery: 4 rectal lesions for minimally invasive rectal surgery and 2 for right hemicolectomies, due to LNPCPs being non-resectable endoscopically. 7 cases were redirected to surgery post expert colonoscopist review, with 3 due to suspected cancer (all subsequently confirmed), 3 as on review endoscopic removal was not deemed possible, and 1 following a perforation during attempted endoscopic removal.

Treatment was performed within 8 weeks in 50 % of cases, with a median interval of 56 days (IQR 40-82). Perforation and post-procedural bleeding each occurred in one case (2 % each), aligning with BSG minimum standards (perforation < 2 %, aspirational < 0.5 %; bleeding < 5 %). At 12 months, 13 % (2/15) of patients who underwent surveillance following primary endoscopic therapy exhibited RRP, with both cases subsequently successfully managed through standard endoscopy techniques.

Conclusions The study highlights the efficacy of a complex polyp MDT in triaging patients for conservative management and surgery, ensuring appropriate list placement and point allocation. Benchmarking against BSG standards reveals potential for performance comparison across units, indicating a pathway to nationwide standard improvement.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP490 On therapy pH-impedance testing in asymptomatic Barrett's esophagus patients clarifies esophageal acid exposure potentially guiding anti-reflux therapy

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Aims In Barrett's esophagus, guidelines recommend at least once-daily proton pump inhibitor (PPI) administration [1, 2]. Pathologic esophageal acid exposure may persist despite symptom control, and pH-impedance data while on PPI treatment are scarce. We aimed to determine the role of pH-impedance testing in asymptomatic Barrett's patients to clarify acid exposure and guide PPI management.

Methods Patients with histologically proven Barrett's who undergone 24-hour esophageal pH-impedance testing ON PPI therapy were retrospectively identified (Jan 2014-Nov 2023). Patients were included if they had no clinical reflux symptoms at the study time. Patients with prior foregut surgery were excluded. Endoscopically, Prague classification was used and long-segment Barrett's was defined as M > 3. On pH testing, total acid exposure time (AET) < 4 % on therapy was defined as adequate acid control and AET > 6 % as pathologic acid exposure. Data are described as median and interquartile range (Q1-Q3) or as counts and percent, unless otherwise specified. Subgroup analyses were performed. Fisher exact test and Mann-Whitney U test were used for comparisons.

Results 27 patients were included (mean age 61 ± 11 years, 74 % males). Median BMI was 24.6 (22.4-28.9). Median Barrett's length was C0 (0-2) M2 (2-4), and 10 patients (37 %) had long-segment Barrett's. Ten (37 %) patients were on maximal PPI therapy (3 esomeprazole 40 mg BID, 6 pantoprazole 40 mg BID, 1 rabeprazole 20 mg BID), while 17 were on sub-maximal PPI (2 esomeprazole 20 mg BID, 6 esomeprazole 40 mg UID, 1 pantoprazole 20 BID, 6 pantoprazole 40 UID, 1 pantoprazole 20 UID, 1 rabeprazole 20 UID). On pH testing, nine (33 %) patients had pathologic acid exposure, with a median AET of 12 % (10 %-20 %). Among those, 8 (88 %) were on sub-maximal PPI and only one was on maximal PPI (pantoprazole 40 mg BID). Three (11 %) patients had borderline AET (4-6 %). Fifteen patients (56 %) had adequate acid control, with median AET of 0.6 % (0.2 %-1.1 %). Among those, 7 (46 %) were on sub-maximal PPI. Cumulative (C + M) Barrett's median extension (2 vs 2; p = 0.926) and rates of long-segment Barrett's (33 % vs 33 %; p = 1) were similar between patients with adequate acid control and those with pathological acid exposure.

Conclusions One out of three Barrett's patients have pathological acid exposure despite symptom control with PPI, mostly on sub-maximal dosing. Adequate acid control, nonetheless, is achieved in almost half of patients with sub-maximal PPI therapy, apparently regardless of Barrett's length. ON PPI pH testing may guide personalized anti-reflux therapy decisions.

Conflicts of interest S Danese has served as a speaker, consultant and advisory board member for Schering-Plough, AbbVie, Actelion, Alphawasserman, AstraZeneca, Cellerix, Cosmo Pharmaceuticals, Ferring, Genentech, Grunenthal, Johnson and Johnson, Millenium Takeda, MSD, Nikkiso Europe GmbH, Novo Nordisk, Nycomed, Pfizer, Pharmacosmos, UCB Pharma and Vifor.

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eP491 External validation of the REALISE score for assessing botulinum toxin injection efficacy in the treatment of chronic anal fissure

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Aims Botulinum toxin injection (BT) is a valid nonsurgical treatment for refractory chronic anal fissure (CAF). Recently, the scoRing systEm for AnaL fIsSurE (REALISE) was developed and internally validated to assess the severity of anal fissures. We aimed to externally validate REALISE for the assessment of the efficacy of BT for CAF treatment.

Methods Retrospective cohort-study which included adult patients treated with BT for CAF. Patients with inflammatory bowel disease were excluded. Patients' demographic, clinical and BT procedure related data were recorded. REALISE (4-30 points) consists of the sum of pain intensity item (0-10 points using a visual analogue scale), and other four items scored from 1 to 5 (impact on quality of life, duration of anal pain, and frequency of analgesic intake and anal bleeding). It was calculated before (pre-BT) and after three months (post-BT). Pre-BT, post-BT, pre-post-BT mean difference were compared with objective evidence of fissure healing (FH) by clinical examination at three months after BT.

Results Of 75 patients, 66.7 % were female with a mean age of 51 years. We observed a mean pre-BT REALISE of 14.0, mean pre-post-BT mean difference of 8.0 and mean post-BT REALISE of 6.0. FH was achieved in 51 (68.0 %) patients. One (1.19 %) patient reported transient fecal incontinence. Although mean pre-BT REALISE was similar (13.8 vs 13.6, P = 0.810), post-BT REALISE (10.4 vs 4.1, P < 0.001) and pre-post-BT mean difference (3.5 vs 9.5, P < 0.001) were significantly different between patients without and with FH, respectively. A post-BT REALISE cut-off of 5 had an excellent performance (area under the curve of the receiver operating characteristic of 0.951, 95 % confidence interval, 0.883-1.000) to predict absence of FH, with a sensitivity of 87.5 % and specificity of 99.8 %.

Conclusions BT injection is a valid and safe option for the treatment of CAF, with a 3-month FH rate of 68 %. We demonstrated that REALISE is a reliable clinical score for assessing the severity of anal fissures. Patients who achieved FH showed a higher decrease in REALISE after BT and a lower post-BT REALISE than patients who did not achieve FH. Moreover, by using a post-BT REALISE cutoff of 5, it was possible to accurately identify patients without FH at physical examination.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP492 Evaluation and predictive factors of long-term nutritional support in moderate to severe acute pancreatitis requiring intervention: a retrospective study

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Aims Moderate to severe acute pancreatitis (AP) may occur in up to 20 % of the cases and is associated with a significant rate of organ failure (OF), need for interventions, and death. In these patients, oral feeding will not be possible in the initial course of the disease. Therefore, nutritional support (NS) is one of the most essential cornerstones in managing moderate to severe AP. Numerous studies showed the superiority of enteral nutrition (EN) over parenteral nutrition (PN). Nevertheless, PN will be necessary in patients with EN intolerance or sometimes in combination with EN if nutritional targets are not met. NS's

type,route,and duration have not been widely investigated in moderate to severe patients requiring multiple interventions and long-term hospital stays (> 30 days). Consequently, predictive factors for home NS after patient discharge are currently also lacking. We aimed to evaluate long-term NS modalities and predictive factors for home NS in patients with moderate to severe AP requiring multiple interventions

Methods We performed a retrospective study of patients with moderate to severe AP with a hospital stay > 30 days requiring intervention for collections treated in our endoscopy unit between 1/2015 and 12/2022 and evaluated their NS. Baseline characteristics, laboratory results, interventions, and NS information were gathered by reviewing patient's records and our endoscopic database. [1–3]

Results 136 patients with moderate to severe AP were identified, and 48 patients met all the criteria. Baseline characteristics are the following: majority of men (77 %), mean age of 51 years (SD 15), and mean hospital stay of 91 days (SD 7). Moderate and severe AP were represented in 54 and 46 % of the cases respectively. 85,4 % of the patients required intensive care unit admission, 81,3 % presented OF and 67 % persistent OF. Mortality was observed in 23 %. 91 % of patients required endoscopic drainage, and 60,4 % underwent direct endoscopic necrosectomy with a mean number of 2 procedures (0-7), 27 % percutaneous drainage, whereas surgical drainage for 2 patients. Regarding nutrition, mean percentage of weight loss between admission and the first 30 days of hospitalization was 15,6 kg (SD 8,7). Before 30 days, 44 patients (92 %) required NS (50 % EN, 13 % PN, 29 % combined EN and PN). 98 % of patients required a prolonged NS (> 30 days), including 43EN and 31PN. Home NS was necessary for 11 patients: EN in 9 patients (5 gastrostomy with jejunal prolongation and 4 jejunostomy) and PN in 2 patients. The median duration of NS was 71 days (14-254). 77 % of patients had a final good clinical outcome. Due to a small number of patients (n = 11), no significant predictive factor of home NS was identified.

Conclusions In moderate to severe AP requiring interventions, NS was necessary for most patients, even in the initial course, then over a more prolonged period. Although EN was the first choice of NS used, the need for PN or the combination of EN and PN were not neglectable. NS was continued after patient discharge in 23 % of the patients with most EN.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP493 Endoscopic ultrasound-guided gastroenterostomy for the treatment of benign gastric outlet obstruction: the future journey

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Aims In the malignant gastric outlet obstruction (GOO), endoscopic ultrasound-guided gastroenterostomy (EUS-GE) is nowadays a well-established palliative technique in selected patients [1]. Given the successes in this patient population, EUS-GE could represent a promising strategy, with fewer adverse events compared to surgery, in selected patients with benign GOO [2].
In our patient cohort we have assessed safety, technical and clinical success, in terms of symptom resolution and weight recovery.

Methods Consecutive patients, who underwent EUS-GE for benign GOO at our center, were retrospectively analyzed from 01/2020 to 09/2023.

Results Eight patients (75 % males, mean age 62.75 ± 11.69 years) were selected; the most common symptoms were vomiting, abdominal pain, and weight loss. All patients had benign GOO with various etiologies (2 patients with acute necrotizing pancreatitis, 1 with Groove pancreatitis, 3 with chronic pancreatitis, 1 with post surgical stricture and 1 with peptic disease). Technical success was achieved in 100 % of the patients with a mean procedural time of 42 minutes ± 10. A single major adverse event occurred, which was a perforation after 48 hours leading to the patient's death. In the first 24 hours the diet was liquid, after 24 hours a semi-solid diet was administered in 87.5 % of cases, and at the last follow-up all patients had resumed a normal diet without complications. After a mean follow-up of 12 ± 6 months, 87.5 % of the patients showed no stent migration or food obstruction. All patients experienced improvements in symptoms and weight gain with an average of 5.29 ± 4.42 kg.

Conclusions Our case series suggests that EUS-GE in benign gastric outlet obstruction (GOO) is effective both technically and clinically, with the resolution of initial symptoms and weight gain. Furthermore, it is a safe procedure. Multicenter studies with larger samples are needed to confirm our data.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP494 Retrospective review of the role of capsule endoscopy in cases of obscure GI bleeding

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Aims ESGE guidelines recommend diagnostic small bowel capsule enteroscopy (SBCE) for most patients with suspected small bowel bleeding before proceeding to device-assisted enteroscopy (DAE). When one should proceed directly to DAE without prior capsule enteroscopy is not clearly defined. By review of patients with suspected small bowel bleeding who underwent SBCE at our centre, we sought to identify those with only proximal findings who could be better served by proceeding directly to anterograde DAE rather than first undergoing SBCE.

Methods Patients attending a single medical centre from 1st April 2010 to 31 January 2023 were identified using the keyword “melaena” and “overt bleeding” to search the SBCE database. Endoscopy, clinical, and demographic data was collected. Patients with anaemia alone, occult bleeding, incomplete or inadequate SBCE studies and patients with missing data were excluded. Patients were deemed suitable for anterograde DAE if endoscopy findings were confined to the proximal third of the small bowel. Variables analysed to identify suitable patients included gender, age, concomitant anticoagulant therapy, and referral source. P values < 0.05 were considered significant in all analyses. For categorical variables chi-squared test was used and the Mann Whitney U test was used for continuous independent data. For significant variables receiver-operating characteristic curve statistics were used to determine the optimum cut-off to identify proximal findings at SBCE.

Results Three hundred and forty-six patients were identified; 170 had melaena, 217 had overt bleeding. Two hundred and ninety-five (85 %) had adequate SBCE views and were included; 115(39 %) female, 180 (61 %), median age 70 [range 13.3 – 92.04]years. Complete medication records were available for 33 patients 9 of which were on anticoagulation. Thirty (10 %) underwent capsule endoscopy within 48 hours of referral as part of inpatient referrals. No pathol-

ogy was found in 178 (66 %), 55 (19 %) had proximal findings within the proximal 33 % of capsule progress through the small bowel. Gender (p = 0.064), concomitant anticoagulation (p = 0.081), or inpatient transfer (p = 0.403) did not associate with proximal small bowel findings. Older patients were more likely to have findings suitable for anterograde DAE (p = 0.03). On ROC analysis, patients aged 75 years and older were more likely to have findings confined to the proximal small bowel and thus suitable for anterograde DAE (AUC 69 % sensitivity 60 % specificity). Older patients were more likely to have angiodysplasia (p = 0.001).

Conclusions Older patients suspected of having small bowel bleeding are more likely to have proximal findings on SBCE. This is likely due to the higher proportion of older patients that have proximal angiodysplasia. These data suggest that patients aged 75 years and older could benefit from proceeding directly to anterograde DAE. Further prospective data are required to confirm these findings.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP495 Course in basic endoscopy improves examination technique and increases confidence in clinical practice

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Aims In Sweden, there is no standardized education for endoscopists. Usually, the training takes place locally at each department, where most resident lack the opportunity to train in a simulated environment before they perform a clinical gastroscopy. The aim of the study was to investigate whether the course "Basic Endoscopy" is perceived as meaningful and that participating resident physicians in surgery and gastroenterology improved technically in a simulated environment.

Methods A total of 19 study participants completed two exercises: a gastroscopy case and an exercise (Endo bubble 1) in the VR simulator GI-mentor II (Simbionix LTD), as well as an exercise (putting a snare around polyps in numerical order) in a Thompson Endoscopic Trainer (TEST) box (EndoSim). These exercises were carried out before the start of the course and at the end of the course. The data was analyzed with a paired t-test. The participants answered two questionnaires to map baseline characteristics and course experience. The course was conducted over four days with theory and practical training in a simulated environment under supervision.

Results After completing the course, a significant improvement was seen in the gastroscopy case where examination efficiency and proportion of examined mucosa increased (p = 0.011 and p = 0.016, respectively). No difference in terms of time. In the training box, a significant improvement (p < 0.001) was seen for all study participants in terms of time required to snare the nine polyps. The greatest improvement was found in the male participants. The course was perceived as meaningful, and the majority (89.5 %) experienced an increased confidence in starting to gastroscopy clinically.

Conclusions The study highlights the importance and value of offering endoscopy training in a simulated environment in a structured way with the supervision of experienced instructors. This is in line with previous studies in laparoscopic simulation. The outcome of the simulated gastroscopy case reflects skills developed in a virtual environment, including accuracy and efficient movement patterns in favor of fast and forced motor skills.

Conflicts of interest Authors do not have any conflict of interest to disclose.

ePosters 6

eP496V Resolution of dysphagia following endoscopic resection of nodular esophageal inlet patch with low grade dysplasia

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DOI 10.1055/s-0044-1783785

Abstract Text The inlet patch is a congenital anomaly with a prevalence of up to 1 % [1]. Most inlet patches are asymptomatic but occasionally may cause dysphagia or globus sensation [2]. They are usually ignored by most endoscopists, but the finding of low-grade dysplasia in our case highlights the importance of close examination and consideration for endoscopic intervention when there are abnormal features. Our case demonstrates the successful resolution of symptoms following removal of the inlet patch by multi-band mucosectomy.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/93e491e5-a0c9-4f76-8c10-ebc649f0e3d4/Uploads/13821_IP_final.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP497 Cystic Pancreatic Lesions Visualized on Endoscopic Ultrasound in the Gulf Council Countries: An International Multicenter Study

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Aims Cystic pancreatic lesions are a wide group of pathological entities that include neoplastic and non-neoplastic lesions. The Gulf Council Countries (GCC), exhibit unique demographic and lifestyle factors that may influence the prevalence and characteristics of pancreatic lesions, and regional data from is lacking. This international multicenter study aims to investigate the prevalence of cystic pancreatic lesions visualized through endoscopic ultrasound in the GCC.

Methods Retrospective international multicenter analysis of cystic pancreatic lesions assessed with endoscopic ultrasound (EUS). Preliminary data of consecutive lesions identified from Jan 2022-Dec 2022 were included. We assessed

the prevalence of cystic pancreatic lesions, their morphological characteristics, and associations with demographic and clinical variables.

Results A total of 128 patients (70 [54.7 %] female, mean age 56 years [SD: 16]) at 7 tertiary care centers (KSA: 2, UAE: 3, Kuwait: 2) were included. A total of 19.5 % (25/128) were smokers, while 42.2 % (54/128) were non-smokers. Smoking status was unknown in 25 % (32/128). Only 3.1 % (4/128) reported alcohol intake, 54.7 % (79/193) denied alcohol intake, and the remaining 42.2 % (54/128) had unknown alcohol intake status. Mean BMI was 27.5 (SD = 6.8). Most common symptoms were abdominal pain (52.3 %, 67/128) and weight loss (14.8 %, 19/128), while 41.4 % (53/128) reported no symptoms at time of EUS. Additionally, 23.4 % (30/128) had a history of acute pancreatitis. Although only 3.9 % (5/128) reported a history of chronic pancreatitis, 7 % (9/128) had features suggestive of chronic pancreatitis on cross-sectional imaging and 14.1 % (18/128) had features suggestive of chronic pancreatitis on EUS. On EUS, mean lesion size was 32.8mm x 27.8mm (SD 20.8). Lesions were most frequently located in the head of pancreas (38.2 %, 49/128), body (29.7 %, 38/128), tail (18 %, 23/128) and neck (14.1 %, 18/128). Most cysts contained fluid only (70.3 %, 90/128), 23.4 % (30/128) were septated, 7.8 % (10/128) contained a mural nodule and 26.6 % (34/128) communicated with the pancreatic duct. Pancreatic duct was normal in 81.2 % (104/128), with duct dilation being the most common abnormality (66.6 %, 16/24). The most frequent diagnosis was SB-IPMN (32.8 %, 42/128), followed by pseudocysts (14.8 %, 19/128), MCN (13.2 %, 17/128), SCA (10.9 %, 14/128), MB-IPMN (4.6 %, 6/128). Only 5/128 (3.9 %) were malignant cysts. The remaining 20/128 (15.6 %) had no final diagnosis. MCN was more common in females than males (12/17, 70/1 %; 5/17, 29.4 %, respectively). IPMN was also more common in females than males (29/49, 59.2 %; 20/49, 40.8 % respectively). Mean age for IPMN was 57 years (SD 15).

Conclusions The most common cystic lesions identified were mucinous pancreatic cysts, occurring predominantly in females, similar to current literature. Remaining data and further regional epidemiological studies are needed in order to enhance our understanding of cystic pancreatic lesions and in turn contribute to developing targeted screening and management strategies for affected individuals in the region. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP498 Solid Pancreatic Lesions Visualized on Endoscopic Ultrasound in the Gulf Council Countries: An International Multicenter Study

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Aims The assessment of pancreatic lesions has become a common indication for endoscopic ultrasound (EUS). The increased utilization of sampling techniques and the expertise of trained endoscopists have contributed significantly to the heightened identification of both solid and cystic pancreatic lesions. In the west, the prevalence of solid lesions detected via EUS is well-documented, with adenocarcinomas being the most common type. However, specific data for the Gulf Council Countries (GCC) of solid pancreatic lesions evaluated and/or biopsied by EUS is currently lacking. This study aims to determine the prevalence of solid pancreatic lesions detected by EUS in tertiary centers across the GCC and to assess the clinicopathological characteristics of these lesions in the region.

Methods Retrospective international multicenter analysis of solid pancreatic lesions assessed by EUS. Preliminary data of lesions identified from Jan 2022-Dec 2022 were included. Epidemiological and clinicopathological factors were analyzed.

Results A total of 193 patients (74 [38.3 %] female, mean age 60 years [SD: 13]) at 8 tertiary care centers (KSA: 3, UAE: 3, Kuwait: 2) were included. Of these patients, 28 % (54/193) were smokers, while 35.2 % (68/193) were non-smokers. Smoking status was unknown in 36.8 % (71/193). While 51.8 % (100/193) denied alcohol intake , 5.7 % (11/193) reported alcohol intake and the remaining 42.5 % (82/193) had unknown alcohol intake status. Mean BMI was 26.5 (SD = 6.2). Only 3.6 % (7/193) had positive family history of pancreatic cancer in a first-degree relative; 66.3 % (128/193) denied family history, and the remaining 30.1 % (58/193) had unknown family history. Regarding symptoms, most common symptoms were abdominal pain (67.4 %, 130/193), weight loss (50.8 %, 98/193) and jaundice (32.6 %, 63/193). Only 15.5 % (30/193) reported no symptoms at time of EUS. On EUS, mean lesion size was 40.5mm x 34.6 mm (SD 18.4). Lesions were most frequently located in the head of pancreas (59.6 %, 115/193), body (30 %, 58/193), tail (5.2 %, 10/193) and neck (5.2 %, 10/193). Most lesions had no cystic component (75.6 %, 146/193). Pancreatic duct was normal in 34.2 % (66/193), with duct dilation being the most commonly reported abnormality (24.3 %, 47/193). Most common diagnosis was adenocarcinoma (128/193, 66.3 %), followed by neuroendocrine tumor (21/193, 10.8 %), benign tissue (19/193, 9.8 %), other diagnoses (10/193, 5.2 %). The remaining 15/193 (7.7 %) diagnoses were unavailable. Mean age of patients diagnosed with adenocarcinoma was 63 years (SD 13).

Conclusions This is the first international multicenter data reporting epidemiologic data of solid pancreatic lesions evaluated by EUS in the GCC. Adenocarcinoma is the most frequent cause of solid pancreatic masses, with a median age of 63 years at diagnosis which is slightly lower than the worldwide reported age of 70 years. Further regional data and studies are needed to help develop targeted screening and management strategies for affected individuals. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP499 Variations in clinical parameters suggest patients with suspected small bowel bleeding deteriorate quickly over time and that close and regular monitoring and the early introduction of small bowel investigations is warranted

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Aims Around 10 % of subjects presenting with overt GI bleeding will have a small bowel source. While there are established algorithms for assessment and management of upper GI bleeding, including the use of validated clinical scores to triage and risk assess patients, the clinical assessment of those with suspected small bowel bleeding is less clear. As there is no means to identify small bowel bleeding as the source at presentation, most subjects will initially have a normal gastroscopy and possibly a colonoscopy prior to specific small bowel investigation and intervention. The impact on patients with small bowel bleeding of the current approach to overt bleeding assessment is unknown. We aimed to assess the clinical status of patients admitted with overt suspected small bowel bleeding over time.

Methods A retrospective analysis of all patients admitted to our institution from January 2019 to June 2022 with overt suspected small bowel bleeding, with an inital negative gastroscopy and colonoscopy / sigmoidoscopy was performed. Data collected from the electronic patient record included demographics, clinical parameters and laboratory results at presentation and 24 hours after admission. Patients with incomplete records were excluded. Variation in clinical parameters were compared over time. A p value of < 0.05 was considered significant.

Results In all 79 patients were identified, mean age 71 years (64-78), 28 % (n = 22) were female, 20 %(n = 16) were current smokers and 28 % (n = 22) were habitual drinkers, while 47 % (n = 37) and 42 % (n = 33) were either on antiplatelets and/or anticoagulants respectively. Mean (+ /- SD) baseline parameters were as follows Systolic BP mmHg = 124.3 [21.8], Heart Rate = 80 [72.0;93.0], Haemoglobin g/dL = 8.0 [6.60;9.85], Urea mmol/L = 8.5 [5.80;14.2]. While results at 24 hours were Systolic BP mmHg = 106 [96.5;118], Heart Rate = 88 [80.0;101], Haemoglobin g/dL = 7.8 [6.50;8.60], Urea mmol/L = 8.9 [6.10;14.4]. The changes in all clinical parameters at 24 hours were statistically significant, $p < 0.0001$. Median (95 % CI) changes were BP -20.5 [-24, -17.5], Heart rate + 9 [6.5, 12.5], Urea + 1.4 [0.9, 1.8] and Haemoglobin -1.3 [-1.7, -1]. Gender, age or anticoagulation use did not affect the differences in clinical status over time.

Conclusions In our cohort of patients with overt suspected small bowel bleeding, all clinical parameters regularly employed to assess and triage patients with GI bleeding were significantly worse 24 hours after admission. This could simply reflect a delay to diagnosis based on current management algorithms where suspected small bowel bleeding is defined by negative initial upper and lower GI investigations. As clinical deterioration occurs over time, these patients require close monitoring. Early introduction of small bowel capsule should be considered after a negative upper GI endoscopy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP500 Best approach after incomplete colonoscopy: colon capsule endoscopy or repeat conventional colonoscopy?

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Aims The most appropriate strategy for completing a previous incomplete colonoscopy (IC) is not standardized and generally reflects local expertise. We aimed to compare the efficacy and safety of two strategies for completing a previous IC: colon capsule endoscopy (CCE) versus repeat conventional colonoscopy.

Methods Retrospective cohort study that included consecutive adult patients referred to our center after IC under sedation due to irreducible loop formation or colonic fixed angulation. Patients underwent CCE (PillCam COLON2 Medtronic) or repetition of conventional colonoscopy under sedation. We retrieved demographic data, comorbidities, and information related to previous IC, CCE, and repeated conventional colonoscopy. An appropriate colon examination with the CCE was defined as capsule that could reach the most proximal segment achieved during the previous IC. Repeated conventional colonoscopy was considered complete when cecal intubation was accomplished. Adequate colon preparation quality was defined at CCE as a Colon Capsule Cleansing Assessment and Report (CC-CLEAR) or at colonoscopy as an overall Boston Bowel Preparation Scale score of ≥ 6 (≥ 2 per segment). We compared the rate of appropriate colon examination with the cecal intubation rate from repeated conventional colonoscopy. The rate of adverse events for CCE (retention) and colonoscopy (bleeding, perforation, cardiorespiratory complications) were also analyzed.

Results A total of 192 CCE and 181 colonoscopies were performed for IC, mainly due to colonic fixed angulation (69.2 %, n = 258). There were no significant differences between both groups (CCE vs. colonoscopy) regarding age (P = 0.077), sex (P = 1.000), overweight/obesity (P = 0.301), abdominal surgery (P = 0.532), reason for IC (P = 0.093) and adequate colon preparation (P = 0.132). Appropriate colon examination rate was not significantly different compared to cecal intubation rate of repeated colonoscopy (95.3 % vs 90.1 %, P = 0.073, respectively). Thirty-four patients (17.7 %) submitted to CCE were referred for a subsequent colonoscopy, the majority due to abnormal findings (76.5 %, n = 26), with a cecal intubation rate of 91.2 % (n = 31). Conversely, from the eighteen patients (9.9 %) in whom cecal intubation was not accomplished after repeated conventional colonoscopy, eight (44.4 %) patients were subsequently submitted to CCE, with an appropriate colon examination in 87.5 % (n = 7). There were no significant differences in colorectal findings identified between both strategies, including polyps (P = 0.408), angioectasia (P = 0.126), diverticula (P = 0.820), erosions/ulcers (P = 1.000), neoplasia (P = 1.000), and subepithelial lesions (P = 1.000). No adverse events were reported in either group.

Conclusions Our findings suggest that both colon capsule endoscopy or repeat conventional colonoscopy are effective and safe options for completing a previous incomplete colonoscopy. Consideration of factors such as patient preferences, comorbidities, costs, availability, and local expertise should guide the choice between both options.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP501V Submucosal Tunneling Endoscopic Resection with Preservation of Muscle Strands for the resection of a small GIST

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Abstract Text STER poses several notable technical challenges including retrieval of the lesion, a task, in this particular case, which was made risky by the potential inadvertent migration of the tumor into the peritoneal cavity. In the accompanying video, you will observe a STER procedure performed on a 15mm gastrointestinal stromal tumor (GIST). Despite the lesion's small size, the patient expressed a strong preference for endoscopic excision of the GIST rather than engaging in structured surveillance. During the procedure, two tissue strands (muscularis propria) were intentionally preserved and left connected, preventing migration of the lesion into the peritoneal cavity. Subsequently, a snare was utilized to extract the GIST while delicately rupturing the aforementioned tissue strands. The lesion was retrieved safely, analysed as a GIST with complete excision (R0) and the patient returned home the next day without adverse events.

Endoscopy 2024; 56: S1–S503

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/87e6f677-6c5d-46e6-a629-1bb4d2215b2b/Uploads/13821_gist_annoted%20-%201080WebShareName.mov

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP502 When the Past hits the Present: The BRCA2 case

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DOI 10.1055/s-0044-1783791

Abstract Text We report the case of a 32 years-old female with a hereditary history of breast and pancreatic cancer among the maternal line, who presented into our clinic for the endoscopic ultrasonographic (EUS) evaluation of a dilation in the main pancreatic duct. A hypoechoic, inhomogenous, 17mm nodule was found into the cefalic area of the pancreas. The nodule was punctured via FNA (fine needle aspiration). The FNA diagnosis was of a ductal adenorcarcinoma. An extensive pannel of genes for the evaluation of the mutations for inherited digestive cancer was performed afterwards. BRCA-2 was the only mutation present. Thereby, after neoadjuvant chemotherapy and cephalic duodenopancreatectomy, the inherited-pancreatic adenocarcinoma was cured, the present prevailing once again the past's hit.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP503 EUS-guided gallbladder drainage in high-surgical risk patients with acute cholecystitis and gallbladder perforation

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Aims EUS-guided gallbladder drainage (EUS-GBD) is now the recommended treatment for high-risk surgical patients with acute cholecystitis needing drainage. Perforation is a severe complication of acute cholecystitis and considered a contraindication for endoscopic treatment. We report here our experience of EUS-GBD in patients with perforated cholecystitis.

Methods This was a retrospective analysis of all cases of consecutive EUS-GBD for high-risk surgical patients with acute cholecystitis and gallbladder perforation treated between September 2020 and October 2023 in a single tertiary center with referral function. EUS-GBD was performed using electrocautery-enhanced lumen apposing metal stents (LAMS). Primary outcomes were technical and clinical success. Adverse events (AE) were classified according to the AGREE classification and considered secondary endpoint.

Results Eleven patients (55 % women) with a mean age of 75.4 ± 15.8 years were included. The mean Charlson Comorbidity Index was 7.3 ± 3.5. The reasons for EUS-GBD were age/comorbidities in 36 % (4/11), advanced malignant disease in 36 % (4/11) and severe coagulopathy or dual antiplatelet therapy in 27 % (3/11) of patients. LAMSs were placed transgastrically in 6 (55 %) and transduodenally in 5 (45 %) cases. In 3 patients, EUS-GBD was performed after failed percutaneous transhepatic cholecystostomy (PTC). Technical success was achieved in all patients (100 %). In 10/11 patients (91 %) we observed clinical success with significant improvement of localized and systemic infection. In one patient with advanced tumor disease, concomitant liver abscesses could not be drained percutaneously because of severe coagulopathy and the patient died due to uncontrolled sepsis and multiorgan failure. AE occurred in 1 patient with pneumoperitoneum, treated conservatively (grade II). The same patient had stent obstruction and recurrent cholecystitis needing endoscopic desobstruction 9 days after the initial procedure (grade IIIa). Median Follow-up was 201 days (range 4 – 820 days), three patients died due to malignant disease progression.

Conclusions EUS-GBD is technically feasible and effective in patients with acute cholecystitis and gallbladder perforation. The rate of AE in this subgroup of patients seems moderate, but has to be confirmed in larger series.

Conflicts of interest Financial support for fellowship in advanced endoscopy from Boston Scientific

eP504 Gastric Peroral Endoscopic Myotomy improves chronic alterations of stool frequency in patients with refractory gastroparesis

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Aims Gastroparesis is a chronic motility disorder of the stomach characterized by delayed emptying without outflow obstruction. Main symptoms are early satiety, nausea, vomiting, and bloating. In our daily practice, we observed some patients presenting with concomitant chronic alteration of stool frequency. The present study describes the impact of gastric peroral endoscopic myotomy (GPOEM) on chronic diarrhea or constipation.

Methods This retrospective study analyzed the clinical course of patients with refractory gastroparesis and concomitant chronic alteration of stool frequency who were consecutively treated by GPOEM between January 2019 and October 2023 in a tertiary referral center.

Results Of 107 patients with refractory gastroparesis treated by GPOEM, 11 (10.3 %) patients (mean age 60.4 ± 16.2 years, 64 % female) had altered bowel frequency for > 6 months before GPOEM without any other underlying disease. Ten patients suffered from chronic diarrhea and one patient had chronic constipation. Gastroparesis was considered of diabetic etiology in three patients, idiopathic in two patients and as a consequence of thoraco-abdominal surgery in six patients. Scintigraphy confirmed delayed gastric emptying in 10/11 (91 %) of cases. GPOEM was technically feasible in all patients without adverse events during or after endoscopic treatment. Mean follow-up was 230.3 ± 279.9 days. In 9/11 (81 %) patients, GPOEM achieved clinical success with a mean Gastroparesis Cardinal Symptom Index (GCSI) of 3.05 ± 0.48 before, and 1.27 ± 1.00 after the endoscopic treatment. Normalization of bowel movements after GPOEM was observed in 9/11 (81 %) of patients. Two patients had partial symptom improvement (loose bowels, but normal frequency), one of them without improvement of GCSI and persistent delayed emptying on scintigraphy.

Conclusions Gastroparesis may present with concomitant chronic diarrhea improving after endoscopic treatment by GPOEM. These observations need to be confirmed in larger studies.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP505 Should our approach to anticoagulation management in endoscopy change from a primarily procedure based risk stratification to a patient focused one ?

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Aims Anticoagulation therapy management in the context of endoscopic procedures presents a delicate balance between minimizing the thromboembolic risk while avoiding excessive inter procedural and post procedural bleeding and the need for repeat procedures. Our aim is to assess the impact of anticoagulation use and application of the ESGE guidelines [1] to our endoscopy cohort.

Methods A retrospective analysis was conducted on all patients referred to our endoscopy unit between January 2023 and June 2023 who were on anticoagulation and/or antiplatelets excluding Aspirin. Data regarding type of anticoagulation use , indication for anticoagulation, whether it was held or continued prior to procedure, the type of procedure performed, findings of the procedure, therapeutics preformed during the procedure, if a repeat procedure was necessary and documentation regarding post-procedural anticoagulation use was collected and analysed.

Results A total of 165 patients, 66 % (n = 109) men with a mean age of 72 years were identified from our database. In all 82 % (n = 135) on direct oral anticoagulation (DOAC) and 17 % (n = 28) on Warfarin. No patients were on P2Y12 inhibitors. Of these 96 % (n = 158) and 4 % (n = 7) were scheduled for low risk and high risk procedures respectively as per ESGE guidelines. While the majority 141 (86 %) were at a low thromboembolic risk. Anticoagulation was held in a total of 73 (44 %) patients, inappropriately in 66 (40 %) undergoing low risk procedures. Statistically more patients at low thromboembolic risk had their anticoagulation inappropriately held for low risk procedure, 45 % (n = 64) vs 13 %(n = 3), (p < 0.001). Evaluation of documentation practices showed that only 14.5 % (n = 24) of our cases had guidance on when restart anticoagulation documented after the procedure. In all 19 (12 %) patients in our cohort, all undergoing low risk procedures, required a repeat procedure for intervention as a result of continuing their anticoagulation. Of these 16 (84 %) were for polypectomies (5 for polyps < 6mm). Significantly more would have required a repeat procedure 43 %(n = 68) had anticoagulation been continued as per ESGE guideline (p < 0.001). The increase remains significant after excluding diminutive polyps (21 %, p < 0.01). There were no procedure associated complications or thromboembolic events reported in our cohort.

Conclusions In our practice 40 % of patients at low thromboembolic risk undergoing low risk procedures had their anticoagulation held without adverse event. This likely reflects our high demand for endoscopy services and our background high polyp detection rate. As a result of our non-compliance with current ESGE guidelines fewer patients than expected required a repeat procedure for intervention. Risk stratification based on thromboembolic risk rather than procedure type may be more advantageous in clinical practice and warrants further review.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP506 Stenosis of superior mesenteric artery – can endoscopic ultrasound become a diagnostic method of choice?

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Aims Mesenteric ischemia is a rare condition caused by a reduction in the intestinal blood flow and can be classified as acute or chronic depending on the time course of symptoms. The main etiological factor is atherosclerotic narrowing of the origins of the celiac or superior mesenteric arteries (SMAs), but clinical manifestations are rare. Due to the importance of timely diagnosis, guidelines recommend to perform the computed tomographic (CT) angiography as a gold standard in the patients with suggestive symptoms. The aim of this study was to present the diagnostic dilemmas in determining clinically significant stenosis of SMA that manifested with recurrent episodes of acute postprandial abdominal pain (also known as "intestinal angina") and significant weight loss.

Methods This prospective study recruited 11 patients with SMA stenosis admitted to the Division of Gastroenterology and Hepatology, University Hospital Center ''Sestre milosrdnice'', Zagreb, from January 2018 to December 2022. Initial abdominal ultrasound with Duplex scanning and Doppler flowmetry was used to make diganosis [peak systolic velocity greater than 3 m/s (PSV > 3 m/s) and end diastolic velocity greater than 45 cm/s (EDV > 45 cm/s)]. Furthermore, CT angiography was performed in all patients to confirm the diagnosis. Patients with SMA stenosis greater than 50 % were treated with an endovascular revascularization procedure [percutaneous transluminal mesenteric angioplasty with stenting (PTMAS)]. Patients were followed up for three months after the procedure.Endoscopic ultrasound with Doppler flowmetry (EUSDF) was initially used in a portion of patients with a suspected tumor of the pancreas. [1–3]

Results 90 % of patients were female, mean age 75 years (± 10.3 years). All patients had significant SMA stenosis (PSV > 3 m/s and EDV > 45 cm/s) seen on Doppler flowmetry. Additionally, in three patients the SMA stenosis was suspected on endoscopic ultrasound Doppler flowmetry (EUSDF). The diagnosis was confirmed using CT angiography. The cause of stenosis in all patients was generalized atherosclerotic disease while the main risk factors were smoking (50 % of patients) and diabetes mellitus type 2 (60 % of patients). 3 patients did not consent to endovascular procedure and were treated conservatively (acetylsalicylic acid). PTMAS was carried out in 6 patients and surgery revascularization was performed in one patient. One patient died from SMA thrombosis while awaiting PTMAS. All patients treated with PTMAS and surgical had resolution of abdominal pain and significant weight gain in the follow up period.

Conclusions Doppler flowmetry is a diagnostic method of choice in patients with suspected SMA stenosis with EUSDF being valuable auxiliary diagnostic tool. Due to small sample size, further investigation is needed to position the role of EUSDF in the diagnosis of SMA stenosis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP507 Endoscopic ultrasound guided fine-needle biopsy versus endoscopic ultrasound guided fine-needle aspiration in the diagnosis of pancreatic and extrapancreatic solid lesions

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Aims Endoscopic ultrasound guided fine-needle aspiration (EUS FNA) and endoscopic ultrasound guided fine-needle biopsy (EUS FNB) are the current standard for diagnosing pancreatic tumors, but recent studies have failed to show superiority of either tool. The aim of this study was to assess the sensitivity and diagnostic accuracy of EUS FNA and EUS FNB in diagnosis of pancreatic and extrapancreatic solid lesions in our cohort.

Methods A retrospective study was conducted among 89 adult patients with pancreatic and extrapancreatic solid lesion visualized on abdominal computed tomography or magnetic resonance in the period from January 2022 and December 2022. Patients with a cystic lesion and/or a contraindication for aspiration or a biopsy of the lesion were excluded. Patients were divided in EUS FNA and EUS FNB group. Data of interest were basic patients and disease characteristics as well as cytology and pathohistology results of acquired samples. Samples were obtained with FNA (Olympus EZ shot 3Plus) or FNB (Boston scientif-

ic Acquire), using 22- or 19-gauge needles in two passes and low negative pressure via either transgastric or transduodenal approach. Macroscopic on-site evaluation (MOSE) was performed whenever possible on FNB samples.

Results The majority of patients were male (57.3 %) aged between 65-80 years of age (40.4 %). Identified lesion were predominately localized in the head of the pancreas (46.1 %). FNB was performed in 62 (69.7 %) and FNA in 27 (30.3 %) patients. Pathohistology sample was adequate in 30.6 % patients, hence only cytopathology results were included. Tumor was not proven in 18 (20.2 %) of patients. Among identified tumors, 67 (94.4 %) were malignant, most commonly adenocarcinoma (57/67; 85 %) followed by neuroendocrine tumor (6/67; 9 %), gastrointestinal stromal tumor (2/67, 3 %) and lymphomas (2/67, 3 %). MOSE was performed in 23.6 % patients in FNB group. In our cohort, FNB outperformed FNA in sensitivity (96.55 %; 95 % CI 88.09 %-99.58 % vs. 89.47 %; 95 % CI 66.86 %-98.69 %) and in diagnostic accuracy (93.55 %; 95 % CI 84.29 %-98.21 % vs. 62.96 %; 95 % CI 42.36 %-80.59 %). Adverse event were rare. One episode of mild acute pancreatitis was noted in FNB group, while a prolonged hemorrhage which resolved spontaneously was noted in FNA group. [1–3]

Conclusions In our cohort of patients, FNB was more sensitive and accurate in the diagnosis of solid pancreatic and extrapancreatic tumors than FNA.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP508 Enteral metallic stenting in malignant gastric outlet obstruction: a prospective data analysis and long-term follow-up

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Aims The aim of the study was to confirm the long-term efficacy and safety of duodenal uncovered self-expandable metallic stent (SEMS) in malignant gastric outlet obstruction (GOO).

Methods This is a retrospective single-centre study with a prospective follow-up and data collection that was performed in a tertiary-care referral centre for biliopancreatic diseases in Sicily. We retrospective enrolled all the patients with GOO treated with SEMS from April 2018 till April 2023 with a minimum prospective follow-up of 6-months. We excluded from the data analysis the group of patients that did not follow our prospective scheduled interviews every 3-6 months by hospital consults or calls. Technical success (TS) was defined as correct placement of the fully opened SEMS across the stricture, confirmed fluoroscopically. Clinical success was identified as improvement of GOO Scoring System (GOOSS) at 1 month.

Results 106 patients (49 male, 57 female; median age 70,85 ± 12,4 years) were enrolled. 23 had advanced neoplasia with peritoneal carcinosis or metastasis at baseline. 66 patients required also an EUS-guided biliary drainage with Lumen Apposing Metal Stent (LAMS) in the same or delayed session. The malignant stenosis was classified according to Mutignani's classification [1]: type I (54 %\59 patients), type II (18.5 %\21 patients), type I-II (1.5 %\3 patients), type III (9 %\10 patients), gastric antrum (17 %\19 patients). SEMS's length was 9cmx22mm (50 cases), 6cmx22mm (49 cases), 12cmx22mm (7 cases). Technical success was 100 % and procedural time was 14 ± 7,08 minutes. For the prospective follow-up, 44 patients were lost at the follow-up and so excluded. Data analysis was executed in the remained 60 patients: 21 presented advanced malignant neoplasia with carcinomatosis and metastasis reporting SEMS's clinical failure and premature death within 30-days. The remained 39 cases reported a long period of indwelling stent without symptoms (mean 176,6 ± 176,02 [30-730] days). The GOOSS significantly increased before and after SEMS placement (0.05 vs. 2.56). A solid/soft solids diet was reported in 32 patients and liquid/soft solids in 7 cases during the prospective period. Mean follow-up was 239 ± 249,49 (30-1090) days. 12 patients developed obstructive symptoms due to SEMS ingrowth that was treated with stent-in-stent tecnique and two cases required a EUS-guided gastro-enteroanastomosis (EUS-GEA) with LAMS due to a partial open of SEMS's distal flange, with complete TS but requiring prolonged procedural time (104 and 107 minutes, respectively). 7 cases were suitable for surgical treatment and the remained group died for biliopancreatic malignancy.

Conclusions Enteral stenting improves quality of life with long-term outcomes, high CS and low adverse events especially in patients candidates to chemotherapy and\or surgery. The tecnique is feasible and safe with excellent rates of TS and fast procedural time, diversely to EUS-GEA. SEMS's indwelling without occlusion symptoms and the protracted improvement of GOOSS are the main results of our prospective series with a long follow-up. In patients with limited life expectancy, SEMS remains a solution but with low CS due to advanced neoplastic status.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP509 Time spent for handling gastroscopes and colonoscopes in the operating theatre: A prospective observational study

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DOI 10.1055/s-0044-1783798

Aims Nurse shortages may affect the operation of clinical functions. It is therefore valuable to identify areas with potential for optimization. The present study was initiated to analyze how long time nurses in operating departments spend on handling gastrointestinal endoscopes before and after endoscopies.

Methods The incremental time-of-use spent by nurses in a gastrointestinal surgical department of a university hospital using reusable endoscopes with decentralized reprocessing was studied. Data were collected prospectively over 12 consecutive days in gastroscopy and colonoscopy cases done in an operating theatre. Nurse time expenditure for endoscope handling, procedure preparation, reprocessing and maintenance was systematically recorded. Time spent on additional activities such as sending washing tubes for sterilization, filling reprocessing equipment, handling automated ndoscope reprocessor fault reports, and ordering reprocessing equipment was also included. The Mann-Whitney U test compared reprocessing time variations between gastroscopes and colonoscopes.

Results Data from 15 endoscopic procedures (9 colonoscopies and 6 gastroscopies) in the operating theater were collected. There was no statistically significant difference in time spent between colonoscopy and gastroscopy. The median staff dependent time for a reprocessing cycle was 37 minutes, (IQR 36-39, R: 35-50 min.) The time used for the handling steps were: Prepare precleaning 10 %, Transport 6 %, Pre-cleaning 8 %, Manual cleaning 44 %, Documentation 1 %, Storage handling 14 %, and Other 16 %.

Conclusions A median staff-dependent reprocessing time of 37 minutes, ranging up to 50 minutes, indicates that there is an obvious potential for workflow

optimization. One way of achieving this might be using single-use endoscopes in this specific context, since they can be stored in the surgical department close to the theatre. Handling time including fetching the endoscope, opening the sterile package, connecting the endoscope, and afterwards disposing it for recycling will probably be less than 10 minutes. This can be evaluated in a comparative study.

Conflicts of interest KN, RVR: Employed by Ambu A/SSA: Medical advisor for Ambu A/S

eP510 Effect of augmented radiofrequency ablation in ex vivo pancreatic tissue using endoscopic ultrasound needle with sugar solution as a booster. Towards an improved pancreatic cancer surgery

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Aims Perivascular endoscopic ultrasound augmented radiofrequency ablation with sugar (EUS-sugar-RFA) facilitated distal pancreatectomy and increases pancreatic tissues necrosis in a swine model. Analyze the sugar-RFA modulation applied with a EUS needle in the pancreatic perivascular tissue in an ex vivo swine pancreas.

Methods 6 swine pancreases including duodenal and splenic lobes with splenic vessels were harvested by 2 HPB surgeons and preserved in Wisconsin solution at 4 °C for a maximum of 12h at IHU Strasbourg. 18 ablations were performed in 6 ex vivo perfused swine pancreatic models. Before RFA, ultrasound mini probe guided parallel placement of 2 thermometric probes followed by 1 cc injection of glucose 50 %. Immediately, the 19G needle EUSRA with Viva Combo Generator System (Taewoong Medical South Korea) was used for local ablation within the ultrasound sugar solution image. 3 sites: Splenic lobe (tail and body) and duodenal lobe (head) were used. 12 ablations (4 pancreases) were performed by applying an energy of 300 Joules with different combinations of power (30-100 Watts) and time (3-10sec). 6 ablations (2 pancreases) were performed using the same methodology but in 3 saline 0,9 % solution replaced the glucose and in 3 it was performed alone (no solution). Anatomical images were acquired with 1.5T MRI (Siemens, T1 VIBE sequence with spatial resolution 0.67x0.67x1.2 mm) to detect RFA-lesions in full pancreases. Each ablation site was cut in 2 parts and 36 sites of ablation were analyzed: 18 ablation sites had four 7T MRI's (Bruker, MPRAGE sequence with spatial resolution 100x100x500 µm) and 14 Full-Field Optical Coherence Tomography (dOCT-LLTech-France) with one micron 3D resolution were performed. The other half, 18 ablation sites had anatomopathological analysis with H&E and trichrome stains.

Results The largest ablation site was achieved with sugar-RFA at 40W/7.5 seconds resulting in an ultrasound mean treated area of 1.797 cm^2. The optimal outcome in term of largest ablated area combined with reduced adiponecrosis in the surrounding tissue was obtained with sugar-RFA at 30W/10 seconds (mean treated ultrasound area of 1.40cm^2) when compared with other sugar-RFA settings, saline-RFA and RFA alone. Due to temperature measurement variablity related to technical limitations, further investigations are needed to analyze our results. The dOCT showed sugar crystals of different sizes and shape that could explain the augmented effect of RFA with glucose. Qualitative visual analysis of 1.5T MRI seems to show higher lesion volume with sugar-RFA compared with saline-RFA and RFA alone. The quantitative measurement of lesion volume on 1.5T and 7T MRI is ongoing. [1–3]

Conclusions Pancreatic needle EUS ablation with sugar-RFA showed a larger ablation area with less adiponecrosis in the surrounding area compared with saline-RFA and RFA alone. This might be applied to pancreatic cancer surgery in the future.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP511V Endoscopic closure of malignant coloduodenal fistula using Through The Scope Partially Covered Self Expanding Metal Stent with Stentfix

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DOI 10.1055/s-0044-1783800

Abstract Text Introduction: Most malignant coloduodenal fistula poor surgical canddidtaes.Methods: CECT abdomen fistulous tract from the hepatic flexure to D1. OGD tumor infiltrating posterior wall of D1, colonoscopy Ulceroproliferative lesion causing luminal narrowing at hepatic flexure. While placing covered stents should take care to place the distal end just proximal to the papillary orifice to prevent pancreatitis or obstrctive jaundice. Radiopaque marking done using a clip just proximal to the papila to guide distal position of the stent. High risk of migartion – stent fix used to rerinforce position Result:Vomting subsided.Conclusion: 2 reported cases where coloduodenal fistula managed with covered stents and fixed with endosutre. This is the first case where stent is fixed with stentfix – to use when therapeutic scope is not available.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/63790725-75f4-4098-8b97-ee72881fcf70/Uploads/13821_trim-9E013584-752F-44D2-8A85-9F4AD44D0B9B.MOV

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP512 Profilactic self-assembling peptide (PuraStat) is very effective in preventing delayed bleeding in patients undergoing endoscopic submucosal dissection: a prospective single center experience

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DOI 10.1055/s-0044-1783801

Aims Delayed bleeding is a well known complication in 2-3 % of resective endoscopic procedures. The aim of this study was to assess the efficacy and safety of Purastat when used to prevent delayed bleeding in endoscopic submucosal dissection (ESD).

Methods Profilactic Purastat was used after esophageal, gastric or rectal ESD for lesions of 15 – 70 mm in patients over 18 years of age scheduled for an elective procedure.

Results 20 gastric, 15 rectal, 1 colonic and 1 esophageal ESD were performed in 37 patients (19 F) between march 2022 and september 2023. 32 % of patients were on antiaggregant therapy, while 13 % discontinued anticoagulation treatment before procedure. The mean lesion size was 25.8 mm (15-70 mm). Intraprocedural bleeding and perforation occured in 38 % and 2.7 % of patients, respectively, and managed endoscopically. The delayed bleeding rate was 0 %.

Conclusions In this small, prospective single center series no patient undergoing ESD experienced delayed bleeding after the profilactic use of a self-assembling peptide. Acknowledging that the use of Purastat adds cost to the procedure, it could represent an advantage in the overall cost-effectiveness. Larger sample size and randomized controlled studies are needed to confirm these preliminary data. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP513V Effective bridging of a misdeployed LAMS during transgastric EUS-guided gallbladder drainage (EUS-GBD) by traction into a second transmural LAMS

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DOI 10.1055/s-0044-1783802

Abstract Text Introduction: EUS-GBD for internalization of prior percutaneous cholecystostomy may be technically challenging. **Case:** Acute cholecystitis in patient is drained percutaneously. Elective EUS-GBD is offered. The collapsed gallbladder is imaged from the antrum. Saline injected through the percutaneous drain facilitates distention. After 19G-needle puncture a guidewire coils into the GB. A hot 10x10-mm LAMS is avanced and deployed. Friction during catheter retraction results in uncontrolled release of the proximal flange, deployed in the peritoneum. LAMS repositioning into the stomach by traction from the proximal flange fails. A second 15x10 LAMS is deployed inside the first LAMS after dilating, is easily repositioned and the gap bridged. **Comment:** LAMS-into-LAMS repositioning served as salvage of misdeployement.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/daeef711-62aa-4837-be33-8c1606dde4f2/Uploads/13821_ESGE_24_Vesi%CC%81cula_NOTES.mov

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP514V A double-channel gastroscope (DCG) facilitates transgastric peritoneoscopy as salvage of Type I stent misdeployment (SMD-I) during EUS-guided gastroenterostomy (EUS-GE)

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DOI 10.1055/s-0044-1783803

Abstract Text Introduction: Overall SMD rate during EUS-GE is 10 %. **Case:** Advanced stage-IV colo-rectal cancer resulting in gastric-outlet obstruction. SMD-I occurs during attempted EUS-GE. The misdeployed LAMS is used as internal trocar for passage of DCG from stomach into peritoneum. By injecting contrast + methylene-blue through previous oro-jejunal catheter, the target jejunum is identified by fluoroscopy at peritoneoscopy. A grasping forceps through DCG holds jejunum in place while needle-knife incision grants guidewire access for insertion of a bridging LAMS. Distal flange dislodgment of 2nd LAMS during gastric retraction is fixed by re-sheathing, re-deployment, and placement of a 3rd longer bridging stent. **Comment:** DCG stabilizes jejunum facilitating incision access at peritoneoscopy to fix SMD-I.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/e2ec8aee-4341-4481-8cef-0a4f53da6453/Uploads/13821_ESGE_24_Rescate_GYUSE.mov

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP515 Procedural phase recognition in endoscopic submucosal dissection (ESD) using artificial intelligence (AI)

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DOI 10.1055/s-0044-1783804

Aims Recent evidence suggests the possibility of intraprocedural phase recognition in surgical operations as well as endoscopic interventions such as peroral endoscopic myotomy and endoscopic submucosal dissection (ESD) by AI-algorithms. The intricate measurement of intraprocedural phase distribution may deepen the understanding of the procedure. Furthermore, real-time quality assessment as well as automation of reporting may become possible. Therefore, we aimed to develop an AI-algorithm for intraprocedural phase recognition during ESD.

Methods A training dataset of 364385 single images from 9 full-length ESD videos was compiled. Each frame was classified into one procedural phase. Phases included scope manipulation, marking, injection, application of electrical current and bleeding. Allocation of each frame was only possible to one category. This training dataset was used to train a Video Swin transformer to recognize the phases. Temporal information was included via logarithmic frame sampling. Validation was performed using two separate ESD videos with 29801 single frames.

Results The validation yielded sensitivities of 97.81 %, 97.83 %, 95.53 %, 85.01 % and 87.55 % for scope manipulation, marking, injection, electric application and bleeding, respectively. Specificities of 77.78 %, 90.91 %, 95.91 %, 93.65 % and 84.76 % were measured for the same parameters.

Conclusions The developed algorithm was able to classify full-length ESD videos on a frame-by-frame basis into the predefined classes with high sensitivities and specificities. Future research will aim at the development of quality metrics based on single-operator phase distribution.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP516 Effect of augmented radiofrequency ablation in ex vivo pancreatic tissue using a percutaneous needle with sugar solution as a booster. Towards an improved pancreatic cancer surgery

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DOI 10.1055/s-0044-1783805

Aims Perivascular endoscopic ultrasound augmented radiofrequency ablation with sugar (EUS-sugar-RFA) facilitated distal pancreatectomy and increases pancreatic tissues necrosis in a swine model. Analyze the sugar-RFA modulation applied with a percutaneous needle in the pancreatic perivascular tissue in an ex vivo swine pancreas.

Methods 6 swine pancreases including duodenal and splenic lobes with splenic vessels were harvested by 2 HPB surgeons and preserved in Wisconsin solution at 4 °C for a maximum of 12h at IHU Strasbourg. 18 ablations were performed in 6 ex vivo perfused swine pancreatic models. Before RFA, ultrasound mini probe guided parallel placement of 2 thermometric probes followed by 1 cc injection of glucose 50 %. Immediately, the percutaneous prototype 18G needle with MedRF4000 generator system (F Care Systems Belgium) was used for local ablation within the ultrasound sugar solution image. 3 sites: Splenic lobe (tail and body) and duodenal lobe (head) were used. 12 ablations (4 pancreases) were performed using different parameters of Watts (7.14-25) and time (3-38sec) with 50 and 300 joules. 6 ablations (2 pancreases) were performed using the same methodology but in 3 saline 0,9 % solution replaced the glucose and in 3 it was performed alone (no solution). Anatomical images were acquired with 1.5T MRI (Siemens, T1 VIBE sequence with spatial resolution 0.67x0.67x1.2 mm) to detect RFA-lesions in full pancreases. 18 sites of ablation were analyzed: four 7T MRI's (Bruker, MPRAGE sequence with spatial resolution 100x100x500 µm) and 3 Full-Field Optical Coherence Tomography (dOCT- LL-Tech- France) with one micron 3D resolution were performed. 11 ablation sites had anatomopathological analysis with H&E/trichrome stains. [1–3]

Results The largest pancreatic ablation site measured by ultrasound in the 50J-experiments was achieved with 12.5Wx4sec (0.784cm^2). Under 300J, it was achieved with 10Wx30sec (1.063cm^2) and then > 26 %. This latter sugar/RFA setting was more interesting when compared with saline-RFA (0,48cm^2) and RFA alone (0,61cm^2) which were < 55 % and < 43 %, respectively. Interestingly, a sixfold reduction of energy (50J vs 300J) in sugar-RFA caused a 1.35 fold reduction of ablated area with preserved good quality of pancreatic ablation and comparable adiponecrosis of the surrounding tissue. Low-energy (50J) sugar RFA showed interesting and not expected results that need to be further investigated. The dOCT showed sugar crystals of different sizes and shape that could explain the augmented effect of RFA with glucose. Qualitative visual analysis of 1.5T MRI seems to show higher pancreatic lesion volume with sugar-RFA compared with saline-RFA and RFA alone. The quantitative measurement of lesion volume on 1.5T and 7T MRI is ongoing.

Conclusions Pancreatic percutaneous needle ablation with sugar-RFA showed a larger ablation area with adiponecrosis compared with saline-RFA and RFA alone. This might be applied to pancreatic cancer surgery in the future.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP517 Novel Endoscopic Hand-Suturing: First experience in a German Tertiary Center

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DOI 10.1055/s-0044-1783806

Aims Endoscopic hand suturing (EHS) was developed in Japan to close the resection site after endoscopic submucosal dissection (ESD). EHS utilizes a continuous suturing technique with a barbed suture and a flexible through-the-scope needle holder. Its feasibility has been demonstrated in various indications. We report the feasibility and technical success of the EHS in a German tertiary care center.

Methods All patients undergoing treatment with the EHS device were included. Indications, technical success, complications, and intervention time were evaluated. Technical success was defined as complete closure of the defect; intervention time was defined as time from insertion to extraction of the barbed suture.

Results Eight patients were treated with the EHS between June and November 2023. Treatment indications included ESD closure in the rectum (n = 3), sigmoid colon (n = 1), and duodenum (n = 1), mucosotomy closure after gastral peroral endoscopic myotomy (n = 2), and closure of an esophago-bronchial fistula (n = 1). The median size of the lesions removed with ESD was 30 mm (SD = 22,3 mm). EHS closure was technically and clinically successful in 7/8 (88 %) patients. The mean treatment time was 45 minutes (SD = 18 min). There were no complications associated with EHS.

Conclusions The EHS technique seems to be safe and feasible in a European center. It can be implemented for various indications; however, the intervention time is lengthy but may shorten with the learning curve.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP518 Managing failed cannulation during ERCP – more than one way to skin a cat!

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Aims Deep cannulation of the target duct is the cornerstone of ERCP procedures, however deep cannulation of the duct of interest can fail in up to 5-10 % of the cases, even in expert hands. We aimed to analyze the rate and reason for failed cannulation during ERCP procedures in native papilla cases and to evaluate the type of reintervention performed as well as procedure-related complications in these cases.

Methods We conducted a retrospective analysis of a prospectively maintained endoscopy database in a tertiary referral unit for therapeutic endoscopy. All consecutive ERCP procedures conducted between July and October 2023 in the Gastroenterology Department of Colentina Clinical Hospital were analyzed. Clinical and procedure-related data were collected from the endoscopy database and patient charts and analyzed using dedicated software (SPSS).

Results A total of 234 procedures were included in the final analysis. 130 patients were male (55,6 %) and mean age was 67,5 ± 13 years. The most frequent indications for ERCP were choledocolithiasis in 98 cases (41.8 %) and malignant strictures of the bile duct (cholangiocarcinoma – 52 cases (22,2 %) and pancreatic cancer 32 (13.6 %)). Failure to access the duct of interest was noted in 24 cases (10.2 %). Cannulation attempts failed in 11 cases (4.7 %) and the papilla was inaccessible due to malignant or benign strictures of the duodenum in 8 cases (3.4 %). An additional 4 procedures were prematurely stopped due to anesthesia-related complications (1.7 %) and there was also 1 case of duodenal perforation. A second intervention was performed in 22 out of 24 cases; re-do ERCP was performed in 15 cases, a percutaneous rendez-vous in 3 cases. EUS-guided biliary drainage was performed in 2 cases and there was 1 case of EUS-facilitated ERCP via EUS guided gastro-duodenostomy to bypass a malig-

nant stricture of the duodenum. Finally, there was 1 case referred for surgical treatment. 18 / 22 reintervention procedures were technically successful (81.8 %) but a third procedure was required in the case of 4 failed re-do ERCPs, with an additional 2 ERCPs and 2 external drainage procedures performed as salvage reinterventions.

Conclusions Failure to access the desired duct during ERCP remains an important issue for endoscopists and a significant proportion of patients will require additional therapeutic interventions beyond their index ERCP to complete the treatment plan, including ERCP, EUS and interventional radiology procedures. Further studies are needed to clarify the best way to manage an initial failed cannulation during index ERCP.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP519 Combined transvaginal and colonic rendez-vous approach for over-the-scope clip system placement in colo-vaginal fistulae

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Abstract Text Surgical treatment of colo-vaginal fistulae is often contraindicated due to significant morbidity and mortality. We report two cases of elderly women, referred to our centre after the onset of faecaluria and pneumaturia. Both patients had diverticular disease which prevented endoscopic identification of the colonic orifice of the fistula, so an ultrathin gastroscope was inserted into the vagina to identify the vaginal orifice. Using a rendez-vous technique, a hydrophilic guidewire was inserted from the vaginal side of the fistula, retrieved from the colonic side and used to guide a therapeutic gastroscope equipped with an over-the-scope clip, allowing precise deployment of the over-the-scope clip and consequent complete closure of the fistula. Our experience confirms that over-the-scope clip-assisted closure of colo-vaginal fistulae is an effective and feasible treatment option.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP520V Endoscopic internal drainage for hematic peri-gastric collection after sleeve gastrectomy

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Abstract Text A 54-year-old male presented on the sixt days post operatively after sleeve gatsrectomy, with abdominal pain, fever, impaired consciousness. A CT scan showed a fluid peri-gastric collection. The esophagogastroduodenoscopy showed, at the level of the distal part of the suture line, an orifice of about 20 mm which connects the gastric lumen with an abdominal perigastric collection occupied by voluminous bloo dclots and which seems to have no well-defined walls. Two double pigtail stents (Boston Scientific, Marlborough, MA, USA) were placed on a guide wire with ends located respectively at the level of the gastric lumen and at the collection lumen as internal drainage. A feeding naso-jejeunal tube was placed. A rapid resolution of the symptoms was observed. Even in the case of perigastricblood collections, internal drainage with double pig tails can be used.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/782cc7af-215b-4d8c-8bfd-9f960bff5c3c/Uploads/13821_PERALTA.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP521V Endoscopic Tunneled Biopsy: A Novel Approach for Definitive Diagnosis of Esophagogastric Junction Adenocarcinoma Mimicking Achalasia

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DOI 10.1055/s-0044-1783810

Abstract Text Pseudoachalasia is a rare entity that mimics primary achalasia, often leading to significant underdiagnosis. When malignancy is suspected, achieving a definitive diagnosis becomes crucial.

A 44-year-old male presented with 8-months of dysphagia and weight loss. Initial upper endoscopy and abdominal CT scan yielded normal results. High-resolution esophageal manometry revealed an IRP of 40.3 mmHg, aperistalsis and pan-pressurization, leading to the diagnosis of type II achalasia. The patient was scheduled for POEM. During the procedure, an impenetrable stenosis at the EG junction was observed. Conventional biopsy showed no tumor and PET-CT exhibited no abnormal uptake. Subsequent EUS-FNA revealed focal high-grade dysplasia. After case presentation in a multidisciplinary committee, an endoscopic tunneled biopsy was performed, confirming a well-differentiated (G1) intestinal/tubular adenocarcinoma.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/070344ad-f3f6-4156-acc9-a91946f53c1c/Uploads/13821_Endoscopic_Tunneled%20Biopsy%20A%20Novel%20Approach%20for%20Definitive%20Diag....mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP522 Endoscopic management of pancreatobiliary pathologies in the elderly with digital single-operator cholangiopancreatoscopy: a case-control study

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DOI 10.1055/s-0044-1783811

Aims Digital single-operator cholangiopancreatoscopy (D-SOC) is nowadays widely used for diagnosis and treatment of many biliopancreatic diseases, above all difficult lithiasis and indeterminate strictures; given the high prevalence of these affections in elderly, we aimed to compare safety and efficacy of this technique between younger and older patients.

Methods We prospectively collected cases of D-SOC performed in our referral center from January 2016 to November 2023; then we retrospectively compared procedure outcomes between elderly (patients ≥ 75 years, group A) and younger patients (group B, < 75 years). Primary endpoints were adverse events (AEs) rate and technical success, defined as the successful insertion of the D-SOC probe, the visualization of the target and the initiation of the intended diagnostic and/or therapeutic procedure. Data are reported as mean ± standard deviation for continuous variables, and as number and % for categorical variables, and were compared with T-Student test or Fisher's exact test according to their distribution.

Results One hundred and forty-two D-SOC were performed in 112 patients, 42 in group A and 100 in group B. Mean follow up was 12.0 ± 14.0 months. Prevalence of comorbidities (66.7 % vs 59.0 %, p = 0.435) and mean number of previous ERCP (1.67 ± 1.35 vs 1.90 ± 1.78, p = 0.454) were similar among two groups. Indeterminate stricture was the most common indication in group B (49 % vs 26.2 % in group A), while difficult lithiasis was the prevalent indication in group A (47.6 % vs 33 % in group B). Technical success was comparable among

groups and was achieved in 41/42 procedures in group A (97.6 %) and in 99/100 procedures in group B (99.0 %, p 0.5). Adverse events occurred in 3/42 procedures in group A (7.1 %) and in 16/100 procedures in group B (16 %), without significant difference (p = 0.276). The three AEs in group A were one cholangitis, one PEP and one duodenal perforation caused by the migration of the stent placed after D-SOC. Cholangitis was the most frequent adverse event in group B (8 % of procedures) followed by post-ERCP pancreatitis (PEP, 5 % of procedures). All adverse events but one (the duodenal perforation) were managed with medical treatment.

Conclusions Success rate and safety profile of D-SOC were comparable between younger and elder patients. The most common adverse event was cholangitis, followed by PEP, and no deaths related to procedures were registered in our cohort.

Conflicts of interest Dr. De Angelis is scientific consultant for Boston Scientific

eP523 Superficial dissecting esophagitis associated with bullous pemphigoid. Report of a case

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DOI 10.1055/s-0044-1783812

Abstract Text 75-year-old male referred from regional Hospital due to cervical esophageal perforation after nasogastric tube placement. As a background, he presents bullous pemphigoid secondary to gliptin. The perforation is managed conservatively and gastroscopy is requested after several weeks of clinical improvement. In gastroscopy, we can observe esophageal mucosa with denuded appearance with wide areas of fibrosis tracts of scar appearance that were easily detached with rubbing causing bleeding in drooling that was self-limited compatible with superficial dissecting esophagitis. Superficial dissecting esophagitis is an infrequent entity that consists of extensive denudements of the esophageal mucosa. Its etiology is varied, from idiopathic, related to drugs (NSAIDs, bisphosphonates), very hot drinks, chemical irritants, celiac disease, collagenosis, and autoimmune blistering dermatoses."[1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP524V Salvage circumferential anal-rectal ESD for recurrent adenoma

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Abstract Text A 72-year-old lady was admitted for the management of residual adenoma in the rectum and anus, involving the entire circumference. Due to the presence of scar tissue we planned an agressive circumferential resection under general anesthesia. Two tunnels were created with clip and band countertraction. In areas with extensive fibrosis, intramuscular dissection was applied. Focally, full thickness resection was performed without closure of the wall defect. After 2.5 hour of copious dissection the resection was completed. The patient recieved antibiotics for 1 week and local enemas of budesonide were prescribed. Preventive dilations at 18 mm were performed at 2 and 4 weeks. Self dilations with at 15 mm were recommended in the long term. At 6 months of follow up the patient is doing fine, with mild asymptomatic anal stenosis, without local recurrence of adenomatous tissue.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/ad41e3fa-d7b2-4e82-bc57-197c4c845d89/Uploads/13821_ESGE_Days.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP525 Endometriosis. Report of a case

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DOI 10.1055/s-0044-1783814

Abstract Text A 39-year-old woman who is studied for intermittent diarrhea since discontinuation of contraceptives. In the study, colonoscopy is performed, at the level of the sigma, a protruding lesion with intensely edematous and reddened mucosa is observed, although the pattern with light filters is apparently normal, which conditions an invagination and a relative stenosis of the lumen. Biopsies are taken, compatible with intestinal endometriosis. Intestinal endometriosis is an infrequent entity with a prevalence of 3-37 % with a very variable clinical presentation. The most common finding in colonoscopy is the eccentric thickening of the mucosa, and nodular mucosa with a polypoid appearance can also be found. For the definitive diagnosis, anatomopathological study will be important, so it is important to take biopsies of the lesion. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP526 Trainees can identify pathologically confirmed extensive gastric atrophy and intestinal metaplasia at endoscopy

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Aims We aimed to assess the capacity of trainees with minimal NBI experience to classify gastric atrophy and intestinal metaplasia (IM) during routine upper gastrointestinal endoscopies performed with HD scopes.

Methods This is an ongoing prospective study including trainees from a teaching hospital. Trainees systematically obtained biopsies according to the Sydney protocol. They completed a standardized post-endoscopy form including the Kimura-Takemoto (KT) classification [1] and EGGIM score [2]. Pathology was staged according to the OLGA [3] and OLGIM [4] systems. We compared endoscopy to pathology in regards to low (OLGA 0/II; OLGIM 0/II) vs high-risk findings (OLGA III/IV; OLGIM III/IV).

Results Fifty-three patients (65 + /- 13 years, 56 % women) were examined endoscopically by 7 trainees. According to the Kimura-Takemoto classification, 36 (68 %) had limited atrophy (C0-2) while 17 (32 %) had extensive atrophy (C3, O1-3), whereas for EGGIM score, 44 (86.3 %) had a score < 5, while 7 had a score of ≥ 5 (13.7 %) and 2 were not rated. In 68.5 % of cases, there was an agreement between the two endoscopic classifications. 11.3 % had extensive atrophy on biopsy with OLGA stages III/IV, while 9.4 % had OLGIM stages III/IV. The AUROC for EGGIM in predicting high-risk IM was 0.778 (95 % 0.636-0.921), and the observed overall agreement between extensive atrophy on KT and OLGA III/IV was 83.3 %.

Conclusions Trainees with no specific training in pre-neoplastic lesion assessment can identify extensive gastric atrophy using Kimura Takemoto and high-risk IM based on the EGGIM score.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP527 Unusual Presentation of Denture Ingestion Causing Sigmoid Perforation in a Patient with Prolonged Denture Loss

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Aims Foreign body ingestion is a common presentation in emergency departments and impaction may occur, especially in physiologic constrictions, angulations, or stenosis. The esophagus is the most common site of impaction, whereas colonic impaction is rare. This case presents a unique scenario where a denture was impacted in the sigmoid colon of a patient leading to bowel perforation and peritonitis.

Methods This case report outlines a rare presentation of a 69-year-old female who presented to the emergency department with acute abdominal pain in the left part of the abdomen. The pain started a day before and was more severe the day she arrived at our hospital. Physical examination revealed guarding and rigidity of the abdomen, more prominent on the left side, indicative of peritonitis. The patient reported the loss of her denture three days ago, but she didn't remember swallowing it.

Results Abdominal X-ray revealed free air and the presence of a denture in the left lower quadrant of the abdomen. Subsequent abdominal CT scan confirmed the denture's location within sigma, associated with signs of bowel perforation, free air, fluid, and surrounding inflammation. A colonoscopy was performed and a denture was identified in the normal sigmoid colon, embedded in the wall with prosthesis spikes. Forceps was used to dislodge and extract the denture while the perforation site was successfully closed with endoscopic clips. The patient was treated with antibiotics and her clinical symptoms along with imaging gradually improved. She was discharged with appropriate follow-up. [1–3]

Conclusions This case represents a rare occurrence of denture ingestion leading to sigmoid colon perforation in a patient with reported denture loss. Endoscopic intervention proved to be successful in both extracting the denture and closing the perforation. This non-surgical approach highlights the adaptability of endoscopic techniques in select cases, contributing to a favorable patient outcome.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP528 Sustainability and disposable duodenoscope's – First results from a prospective national recycling project

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DOI 10.1055/s-0044-1783817

Aims Single-use devices and equipment have been widely adopted in flexible endoscopy and currently almost all reusable accessories are abandoned due to hygiene, medico-legal and economic reasons. During the last 10 years also single-use endoscopes were deployed in the clinical routine, mainly in bronchoscopy and recently for duodenoscopy (ERCP) and gastroscopy to eliminate the risk of cross-contamination. A complete recycling of these scopes can reduce the ecological burden and may lead to a greener endoscopy. We evaluated the recycling process of single-use duodenoscope (aScope Duodeno; Ambu A/S, Denmark) in routine clinical practice.

Methods After routine clinical use the single-use duodenoscopes were precleaned and disinfected according to protocol before stored and transferred to the recycling facility. As the scopes do not penetrate the mucosa, they were not classified as biohazardous. In the recycling facility they are shredded and steam sterilized. Afterwards the materials are sorted and processed properly. Up to 9 different raw materials can be obtained due to the special processing technology. For the analysis of the recyclable materials of the aScope Duodeno, samples were sent to the German inspection company DEKRA. The main outcomes of this pilot projectare the overall percentage of recyclable materials and the reduction of CO2-footprint compared to incineration for each scope.

Results 92 scopes were recycled and analyzed. The overall weight of an aScope Duodeno is 665gr, there of plastics 75,5 % = 507,92 gr, metals 22,8 % = 153,18 gr, rubber 0,6 % = 4,14gr and others 0,2 % = 0,00 gr. According to a current interim analysis the overall recyclability of the scope is overall > 61 % and the amount of CO_2 savings of the recycling compared to incineration is 1.467 gr per scope and 2207 kg per tons.

Conclusions This is the first study reporting results of the recyclability of disposable endoscopes. Although it is technically demanding our results are quite promising. After the final material analysis, we expect that over 80 % by weight of the aScope Duodeno will be recyclable and the raw materials obtained could be led back in the ecologic and economic circle with continual re-use of finite resources while limiting relevant inputs and outputs.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP529 Risk factors for intra and post-procedural bleeding following endoscopic mucosal resection of nonpedunculated colorectal lesions

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DOI 10.1055/s-0044-1783818

Aims Post-polypectomy bleeding is one the most common complications of endoscopic mucosal resection (EMR). We aimed to assess the incidence of intraprocedural bleeding (IPB) and post-procedural bleeding (PPB) following EMR of nonpedunculated colorectal lesions and identify potential risk factors.

Methods Retrospective single center cohort study. All consecutive patients that underwent EMR in a non-tertiary hospital from January 2020 to September 2023 were included. Demographic information, clinical variables, characteris-

tics of colorectal lesions and procedural aspects were collected. Possible risk factors were assessed using logistic regression analysis.

Results 302 patients (61 % male; mean age: 68.9 ± 9.3 years) with a total of 410 colorectal lesions underwent EMR. The mean lesion size was 20.9 ± 10.5mm, with over half (51 %) exceeding 20mm, and the majority (57 %) were located in the right colon. En bloc resection was achieved in 47 % of cases. Regarding morphology, 58 % (n = 238) were classified as Paris 0-IIa and 30 % (n = 122) as lateral spread tumors.

IPB and PPB occurred in 8.3 % and 3.9 % of procedures, respectively, with none being clinically significant. Of these, 38 % required endoscopic therapy with snare tip soft coagulation or clip placement. Although right colon location showed a higher incidence of IBP and PPB, these differences were not statistically significant (p = 0.356 and p = 0.569, respectively).

Larger lesions were associated with a higher incidence of IBP (p < 0.05), with size > 20mm harboring the highest rate (p = 0.039. OR 2.159. IC 1.023-4.554). Higher SMSA (p = 0.001) and SERT (p < 0.005) scores were also associated with an increased incidence of IPB. Multivariate logistic regression analysis identified size as an independent risk factor for IPB (p = 0.015).

Patients medicated with antiplatelet (p < 0.05. OR: 7.924. IC 2.415-25.996) and anticoagulant (p < 0.05. OR 10.697. IC 3.366-33.994) drugs exhibited higher rates of PPB, accounting for 69 % of cases. Larger lesions were also associated with a higher incidence of PPB, though not statistically significant (p = 0.337).

Prophylactic soft coagulation of visible scar vessels was associated with a reduced risk of PPB (p = 0.013. OR 2.420. IC 1.233-9.484). Mechanical prophylaxis with clip placement, performed in 19 % of cases (71 % in the right colon), did not reduce the risk of PPB (p = 0.992). Multivariate logistic regression analysis confirmed anticoagulation as an independent risk factor for IPB (p = 0.028).

Conclusions Lesion size, SMSA and SERT scores were associated with a higher risk of IPB. Patients on antiplatelet and anticoagulant drugs are at higher risk of PPB. Prophylactic endoscopic coagulation of nonbleeding visible vessels within the mucosal defect reduced the risk of PPB and may be a viable strategy to decrease PPB in patients taking anticoagulants.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP530 Recurrence rate after (f)EMR of colon adenomas ≥ 2 cm: A retrospective single-center analysis

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DOI 10.1055/s-0044-1783819

Aims Piece meal EMR (fEMR) is an established technique for the resection of large colon adenomas. Based on the current literature, the recurrence rate of (f)EMR ranges between 15 % and 25 %, whereby recurrences can usually be resected endoscopically. Coagulation of the resection margins after fEMR has shown a reduction of recurrences in studies [1–3], and this has been implemented in our cohort since 2019.

Our retrospective analysis examines the (f)EMR of colon adenomas ≥ 2 cm in terms of recurrence rate, complication rate and the impact of margin coagulation.

Methods We analysed all consecutive (f)EMRs of colon adenomas ≥ 2 cm resected at Marburg University Hospital from 2017 to 2022. Demographic data, Paris classification, adenoma size, histology, margin coagulation (TA) and complications as well as the recurrence rate during follow-up were recorded. The recurrence rate for fEMR with TA versus fEMR without TA was compared. Non-lifting lesions that underwent primary (f)EMR with endoscopic full thickness resection were excluded.

Results 362 (f)EMRs of colon adenomas undertaken from 2017 to 2022 have been analyzed, most were resected in the right hemicolon (coecum (21,5 %), ascendens (34,8 %), transversum (14,4 %), descendens (7,5 %), sigma (13,8), rectum (7,7 %)). The mean adenoma size was 3.4 cm (IQR 2,3, 3,8). All adenomas were completely removed endoscopically.

The median follow-up period was 178 days (IQR 93, 548) with at least one endoscopic follow-up was documented for 79 % (n = 265) of resections.

The adenoma recurrence rate was 10.5 %, of which 70 % could be resected endoscopically. The curative resection rate was 97 %.

TA was performed in half (49,8 %) of the analysed resections (132 of 265). Coagulation of the resection margins had no influence on the recurrence rate (10.6 % vs. 10.53 %; p = .983). Furthermore, there was no statistical correlation between the recurrence rate and the size of the adenoma or histology (11,5 % in low grade dysplasia, 7,8 % in high grade dysplasia, 10 % in cancer).

Complications occurred in 12.4 % of the cases, mainly due to postprocedural bleeding (9.4 %), which could be stopped endoscopically, followed by perforation (2,5 %), post coagulation syndrome (0,3 %) and one case of media infarct due to periinterventional discontinue of anticoagulation. There were no lethal complications.

Conclusions (f)EMR of colon adenomas ≥ 2 cm is a safe and effective resection technique with a recurrence rate of 10.5 %. With the option of endoscopic resection, curative resection can be achieved in 97 % of cases. Our analysis revealed no influence of coagulation of the resection margins on the recurrence rate.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP531 Recurrence rate and predictors following piecemeal endoscopic mucosal resection of 10-20mm nonpedunculated colorectal polyps

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Aims Recurrence rates following piecemeal endoscopic mucosal resection (pEMR) range from 12 to 24 %. Data on recurrence following pEMR of 10-20mm nonpedunculated polyps is limited. We aimed to assess the recurrence rate after pEMR of these lesions and identify potential predictors of recurrence.

Methods Retrospective single center cohort study. All consecutive patients that underwent pEMR of 10-20mm nonpedunculated polyps in a non-tertiary hospital from January 2020 to March 2023 were included. Demographic information, clinical variables, characteristics of colorectal lesions and procedural aspects were collected. Logistic regression analysis was employed to assess possible risk factors.

Results 103 patients (59 % male; mean age 68.01 ± 8.90 years) underwent pEMR. The mean lesion size was 17.0 ± 2.55mm and 65 % were located in the right colon. Regarding morphology, 56 % were classified as Paris 0-IIa and 21 % as lateral spread tumors. High-grade dysplasia was found in 25 % of cases. Early colonoscopy surveillance at 6.9 ± 2.6 months was conducted for 48 % of patients. The recurrence rate was 20 % (n = 10). Lesions ulceration within the polyp (p = 0.048), central fibrosis (p < 0.05), higher SMSA score (p = 0.025), incomplete resection (p < 0.05), as well as exams with deficient bowel preparation (p = 0.028), were all associated with recurrence. Multivariate logistic regression analysis identified incomplete resection an independent predictor for recurrence (p = 0.001. OR 0.063. IC 0.014-0.280).

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Conclusions In our cohort, early recurrence following pEMR of 10-20mm nonpedunculated polyps was observed in 20 % of cases. Ulceration within the polyp, fibrosis, higher SMSA score , deficient bowel preparation and incomplete resection were associated with higher recurrence rates, with incomplete resection emerging as an independent predictor. Clinicians should consider these factors when making post-pEMR management decisions for patients with 10-20mm nonpedunculated polyps. Further studies are needed to evaluate the impact on colorectal cancer (CCR) risk and CRC-related mortality in such cases.
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP532 Buried Bumper Syndrome: One size does not fit all

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DOI 10.1055/s-0044-1783821
Abstract Text A 94-year-old woman with post-stroke dysphagia underwent percutaneous endoscopic gastrostomy (PEG) placement. Four weeks later, she was readmitted due to peristomal leakage and phlegmon. CT scan excluded complications. Broad-spectrum antibiotics were initiated. EGD revealed internal bumper migration to the gastric wall and mucosal overgrowth. Reposition and tube replacement attempts failed. Then, an ERCP guidewire was introduced into the gastric lumen. Through the guidewire, the internal stoma was dilated using 7mm-9mm Savary-Gilliard dilators (SGD), followed by placement of a 24Fr PEG. Reintroduction of nutrition was uneventful.
Buried Bumper Syndrome (BBS) management depends on the time elapsed since the PEG placement and concomitant complications. Endoscopic dilation with SGD is a safe and effective procedure in selected cases of BBS with mucosal overgrowth of the PEG insertion site.
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP533 Underwater colonoscopy with endoscopic mucosal resection in cecum

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DOI 10.1055/s-0044-1783822
Aims Underwater endoscopic mucosal resection (UEMR) is a technique for the removal of colorectal nonpedunculated lesions. The our study aim is to compare the efficacy and safety of UEMR versus conventional endoscopic mucosal resection in patients with cecal lesions.
Methods The study included 68 patients with nonpedunculated cecal lesions with a diameter < 20mm, 20-30mm, type 0-Is, 0-IIa or 0-IIa + Is according to the Paris Classification. Enrolled cases were divided into two groups: Group I comprised 36(52,9 %) cases with underwater endoscopic mucosal resection and Group II 32(47,1 %) patients with conventional endoscopic mucosal resection. Cases with deep submucosal invasion were not included. Optical evaluation with chromoscopy and NBI was performed by expert endoscopist, followed by endoscopic resection. The outcome was the lesion recurrence rate, en bloc resection, R0 resection rates, adverse events. Data were analysed using Chi-sq, descriptive statistic by SPSS version 26.0.
Results Underwater endoscopic mucosal resection was faster and easier to perform than conventional endoscopic mucosal resection. There were no differences in the overall recurrence rate between groups. However, the recurrence rate was lower for I Group (UEMR) (2,9 %) in cases of 20-30mm lesions size (II Group – 8,8 %); the R0 resection and adverse events showed the same tendency, only for polyps between 20 and 30 mm.
Conclusions Underwater endoscopic mucosal resection is safety method and could be considered for treatment of lesions between 20 and 30 mm in the cecal and right colon with low adverse events rates. [1–6]
Conflicts of interest Authors do not have any conflict of interest to disclose.
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eP534 Endoscopic therapy of severe delayed-onset bleeding after transrectal prostate biopsy

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DOI 10.1055/s-0044-1783823
Abstract Text A 62-year-old man with a high prostate-specific antigen level underwent transrectal prostate biopsy. Seven days after, he was admitted for hematochezia and hemorrhagic shock. Prompt resuscitation was initiated. Digital compression was ineffective. An emergency colonoscopy was performed, revealing a recent clot in the inferior rectum, which, upon removal, exposed an elevation of the mucosa with a pulsatile, large-caliber vessel in the anterior wall just above the pectineal line, suggestive of a Dieulafoy's-like lesion, which initiated active bleeding during the procedure. Hemostasis was successfully achieved using three through-the-scope (TTS) clips. The patient had no further bleeding and no need for additional red blood cell transfusions.
Delayed and severe bleeding post-transrectal prostate biopsy occurs in 1 % of cases. The application of TTS clips proved to be a secure, effective, and minimally invasive treatment.
Conflicts of interest Authors do not have any conflict of interest to disclose.

eP535V Combined percutaneous-endoscopic post-hepatectomy bile-duct reconnection using a biloma as a meeting point

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DOI 10.1055/s-0044-1783824
Abstract Text Introduction: Interventional reconnection of severe bile-duct injury may avoid complex surgical revisions.
Case: High-output bile leakage after left hepatectomy followed by percutaneous drainage of biloma. EUS-guided transgastric biloma drainage with LAMS and fully covered metal stent at 1st endoscopic session. At revision ERCP, complete disconnection is confirmed. PTC is performed for rendezvous before 3rd session. A cholangioscope is passed into the biloma, and guidewires passed through the percutaneous catheters (biloma and segment VI) are retrieved. An Amsterdam 8.5F stent is placed across the biloma into segment VI. Pigtail stents placed though LAMS. Output stops.
Comment: Synergistic use of PTBD, EUS and ERCP with cholangioscopy reconnected the duct.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/95403441-10ad-40d0-8acc-4c70c0ef194f/Uploads/13821_001499.mov

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP536 Comparative Analysis Of Fecal Immunochemical Test And Colonoscopy In Colorectal Cancer Screening In A Country In West Africa

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Aims The efficacy of fecal-based screening for colorectal cancer in sub-Saharan Africa has not been thoroughly studied, and its validation mostly depends on data from affluent countries. The study investigates a comparative analysis framework between fecal immunochemical testing and colonoscopy in colorectal cancer screening in sub-Saharan Africa, particularly in Nigeria.

Methods Using data collected from a multinational company in Nigeria, the study analyzed the specific and relationship effects of fecal immunochemical tests (FIT) and colonoscopy in colorectal cancer screening using both asymmetric and symmetric link functions in 27 states in Nigeria, as well as comparing them. Socio-demographic and economic characteristics, including gender, age, employment status, smoking history, alcohol intake, regular exercise, health history, BMI index, and HDL/LDL ratio, were used as covariates. An optimal model selection would be carried out on the asymmetric and symmetric link functions (probit model, logit model, and complementary log-log model) and thus select the best model using the lowest value obtained from AIC and BIC. In the study, a total of 1341 datasets were gathered across 27 states in Nigeria.

Results 7.3 % of the sample population tested positive for FIT, out of which 4.1 % are qualified for colonoscopy in colorectal cancer screening due to their eligibility for FIT. Also, it was indicated in the result that 14.3 % of the sample population have an underlying disease ranging from grade 1 internal hemorrhoids to grossly normal colonoscopy to the caecum, etc.; 13.8 % of the results are pending as of the time of gathering the data; and 71.9 % are not applicable for the test. Further findings indicated that the screening method used to identify advanced FIT in first-degree relatives of those with colorectal cancer is similar to colonoscopy.

Conclusions The study showed that limited resources for widespread colonoscopy availability, potential concerns with patient adherence, and the need to balance cost-effectiveness with diagnostic accuracy are among the hurdles. The report takes specialized approaches to overcome these obstacles in order to guarantee comprehensive colorectal cancer screening programs in the African environment. These approaches should prioritize the use of affordable screening techniques, such as fecal immunochemical tests, and take regional healthcare disparities into consideration.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP537 The cap assisted resection margin assessment (CARMA) technique – a prospective multicentre trial of a novel standardised approach to reduce colonic post-polypectomy recurrence risk

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Aims There is a significant heterogeneity in incomplete polyp resection rates (>threefold) between endoscopists. Unrecognised polyp residual during endoscopic mucosal resection (EMR) especially at the resection margin appears to be the main cause resulting in high recurrence rates and interval cancer risk. We developed and aimed to test a standardised technique to address this problem.

Methods Multicentre prospective trial including all consecutive (non-stalked) polyps > 10mm referred for endoscopic mucosal resection to two trial endoscopists. All procedures were performed with high definition colonoscopes using a distal cap attachment. Resections were performed en bloc or piecemeal using cold and/ or hot snares with or without submucosal lift solution as per the endoscopist's discretion. Subsequently, CARMA technique performed allowing undisturbed in focus assessment with magnification and/ or near focus of the entire resection margin (and base if required) using high-definition white light and/ or narrow band imaging. Any potential residual polyp tissue was resected with a cold snare and assessed histologically followed by circumferential resection of the entire clear resection margin for separate histological review.

Results 48 polyps (40 adenomas and 8 sessile serrated lesions) were resected in 44 patients with average size 23.6mm (median 20mm; range 10-45mm). Resection techniques used were cold snare in 23 polyps (4 en bloc; 19 piecemeal) and hot snare in 21 polyps (6 en bloc; 15 piecemeal) and mixed hot and cold piecemeal in 4 polyps. Subsequent CARMA technique identified and cleared residual polyp tissue at the resection margin in 25 polyps (52 % of all polyps). Single microscopic foci of polyp tissue were present in the clear margin samples of only three resected polyps (6.3 %; 2 adenomas, 1 SSL) of which one likely represents a contaminant. No CARMA-related adverse events were noted. First surveillance colonoscopy has been performed in 67 % of patients thus far without evidence of endoscopic or histological recurrence (0 %).

Conclusions CARMA technique is highly effective in identifying and clearing the common occurrence of residual polyp tissue at the EMR margin from 52 % down to 6.3 %. CARMA as well as wide margin resection significantly decrease the risk of post-EMR polyp recurrence independently of EMR technique used.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP538 Fate of patients with negative EUS-tissue acquisition for suspected PDAC

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Aims Endoscopic ultrasound-guided tissue acquisition (EUS-TA) stands as the primary approach for histopathological sampling of solid pancreatic masses. Despite significant advancements in needle types and sampling techniques, the diagnostic efficacy of EUS-TA remains suboptimal in certain scenarios. Our aim was to study a cohort of patients who underwent EUS-TA tests for suspected pancreatic ductal adenocarcinoma (PDAC), focusing primarily on patients with negative results on tissue sampling.

Methods We conducted a retrospective analysis on patients with a high suspicion of PDAC, based on cross-sectional imaging (CT/MRI), and who were

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admitted to an academic hospital over an 18-month period. Our cohort underwent EUS-TA tests via fine-needle aspiration (FNA) or fine-needle biopsy (FNB), depending on the availability and endoscopist decision, without rapid on-site evaluation (ROSE). We excluded patients with clinical or imaging findings indicative of tumors, other than PDAC (neuroendocrine tumors, metastases or pancreatic cysts).

Results A total of 109 patients with imaging suspicion of PDAC underwent EUS-TA [FNA, n = 72 (66 %); FNB, n = 37 (33.9 %); 57 males (52.2 %); mean age 65.3 years]. Out of these, 89 cases (81.6 %) were confirmed as PDAC after an initial attempt of EUS-TA. The remaining 20 patients (18.3 %) yielded inconclusive results on the first EUS-TA attempt. Among these, 13 (65 %) of them underwent a second EUS-FNB attempt, which was 100 % diagnostic, identifying 3 PDAC cases, 7 chronic pancreatitis cases, 2 lymphomas, and 1 neuroendocrine tumor (NET). Overall, the EUS-TA test yielded statistically significant results in 93.57 % of the studied cases. Three patients (15 %) underwent percutaneous biopsy, revealing 2 PDAC cases and 1 autoimmune pancreatitis. Two patients (10 %) underwent surgery, with PDAC confirmed in the resection specimen, while 2 patients (10 %) were lost to follow-up.

Conclusions Our findings reaffirm that a first-attempt negative EUS-TA result does not necessarily exclude malignancy. A second attempt of EUS-TA is recommended, combined with the use of FNB needles which can improve the diagnostic yield and secure a positive diagnosis.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP539 Additional adjuvant radiotherapy and/or chemotherapy following endoscopic resection for infiltrative T1b-SM2,3/T2 rectal cancer: A retrospective cohort study

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Aims Endoscopic submucosal dissection (ESD) constitutes the standard of care for local excision and staging of early rectal cancer. Patients with deep submucosal invasion into the mid-lower third of the submucosa (pT1b-SM2,3) or the muscle layer (pT2), are currently diagnosed with a non-curative resection and additional surgery protrudes as the most suitable approach according to the present guidelines. This study aimed to evaluate the efficacy of adjuvant radiotherapy and/or chemotherapy following endoscopic resection for reducing recurrence after local resection in patients diagnosed with deeply infiltrative rectal polyps unwilling or unsuitable for additional surgical resection.

Methods Forty-nine patients with high-risk early rectal cancers pT1 or pT2 underwent post-resection adjuvant radiotherapy and/or chemotherapy. Endoscopic knife-assisted resection techniques, including ESD, EID (Endoscopic Intermuscular Dissection) and EFTR (Endoscopic Full-Thickness Resection), were accomplished by experienced endoscopists. Post-resection adjuvant radiotherapy was administered with a median dose of 48 Gy and/or concurrent capecitabine or 5-fluorouracil or leucovorin were administered to the patients as additional chemotherapy. En-bloc macroscopic resection, R0 resection, recurrence rate and adverse events following resection and adjuvant therapy were recorded as outcomes.

Results The main reason for initial endoscopic resection of rectal polyps was the diagnostic staging of the disease (38/49, 77.6 %) with the majority of the dissections accomplished by ESD. Complete en-bloc resection was demonstrated in 48/49 (98 %), with classical adenocarcinoma being the most frequent diagnosis (91.8 %) after removal. The average follow-up of the patients was 20.2 months with endoscopic recurrence in 7/49 (14.3 %) of polyps. Mean time for the endoscopic diagnosis of recurrence was 8.9 months. Adjuvant therapy following endoscopic resections consisted of radiotherapy in 44.9 % (22/49), chemotherapy in 12.2 % (6/49) and combination of chemo-radiotherapy in 40.8 % (20/49) of the cases. Severe post-procedural bleeding and incontinence were the most frequent complications after resections (4.1 %) and radiation proctitis presented in 2/41 cases with adjuvant radiotherapy. The absence of superficial ulceration was associated with complete en-bloc resection, while the lesions with lower budding stages and clear lateral margins in histology were associated with less endoscopic recurrencies. Even though, R0 resection in pT2 cancers was achieved in less than half of the patients (4/10), endoscopic recurrence revealed only in one pT2 case. One patient was diagnosed with lymph mode metastasis and 2/49 patients with distant metastasis in follow-up.

Conclusions Our data investigated adjuvant radiotherapy and/or chemotherapy after endoscopic resection of infiltrative rectal cancers (pT1bSM2,3-pT2) as being safe and effective for locoregional control and may provide a non-surgical treatment option for patients with early rectal cancers and non-curative resections according to present guidelines.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP540 Risk factors associated with the presence of serrated adenomas in a population undergoing screening colonoscopy in the northwest of Mexico

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Aims Analyze variables associated with the presence of serrated lesions in patients undergoing screening colonoscopy in Mexico.

Methods Multicenter, prospective, cohort study of patients in whom screening colonoscopy was performed in the period from March 8 to July 7, 2023, obtaining 211 patients. The procedures were performed in two endoscopy centers by 3 physicians in the city of Mexicali, Baja California, Mexico, with a standardized technique, high-definition equipment Fujifilm 760R and ELUXEO 7000. Sociodemographic variables were collected, including personal pathological history, colonic preparation regimen, and the detection of premalignant lesions such as adenomatous and serrated polyps. The variables studied are shown as mean, median, standard deviation, and *p* value. Measures of central tendency were calculated, and univariate/multivariate logistic regression analysis was performed using IBM SPSS v21.

Results A total of 211 patients were included (127 women, 60.2 %; mean age 54.1 ± 14.06, BMI 28.4 ± 5.01) with a history of hypertension (34.6 %), obesity (34.1 %), type 2 diabetes mellitus (16.1 %), hypothyroidism (10 %), among others. The preparation regimens used where: a full single dose of 4-liter polyethylene glycol (45.4 %), a split dose of 1-liter polyethylene glycol plus sodium ascorbate and ascorbic acid (28.9 %), a split dose of 4-liter polyethylene glycol (25.5 %). A total of 37 cases were identified with serrated polyps (17.5 %) of which 78.3 % had a single lesion, 5.4 % had 2 lesions, 10.8 % had 3 polyps and 5.4 % had multiple lesions (> 3). 86.5 % of the lesions were located on the right side of the colon, 8.1 % on the left side, and 5.4 % on both sides.

The variables that showed statistically significant association with the presence of serrated lesions were a history of hypertension (28.7 % vs 11.5 %, OR = 3.07, IC 95 %: 1-48-6.37, p = 002), the use of antihypertensive medication (29.8 % vs 11.8 %, OR = 3.17, CI 95 %: 1.53-6.58, p = .002) and a history of an acute coro-

nary syndrome (60 % vs 16.5 %, OR = 7.58, CI 95 %: 1.22-47.1, p = 0.39). Patients with serrated polyps had higher BMI 29.7 ± 6.5 vs 28.1 ± 4.59, p < 0.001).

Conclusions Serrated lesions are associated with metabolic syndrome components, which correlates with previously reported literature. There are few reports related to ACE inhibitors ,colon cancer and serrated adenomas. Further research is needed in other demographic zones of Mexico, given that the northwest population of the country could have similar environmental factors to those of the North American population and thus influence the results.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP541 Successful EUS-HGS for management of benign biliary obstruction inaccessible by ERCP

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Aims Endoscopic ultrasound-hepaticogastrostomy (EUS-HGS) is now an accepted modality for biliary drainage in selected cases of left sided malignant biliary obstruction, such as in surgically altered anatomy. We report a case series whereby EUS-HGS has been invaluable to treating patients with proximal benign biliary obstruction.

Methods A retrospective review of our tertiary unit was conducted of patients who were managed with EUS-HGS for benign biliary obstruction secondary to stone disease. Technical success was measured by successful placement of a fully covered SEMS (fcSEMS) (two cases 8 cm x 10mm and one 6cm x 10mm Wallflex Biliary Rx Stent, Boston Scientific, Marlborough MA, USA) between the left intrahepatic bile duct and the stomach, and subsequent use of a cholangioscope (Spyscope DSII, Boston Scientific, Marlborough MA, USA) with electrohydraulic lithotripsy (Autolith Boston Scientific, Marlborough MA, USA) to clear the bile duct of stones. Clinical success was measured by resolution of biliary obstruction and improvement in liver function tests.

Results Three patients aged 40 to 56 with stone disease were identified who were managed with EUS-HGS. Patient 1 had surgically-altered anatomy with a background of a choledochal cyst resection with hepaticojejunostomy. Patient 2 had both a right hepatic duct uncovered self expanding metal stent (ucSEMS) and a Roux-en-Y gastric bypass. Patient 3 had a previously placed ucSEMS into the right hepatic duct in the context of a previous biliary obstruction managed elsewhere. Technical and clinical success were achieved in all patients. Two patients had post-procedural pain, which did not extend their hospital admission. There were no other adverse events. All patients underwent a three-staged procedure: initial EUS-HGS using a fcSEMS; six weeks later, Spyglass cholangioscopy with electrohydraulic lithotripsy was used to clear the biliary tree of stones; and a third endoscopy a further 6 weeks later to remove the fcSEMS and replace with double pigtail stents to maintain the HGS tract long term. None of the patients required reintervention for biliary obstruction over the next 6 months of follow up. [1]

Conclusions EUS-HGS has become an effective method of biliary drainage in malignant biliary obstruction in selected patients with altered anatomy or inaccessible duodenum [Ishiwatari, 2022]. Our case series suggests EUS-HGS is an effective technique for biliary drainage in proximal BBO in selected patients. This technique also facilitates subsequent cholangioscopic directed therapy such as lithotripsy for hepatolithiasis. Long term drainage is also achieved via the HGS tract, limiting the need for reintervention.

EUS-HGS should be considered in the management of proximal benign biliary obstruction in carefully selected patients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP542 Comparative Analysis of Microbial Species and Multidrug Resistance Patterns in Acute Cholangitis Patients with Cholecystectomy

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Aims This study aimed to compare microbial species and multidrug resistance patterns in acute cholangitis patients with and without a history of cholecystectomy. We hypothesized that post-cholecystectomy patients would exhibit distinct microbial spectra and resistance patterns.

Methods Conducted at a Western Romanian hospital specializing in gastroenterology and hepatobiliary diseases from 2020 to 2023, this retrospective study included 488 acute cholangitis patients, divided into groups based on cholecystectomy history. Bile and blood samples were analyzed for microbial identification and antibiotic susceptibility using VITEK2. Positive biliary cultures were found in 66 % of patients.

Results The cholecystectomy group showed a higher prevalence of multidrug-resistant organisms, with 74.4 % exhibiting resistance compared to 31.5 % in the non-cholecystectomy group (p < 0.001). Notable microbial differences included higher occurrences of Escherichia coli (40.2 %) and Enterococcus spp. (32.4 %) in the cholecystectomy group. Resistance to Piperacillin/Tazobactam and Penems was significantly higher in this group, with odds ratios of 3.25 (p < 0.001) and 2.80 (p = 0.001), respectively for the development of MDR bacterial species.

Conclusions The study confirmed our hypothesis, revealing distinct microbial profiles and a higher prevalence of multidrug resistance in acute cholangitis patients post-cholecystectomy. These findings underscore the need for tailored antibiotic strategies in managing acute cholangitis in this patient demographic.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP543 Intra-observer reproducibility of share-wave endoscopic ultrasound elastography for assessing pancreatic tissue stiffness

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Aims Endoscopic ultrasound share-wave elastography (EUS) is a minimally invasive diagnostic technique for assessing tissue elasticity. The current study aims to assess the repeatability of pancreatic tissue stiffness using endoscopic ultrasound share-wave elastography (EUS-SWE) system Arietta 850 ultrasound machine and Olympus Echoendoscope.

Methods A prospective study was conducted, recruiting consecutive patients who underwent pancreatic tissue ultrasound SWE (EUS-SWE). Seventeen consecutive measurementswere taken in all patients by a single operator. The intra-observer reproducibility of the techniquewas evaluated using the inter-class correlation coefficient (ICC). Median VsN values of the first 10 and last 7 measurements were calculated.

Results 54 patients who underwent endoscopic ultrasound (EUS) guided elastography of the pancreas were included: 57.4 % women and 42.6 % men, with a mean age of 63.8 ± 12.6 years. The overall intra-observer agreement was excellent: 0.961 (95 % CI: 0.934-0.977). A strong correlation was obtained between measurements (r = 0.96, 95 % CI: 0.933-0.977, p < 0.0001).

Conclusions). The good ICCs of the values indicate that the presented endoscopic ultrasound SWE (EUS-SWE) system, is a reproducible method for assessing pancreatic tissue stiffness.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP544 1000 Per-Oral Endoscopic Myotomy and counting: an 11-year experience at a single endoscopy center

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Aims Per-Oral Endoscopic Myotomy (POEM) was introduced in clinical practice few years ago, and quickly become one of the first line treatments of esophageal motility disorders. We report on the outcomes of the first 1000 patients treated with POEM in a single tertiary referral center during 11 years.

Methods The first 1000 patients treated with POEM between May 2011 and September 2022 were identified from a prospective database and included in this study. Demographics, clinical and technical and follow-up data were collected and analysed. After treatment, patients underwent a regular follow-up (6 month and 2, 5 and 10 years after POEM). Timed Barium Esophagram, EGD, and esophageal manometry were performed before treatment and during post-operative follow-up; a 24-hour esophageal pH monitoring study was performed 6 months after POEM. Clinical failure was defined by and Eckardt score > 3.

Results Mean age of patients was 51.5 years; 49.8 % were male. 110 patients had previously received pneumodilation, 46 surgical myotomy, 21 botulinum toxin injection. 141 patients had a type I achalasia, 626 a type II, 11 % a type III, 30 non-achalasia spastic esophageal motility disorders; in 92 patients achalasia type were not adequately classified. A sigmoid-type esophagus was present in 45 patients. Mean symptoms duration before POEM was 24 ± 64.6 months. POEM was technically successful in 979 patients. Mean operative time was 50.4 minutes (11–180 minutes). Mild or moderate complications occurred in 28 patients (2.8 %) and were managed conservatively. Severe complications occurred in 2 patients and required prolongation of hospital stay and other interventional treatment. A mean follow-up of 30.4 months (3–130 months) was available for 93.8 % of patients. Overall clinical success rate (Eckardt score ≤ 3) was 95.1 %. Clinical success was 97.3 %, 95.2 %, 90.8 % and 82 % after 6 months, 2 years, 5 years and 10 years, respectively. 33 patients with clinical failure underwent pneumodilation, 5 patients surgery and one re-POEM. Clinical success was 93.4 % in achalasia-patients and 83.3 % in those with spastic motility disorders (p = 0.1742). An altered esophageal pH-study was documented in 32.6 % patients; esophagitis rate was 34 % (88 % grade A/B; 12 % grade C/D). At the date of the last follow-up, 38 % of patients was receiving daily proton-pump inhibitors. Two patients underwent antireflux surgery. Non cases of post-operative Barrett esophagus were identified.

Conclusions Our results confirm the efficacy of POEM in a large cohort of patients. Benefits of POEM seem durable; adverse events are rare and no specific mortality was reported. Prevalence of GERD is relatively high, but well controlled by medications in the vast majority of patients.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP545 Aerodigestive fistulas and leaks following immunotherapy in lung cancer patients: endoscopic diagnosis and management

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Aims Immunotherapy has dramatically changed advanced Non-Small Cell Lung Cancer (NSCLC) management improving oncological outcomes and reducing treatment related adverse events. However proximal and distal airway fistulas as well as esophageal leaks following chemo-immunotherapy have been reported. We report our experience in chemo-immunotherapy-related esophageal and airways fistula management.

Methods We retrospectively analyzed clinical and endoscopic data of patients who developed airway fistulas and/or esophageal leaks following immunotherapy from January 2022 to January 2023. Leaks and fistulas have been endoscopically diagnosed with EGDS and video bronchoscopy evaluation. Endobronchial fistulas were assessed with methylene-blue instillation. Distal airways fistulas were diagnosed after persistent stream air leakage following chest-tube positioning due to hydro-pneumothorax.

Results Nine patients were diagnosed with proximal and distal airways and esophageal fistulas after chemo-immunotherapy for NSCLC. Comprehensively, 5/9 (56 %) patients presented esophageal leaks, 3/9 (33 %) had distal airway fistula and 1/9 (11 %) had proximal airway fistula. Stage at diagnosis was III in 22 % and IV in 78 %. Chemotherapic regimen was Pemetrexed-Cisplatin-Pembrolizumab in 7 (77 %) patients, Pembrolizumab in 1(11 %) patient and Pemetrexed-Cisplatin-Nivolumab in 1(11 %) patient. Esophageal leaks were treated with fully-covered-stent positioning. Airways fistulas were treated conservatively after chest-tube positioning until complete air-leakage resolution. In one case, an endobronchial valve was positioned due to persistence of the air-leak after 30 days. Leaks and fistulas resolved in 8/9 (88 %), one patient died before every possible treatment.

Conclusions Esophageal leaks and airways fistulas are rare life-threatening complications of immunotherapy treatment for NSCLC. Leaks could be caused by rapid changes in tumor mass and lymphadenopathies adhering to or infiltrating the mediastinal structures. While proximal airways tears still have a poor prognosis, endoscopic positioning of fully-covered-stent or endobronchial-valves for persistent-air-leakages can improve outcomes in esophageal and distal airways leaks.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP546 Efficacy and safety of Endoscopic ultrasound-guided hepaticogastrostomy for biliary obstruction: A comprehensive systematic review, meta-analysis and meta-regression

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Aims Endoscopic ultrasound-guided hepaticogastrostomy (EUS-HGS) has emerged as an alternative method of biliary drainage in patients presenting

with biliary obstruction (BO). This meta-analysis with meta-regression comprehensively aimed to study success, efficacy and safety of EUS-HGS.

Methods Several databases were systematically searched for studies evaluating EUS-HGS for BO till April 2023. Studies with < 10 patients were excluded. Primary outcome was the technical and clinical success of procedure. Secondary outcomes included adverse events (AE), survival time, reintervention, recurrent biliary obstruction and stent patency rates. Sub-group analysis based on type of stent, year of publication as well as geographical differences (east vs west) were also conducted.

Results Sixty-eight studies (18 prospective) with 3292 patients (59.8 % males) were included. Most common indication was malignant BO (93.1 % patients). Pooled rates of technical and clinical success were 97.1 % (93.4 %-100 %, $I^2 = 0$; 68 studies) and 84.0 % (95 % CI 79.0-88.1 %, $I^2 = 14.7$ %, 57 studies) respectively. Mean procedure time was 28.9 minutes (95 % CI 22.0-35.8 %, $I^2 = 73.1$ %; 24 studies). Adverse events were noted in 26.1 % (95 % CI 21.8-30.4 %, $I^2 = 29.9$ %; 68 studies) patients with majority being mild 10.0 % (95 % CI 4.3-15.6 %, $I^2 = 0$ %; 20 studies). Pooled rates of moderate and serious AE were 9 % (95 % CI 3 %-14 %, $I^2 = 0$ %; 21 studies) and 2.8 % (95 % CI 3.6-9.1 %, $I^2 = 0$ %, 10 studies), respectively. Various AE included pain (7 %), perforation (2 %), bile leak (3 %), peritonitis (7 %), bleeding (3 %) and sepsis (6 %).

Pooled rates of stent patency were 93.78 days (95 % CI 78-109.2; $I^2 = 0$ %; 13 studies). Pooled rates of recurrent biliary obstruction (RBO) were 22 % (95 % CI 16 %-27 %; $I^2 = 0$ %; 25 studies). Pooled reintervention rates were 19.0 % (95 % CI 14.7-23.3 %, $I^2 = 0$ %, 44 studies) patients. Overall survival was 101.6 days (95 % CI 60.9-142.4 %, $I^2 = 0$ %, 9 studies) and death was observed in 3.5 % (95 % CI 3.1-10.0 %, $I^2 = 0$ %, 13 studies) patients. On meta-regression, year of publication was associated with decreasing rates of AE (32 % vs 23 %; p = 0.04). Clinical success rates were higher in studies reported from the east (compared to the west), but did not differ amongst types of stents (metal vs. plastic) or type of publication (prospective vs retrospective).

Conclusions As a modality for biliary drainage, EUS-HGS has high rates of technical and clinical success with low rates of serious adverse events. Data suggests that rates of adverse events have declined with time, probably due to improved operator experience and technique.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP547 Efficacy of different stent types on post-liver transplant anastomotic biliary strictures: a systematic review and meta-analysis

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Aims Stent selection in endoscopic management of post-liver transplant anastomotic biliary strictures remains controversial. This systematic review with meta-analysis aimed to evaluate the potential differences of the available stents.

Methods The systematic research was performed in MEDLINE, Cochrane, and Scopus databases until April 2023 for comparative studies evaluating the stricture management using multiple plastic stents (MPS) and self-expandable metal stents (SEMS), including fully-covered (FC)-SEMS and intraductal (ID)-SEMS. The primary outcome was stricture resolution and secondary outcomes included stricture recurrence, stent migration, and adverse events. Meta-analyses were based on random effects model and the results were reported as odds ratios (OR), with 95 % Confidence Intervals (95 % CI). Subgroup analyses by type of metal stent and a cost-effectiveness analysis were also performed.

Results Nine studies (687 patients) were finally included. Considering stricture resolution, SEMS and MPS did not differ significantly [OR:0.99 (95 % CI:0.48-2.01; $I^2 = 35$ %)]. Stricture recurrence, migration rates and adverse events were also comparable [OR: 1.71 (95 % CI:0.87-3.38; $I^2 = 55$ %), OR:0.73 (95 % CI:0.32-1.68; $I^2 = 56$ %) and OR:1.47 (95 % CI:0.89-2.43; $I^2 = 24$ %)]. In the subgroup analysis, stricture resolution and recurrence rates did not differ for ID-SEMS vs MPS and FC-SEMS vs MPS. Migration rates were lower for ID-SEMS compared to MPS, with OR:0.28 (95 % CI:0.11-0.70; $I^2 = 0$ %), and complication rates were higher after FC-SEMS compared to MPS [OR:1.76 (95 % CI:1.06-2.93; $I^2 = 0$ %)]. Finally, ID-SEMS were the most cost-effective approach with the lowest incremental cost-effectiveness ratio: 3447.6£/QALY.

Conclusions Stent type did not affect stricture resolution and recurrence, however ID-SEMS placement was the most cost-effective approach compared to alternatives.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP548 Endoscopic suturing for defect closure in the upper gastrointestinal tract: a retrospective cohort study

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Aims The increasing availability of gastrointestinal (GI) interventions has raised the need to treat luminal defects. Endoscopic suturing (ES) is a minimally invasive technique, used for a wide range of indications. This retrospective cohort study aimed evaluate the performance of ES in treating upper GI defects.

Methods Data from a tertiary centre were collected for patients undergoing ES to treat upper GI defects. The primary outcome was technical success, defined as the successful sutures' deployment. Secondary outcomes included immediate clinical success (confirmation of closure at the time of the procedure), recurrence, long-term outcomes and complications. Descriptive statistics and x^2 test were used to calculate the rates of the outcomes and assess any link between independent variables and results.

Results Forty-two procedures were performed on 25 patients between 2018 and 2023. The mean age was 55 (± 16.2) years and 56 % were female. The technical success rate was 88.1 % (37/42) and immediate clinical success 91.9 % (34/37), with only two (4.8 %) adverse events. The overall recurrence rate was 61.8 % (21/34), with a long-term clinical success rate of 69.6 % (16/23). Technical success was higher in oesophagus (92.3 %), and stomach (100 %) (p = 0.002), and immediate clinical success was more likely in patients with leak (88.9 %) or fistula (95.2 %) compared to perforation (50 %; p = 0.005).

Conclusions ES demonstrated high rates of technical and immediate clinical success for defect closure in the upper GI tract, with low rates of complications. The benefit is most prominently seen among patients with leaks and fistulas in the stomach and oesophagus.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP549 No news is bad news – an unusual cause of bleeding in a cirrhotic patient

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Abstract Text A case of a 75 years-old female patient, known with multiple cardiovascular risk factors and liver cirrhosis secondary to primary biliary cholangitis, was referred to our clinic for endoscopic investigation of severe anemia. The patient denied any evidence of bleeding. CT scan showed nonspecific localised gastric and ileal wall thickening. Following anemia correction, we performed both gastroscopy and colonoscopy, with normal findings. Next we decided to evaluate small bowel using capsule endoscopy. Two hours from the pyloric region and forty minutes before the cecum, an ulcerated circumferential lesion with stigmata of bleeding was discovered. Surgical management was applied (segmental enterectomy) and the histopathology report was conclusive for low-grade B cell lymphoma.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP550 Safety and efficacy of cryo-ablation on Barrett esophagus: a systematic review and meta-analysis

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Aims Barrett esophagus (BE) represents a pre-malignant condition of the esophagus and current guidelines favor endoscopic eradication therapy (EET). After endoscopic resection for visible neoplastic lesions, field ablation of the residual BE is advised to mitigate the risk of metachronous neoplasia. Cryoablation was introduced as an endoscopic ablative option for BE during the last decade with growing data on outcomes and interest in potential lower adverse events that established ablative techniques. This systematic review and meta-analysis aimed to summarize the existing data regarding safety and efficacy of Cryoablation on BE treatment.

Methods A systematic literature search in Medline, Cochrane and Scopus databases was performed until November 2023 for full papers. Safety was considered as the primary outcome, interpreted as the overall rate of procedure related adverse events. Secondary outcomes included post-Cryoablation stricture development, and the complete eradication rates of intestinal metaplasia (CEIM) and dysplasia (CED). In case of heterogeneity, a sub-analysis based on the used device was performed for the primary outcome. Random effects model was used and the results were reported as percentages for pooled rates with 95 % Confidence Intervals (95 % CIs).

Results Ten full-paper studies (471 patients; 80.3 % men; mean age 62.2-69) were eligible for analysis. The mean BE length, based on Prague classification, was C0-2M2-5. Regarding the primary outcome, the overall adverse events rate was 19.7 % (95 % CI: 14-25.4; $I^2 = 60.66$ %), although they were mild in the vast majority. Strictures warranting treatment were developed in 30 patients, representing 4.4 % (95 % CI: 1.8-7.1; $I^2 = 61.18$ %). Four studies provided results on CED, yielding a rate of 94.6 % (95 % CI: 90.1-99.1; $I^2 = 61.06$ %) whereas CEIM was assessed in six studies, reporting a rate of 90.1 % (95 % CI: 82.3-97.9; $I^2 = 87.92$ %). Given the high heterogeneity in all outcomes, a sub-analysis including studies on focal Cryoablation was performed, revealing a similar rate of adverse events [16.5 % (95 % CI: 11.1-21.8)] with lower heterogeneity and non-significant heterogeneity ($I^2 = 47.7$ %).

Conclusions Cryoablation is a safe procedure with initial data showing a potentially low rate of esophageal strictures and comparable rates of dysplasia and BE eradication when compared to other ablative technologies. High-quality prospective studies including comparisons with established ablation techniques are warranted.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP551 Cholangitis after plastic stenting of the bile duct: frequent, serious and unpredictable?

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Aims Endoscopic placement of one or multiple stents during ERCP is the main treatment modality of biliary obstruction of both benign and malignant origin. While technological advancements have allowed a gradual transition from plastic to metal stents in many indications because of improved outcomes and prolonged patency, the use of plastic stents (PS) remains widespread. Although current guidelines recommend scheduled stent exchange at 3 months interval in most indications, the optimum timing of stent exchange across various clinical indications is debatable. Our aim was to compare patency rates between PS placed for benign versus malignant indications and identify risk factors for early stent occlusion.

Methods We performed a post-hoc analysis of the TEMPEST study (a prospective cohort study assessing clinical outcomes in native papilla patients receiving at least 1 PS during ERCP). Clinical and procedure related data was retrieved from the study database. We compared occlusion rates and patency times (ie time until development of cholangitis) in benign versus malignant indications. Stent occlusion with associated cholangitis was defined according to the Tokyo criteria.

Results We analyzed data from 159 consecutive ERCPs with PS performed in the Gastroenterology Department at Colentina Clinical Hospital during the 1 year interval of the TEMPEST study. 62 % (99/159) of the patients were male and mean age was 65 years. The indications for PS during ERCP were as follows: malignant strictures (84,3 %), benign strictures (5 %), choledocolithiasis (7.5 %) and bile duct leaks and other indications (3.1 %). Complete follow-up data was available for 136 patients; of these, 47 developed cholangitis before scheduled PS exchange (34.6 %), with a median stent patency of 32 days (range 0-128) in these cases. There was a significant difference in median times until stent exchange in the group of patients developing cholangitis versus those who did not develop cholangitis (54 vs 90 days, $p = 0.004$ Mann Whitney U). On multivariate analysis using Cox regression, the only risk factor for postERCP cholangitis was a positive bile culture obtained at the index procedures (OR 2.19, 95 % CI 1.05-4.6) ; patient age, gender, bilirubin level, stent diameter and indication for ERCP (benign vs malignant) were not significantly correlated with development of cholangitis.

Conclusions Stent occlusion and cholangitis after PS remains a serious issue, affecting a significant percentage of patients. In our study, most patients developed cholangitis much earlier than expected based on current guideline recommendations for schedule PS exchange. Further studies should clarify whether an individualized approach to PS management based on potential predictors of early stent occlusion, such as positive bile cultures at index ERCP can improve patient outcomes.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP552 Performance of endoscopic approaches for Zenker diverticulum management: a systematic review and meta-analysis

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Aims Zenker's diverticulum is associated with a significant burden on quality of life and morbidity, predisposing to dysphagia, regurgitation and aspiration pneumonia. Surgery has been the preferred option historically due to a lack of alternative options but remains invasive with major potential complications. Endoscopic approaches offer a minimally invasive alternative treatment option including rigid and flexible diverticulotomy, and the emerging Zenker per-oral endoscopic myotomy (Z-POEM). This systematic review and meta-analysis aimed to summarize the efficacy and safety of these endoscopic techniques.

Methods A systematic search in Medline, Cochrane and Scopus databases was performed until November 2023. The primary outcome was technical success, defined as the completion of diverticulotomy/myotomy in one session. Secondary outcomes included clinical success which corresponded to the complete resolution of dysphagia or a post-procedure Dakkak and Bennett score ≤ 1. Moreover, the recurrence rates and the overall adverse events were recorded. Subgroup analyses per outcome were performed to discriminate the results depending on the endoscopic approach (Rigid, flexible diverticulotomy and Z-POEM), whereas the comparative studies were meta-analyzed to compare Z-POEM with alternatives. We used a random effects model and the results were reported as percentages for pooled rates and odds ratios (OR) for comparative data with 95 % Confidence Intervals (95 % CIs).

Results Twenty-three studies (1357 patients; 40 % female; mean age 43-80) were included in our analysis. The cumulative technical success rate was 97.7 % (95 % CI:96.9-98.5) with null heterogeneity (I^2 = 0 %), and this outcome was preserved in all subgroups. Considering clinical success, the overall pooled rate was 84.8 % (95 % CI:80.8-88.8;I^2 = 79.15 %) with Z-POEM yielding higher rate [90.4 %(95 % CI:87.8-93.1)] with low heterogeneity (I^2 = 11 %), in contrast to the alternatives. 8.6 % (95 % CI:6.0-11.3;I^2:63.6 %) of cases experienced recurrence, with those post-Z-POEM having the lowest rates [5.7 %(95 % CI:2.3-9.1;I^2:55.68 %)] and post-flexible myotomy the highest ones [12.1 %(95 % CI:8.0-16.2;I^2 = 36.09 %)]. Finally, complications occurred in 8.7 % (95 % CI:6.0-11.4; I2 = 78.08 %) with no changes in subgroup analysis. Technical success and recurrence rates were similar between Z-POEM and alternatives [OR:1.38 (95 % CI: 0.59-3.23, p = 0.5; I2 = 0 %) and OR:0.69 (95 % CI: 0.29-1.51, p = 0.39; I^2 = 48.71 %), respectively], whereas Z-POEM achieved higher clinical success rates [OR:2.38 (95 % CI: 1.54-3.68, p < 0.001; I^2 = 0 %)].

Conclusions Endoscopic treatment offers high technical success and symptom resolution in patients with Zenker diverticulum, with relatively low prevalence of adverse events and recurrence. Z-POEM offers higher clinical success rates compared to alternatives with optimal homogeneity.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP553 Endocopic electroporation, first experience in a german endoscopy center

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Aims Presentation of endoscopic electroporation treatment as apalliative treatment option for obstructive esophageal carcinoma.

Pulsed electric fields or electroporation offers potentially a safe and effective option in the management of gastrointestinal tract cancers. Unlike traditional thermal ablation technologies, it does not rely on heat but rather creates nano-sized pores on the cell membrane, disrupting cellular function and triggering cell death. Uniquely, the extracellular matrix remains intact, thus preserving healthy tissue structures and reducing issues around application to the margins or risk of causing perforation. This cell death process can be accelerated further through the prior intratumoral injection of calcium. A number of gastrointestinal clinical studies have been completed with the EndoVE device, and we report here on its use for obstructive, stenotic esophageal carcinoma.

Methods An 85-year-old female patient presented with a bolus obstruction in the esophagus. After endoscopic foreign body removal, a long distalesophageal carcinoma was revealed. Histologically, an adenocarcinomawas confirmed. The imaging diagnostics showed at least a T3N + MX stage (UICC III). Due to the previous heart and kidney disease, endoscopic EndoVE treatment was carried out in interdisciplinary coordination and with the patient consent. Endoscopic electroporation was performed in several sessions after direct administration of calcium gluconate into the tumor tissue.

Results The patients received the described endoscopic electroporation therapy at regular intervals of 3-4 weeks for approximately 1 year. During this period there were no obstructive symptoms and oral feeding with mushy food was consistently without any complications. There were also no relevant complications associated with this therapy. [1–3]

Conclusions Endoscopic EndoVE treatment could potentially offer a safe and effective option as part of palliative therapy for stenosing gastrointestinal tumor diseases. Comparative studies are still needed.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP554 Barriers against implementation of European Society of Gastrointestinal Endoscopy performance measures for colonoscopy in clinical practice

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Aims The implementation and monitoring of the European Society of Gastrointestinal Endoscopy (ESGE) performance measures for colonoscopy is suboptimal in clinical practice. Electronic reporting systems may play an important role in data retrieval. We aimed to define the possibility to systematically assess

and monitor ESGE performance measures for colonoscopy through reporting systems.

Methods We conducted a survey during a nationwide event on quality of colonoscopy held in Rome, Italy in March 2023 by a self-administered questionnaire. Analyses were conducted overall and by workplace setting.

Results The attendance was 93 % (M/F 67/26), with equal distribution of age groups, regions and public or private practice. Only about one third (34 %) and 21.5 % of participants stated their reporting system allows to retrieve all the ESGE performance measures, overall and as automatic retrieval, respectively. Only 66.7 % and 10.7 % of respondents can systematically report the cecal intubation and the adenoma detection rate, respectively. The analysis according to hospital setting revealed no significant difference for all the items.

Conclusions We found a generalized lack of systematic tracking of performance measures for colonoscopy due to underperforming reporting systems. Our results underline the need to update reporting systems, to monitor the quality of endoscopy practice in Italy. [1–5]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP555 The Clinical associations with dysplasia in Barrett's oesophagus in an Irish Endoscopy Population

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Aims Barrett's oesophagus is considered to be a precancerous condition and dysplasia detection and surveillance can lower the risk of Barrett'sassociated oesophageal adenocarcinoma. From a published European and North American cohort study, the estimated progression to adenocarcinoma in low grade dysplasia (LGD) is 0.54 % per year and in high grade dysplasia (HGD) is 4-8 % per year. Dysplasia now is treatable by endoscopy but rates in Ireland are unknown thus, we aimed to assess current incidence of dysplasia in patients attending the Irish endoscopy services and factors associated with presence of dysplastic change.

Methods This was a retrospective observational cohort study in a tertiary referral hospital. Data was collected from endoscopy software program and patient medical records. These data included age, gender, description at endoscopy, Prague Classification, length of Barrett's segment, presence of histological Barrett's, and presence/absence and grade of dysplasia. Data were analyzed using correlation , paired t-test and contingency analyses, Pvalue < 0.05 considered significant.

Results 208 patients with Barrett's ,66 female and 142 males, were detected in 2022-2023 period with a median age of 65 years old IQR 56-70 . Average length of Barrett's segments was < 3cm. Dysplasia was detected in 11 % (n = 19). Of these patients, 17 had LGD, 1 HGD, and 1 invasive esophagealadenocarcinoma. The data showed that there is a correlation between the length of segment and dysplasia (68.4 % of the patients with dysplasia have > 3cm length segment, . P value of 0.002).Older age is significantly associated with dysplasia (Fishers exact test, P = 0.02) .Gender was not significantly associated with dysplasia though there were more males in the dysplasia cohort (p = 0.09).

Conclusions The incidence of Barretts dysplasia recorded n this cohort is higher than previously published data. There is an association between older age and length of Barrett's segment with presence of dysplasia ,however, gender didn't show significant association .There is a need for further analysis of persistence of dysplasia, prospective data collection , outcomes assessment and ongoing Barrett's registry for appropriate and early detection of dysplasia / malignancy. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP556 Management of early esophageal cancer – a register-based study in Sweden

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Aims Surgical resection has been the standard treatment for curable esophageal cancer. Endoscopic treatment has gradually emerged as an alternative for early esophageal cancer. This study aimed to investigate how early esophageal cancer has been treated in Sweden and what the outcome has been.

Methods A cohort study within the Swedish National Registry for Esophageal and Gastric Cancer (NREV) was used to identify all patients with early esophageal cancer defined as clinical stage T1N0M0 including also high-grade dysplasia (HGD) between 2006-2022. The register also provided information on age, sex, histopathology, and type of management. Included patients were followed until death or end of study period during which outcomes as complications and survival were calculated.

Results 20921 patients are included in the registry. 11217 of them are classified as esophageal cancer. 170 do not have any information of tumor classification and were thus excluded for further analysis. 10045 are classified as advanced cancer (T2-74). Patients classified as TX (1702) are also classified as advanced. 1002 (9.1 %) are classified as early cancer. The mean age in the early cancer group is 70 years. 79 % of the patients had early adenocarcinoma (EAC) and 21 % had early squamous cell carcinoma (ESCC). 175 patients had missing data of the type of management. 289 underwent endoscopic treatment, 213 underwent surgery and 325 patients were considered palliative or did not get any treatment. Complications within 30 days were more common in the surgical group, but mortality in association to the procedure was slightly higher in among the endoscopically treated (0.69 % vs 0.47 %). However, there was no significant statistical difference in overall survival.

Conclusions Early cancer accounts for 9.1 % of registered esophageal cancer cases and there is a potential for improvement to increase that percentage. We are also relatively poor at detecting ESCC compared to EAC. Although endoscopic treatment has become the standard treatment for early esophageal cancer, surgery still has a role in the treatment arsenal.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP557 Management strategies and outcomes in Peptic Ulcer Bleeding: Insights from a Retrospective Study at a Tertiary Care Hospital

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Aims Peptic ulcer bleeding (UGIB) may manifest with varying degrees of clinical severity, and its prognosis can be influenced by comorbidities. We aimed to evaluate clinical presentation and outcomes associated with the management of PUB.

Methods Retrospective evaluation of 146 consecutive patients admitted to a tertiary hospital with UGIB betweenJan2018-Dec2019.Clinical parameters,use of anti-platelets, anticoagulants, pre-endoscopic Rockall score(RS) and Glasgow Blatchford score(GBS)were evaluated.Time to endoscopy,ulcer characteristics, hemostatic techniques, duration of hospitalization and in-hospital mortality were also analyzed. Qualitative variables were expressed as percentages and compared with Chi-square test.Quantitative variables with non-normal distribution were expressed as median(min-max)and compared with Mann-Whitney test.

Results Median age was 71(18-97) years, with 107(73 %) males. At least one comorbidity was documented in 101 (69 %) patients: diabetes (n = 43; 29 %) and ischemic heart disease (n = 39; 27 %).Antiplatelet therapy was used in 47 cases(32 %), and anticoagulant therapy was in 34 (23 %) patients. At admission, 74 (51 %) patients had hemodynamic compromise, and 35 (24 %) required ICU admission. Pre-endoscopic median RS was 4(0-10), and GBS was 11(2-19). Early endoscopy (< 24h) was perfomed in 106(73 %) patients. The majority of PUB were in the bulbus (43;30 %), gastric antrum (38; 26 %) and gastric corpus (25;17 %).Endoscopic findings of PUB were: ForrestIIa-42(28 %),ForrestIII -34(23 %), ForrestIIb-21(14 %), Forrest Ia-11(8 %), ForrestIb-17(12 %).Endoscopic hemostasis was performed in 96(66 %) patients.Thermal methods were used in 58 (60 %), mechanical methods (TTSC/over-the-scope clip) in 26(27 %) and a combination of both in 9(9 %) patients.2 (2 %) patients received adrenalin alone and 1 received hemospray (1 %). There were no differences in the efficacy of the hemostatic methods. Second-look endoscopy was performed in 19(13 %) patients, and only 2 required additional hemostasis.Chronic respiratory disease was significantly associated with rebleeding and need for surgical hemostasis(p = 0.002).Surgery was performed in 9 patients (recurrent bleeding and failure of hemostasis with repeat endoscopy-5; transmural penetrating ulcer identified during index endoscopy-4).Gastric ulcer was associated with higher age(p = 0.009), heart failure(p = 0.03), chronic respiratory disease(p = 0.02), anticoagulant use(p < 0.006) and longer hospitalization (p = 0.032). Median duration of hospitalization was 6(1-106) days and in-hospital mortality was 16 (11 %). Cirrhosis (p = 0.030), and oncological disease (p = 0.003) were significantly associated with in-hospital mortality rates.

Conclusions Patients presenting with PUB have advanced age with majority being men. Comorbidities are observed in more than 2/3 of patients. Gastric PUB was associated with higher age, chronic respiratory disease, anticoagulant use, and longer hospitalization. Cirrhosis and oncological disease increased the in-hospital mortality risk.

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eP558 The UK experience of zenker per-oral endoscopic myotomy (z-poem) for the treatment of zenker's diverticulum

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Aims A Zenker diverticulum (ZD) is an acquired sac-like outpouching of the mucosa and submucosa that occurs at the pharyngo-oesophageal junction. When symptomatic, it is characterised by oropharyngeal dysphagia and regurgitation. It tends to present in older patients with multiple co-morbidities, so optimising intervention is vital. Conventionally, they are treated by a surgical approach, which is effective but carries morbidity. Zenker peroral endoscopic myotomy (Z-POEM) is a novel endoscopic strategy predominantly performed by gastroenterologists that involves submucosal dissection either side of the muscular bar to enable a more precise and complete myotomy. We conducted a UK-based multi-centre retrospective cohort study to assess the safety and efficacy of Z-POEM for the management of ZD.

Methods Patients undergoing Z-POEM were retrospectively analysed from three UK tertiary referral centres between November 2020 to November 2023. Patient demographics, technical success, clinical success, and 30-day adverse events were all recorded. Technical success was defined as successful completion of all steps of the Z-POEM procedure. The primary outcome was clinical success, which was defined as a reduction in Dakkak and Bennett (DB) dysphagia score to ≤ 1 (or 0 if the pre-treatment score was 1) without the need for repeat intervention.

Results Among 47 patients who underwent Z-POEM the median age was 76 (IQR 72-80), 19 patients (40.4 %) were female, and the median Charlson comorbidity Index (CCI) was 3 (IQR 3-5). Pre-procedure, the mean pouch size by maximum depth or width was 39.0 mm (SD 15.3), 17 patients (36.2 %) had undergone previous treatment (open or rigid), and the median DB score was 2 (IQR 1-3). All procedures were performed under general anaesthetic. The mean procedural time was 49.9 minutes (SD 17.0), technical success was 100 %, and median inpatient stay one day (IQR 1). The median post-treatment DB score was 0 (IQR 0) with an overall clinic success of 83.7 % (95 % CI: 72.2-95.2) over a mean follow-up of 8.5 months (SD 6.6). Symptoms recurred on average at 4.9 months (SD 3.7) with four undergoing a repeat procedure with 75 % success rate. On logistical regression analysis, no variables predicted clinical success although a smaller pouch size trended towards significance (P = 0.069). There were three related adverse events (6.4 %), which included two post-procedural chest infections and one leak requiring prolonged admission.

Conclusions Our data demonstrates that Z-POEM is a quick, safe, and effective procedure for the endoscopic management of ZD. It is associated with high technical and clinical success, low rates of adverse events, and can be repeated in patients with recurrent symptoms. Z-POEM can be considered a first-line intervention for symptomatic ZD over surgery.

Conflicts of interest RH has received educational grants to support research infrastructure from Cook Medical, Odin Vision, Pentax Medical, Endogastric Solutions, Apollo Endosurgery, Medtronic, Aqua Medical

eP559 Review and comparison of EMR/ESD techniques in the rectum

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Aims Review and comparison of the management of complex polyps in the rectum, with advanced endoscopic techniques such as EMR and ESD, which lead to reduced morbidity, mortality, reducing the need for surgery.

Methods Systematic literature review of over 80 published reviews and meta-analysis of the management of advanced colonic/rectum neoplasia and compex polyps.

Results EMR is usually not successful for total removal of lesions larger than 20 mm in diameter, while segmental resection of larger lesions has been shown to be associated with a higher complication rate compared to ESD.

ESD is a reliable method for achieving en bloc resection of relatively large superficial neoplasms, with superior curability. ESD is used for the treatment of large rectocolic lesions and for any colorectal lesion suspected of turning into a very early invasive cancer. However, ESD is associated with technical difficulties and complications, including perforation. [1–27]

Conclusions Overall, the review conducted, highlights the need for a large randomized study to obtain unbiased results on the efficacy and safety of these two techniques in patients with large superficial neoplasms of the colon and rectum.

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eP560 Achalasia – the role of pneumatic balloon dilation in the era of POEM: a small, single-center retrospective study

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Aims The advent of interventional endoscopy has popularized peroral endoscopic myotomy (POEM) as a primary treatment for achalasia. However, in regions with less POEM accessibility, pneumatic balloon dilation (PD) remains the main alternative as endoscopic management. This study aims to assess the efficacy and safety of PD as a therapeutic intervention for achalasia in such regions.

Methods We conducted a retrospective analysis of patients diagnosed with type 1 and 2 achalasia over a 12-month period at a single center, where endoscopic PD was employed for treatment. The main endpoints included evaluating dilation efficacy using the initial and post-therapeutic Eckardt scores, the number of dilation sessions required per patient, and any associated complications.

Results Fourteen patients, evenly distributed between genders, with a mean age of 45 years, were included. Symptoms duration ranged from 3 months to 6 years before diagnosis. The median Eckardt score before dilation was 7 (range 6-8). A total of 29 PD procedures were performed, with a median of 2 per patient (range 1- 4), utilizing 30 and 35 mm balloons. The median procedure time was 7 minutes (range 5-15 minutes). Favorable outcomes were observed, with a drop in the Eckardt score to a median of 3 (range 2-5) at 3 months and no major complications post-endoscopic treatment, only self-limited bleedings.

Conclusions In regions where POEM is less available, PD remains a viable and accessible treatment for achalasia patients. The technique demonstrates a significant improvement in Eckardt scores (especially in the median term) and a good safety profile. Additionally, PD is more accessible and less time-consuming compared to the POEM procedure, which is limited to dedicated centers.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP561V Combination of tunneling and traction techniques for endoscopic submucosal dissection of a laterally spreading tumor in a ulcerative colitis patient

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Abstract Text A 56 years old ulcerative colitis patient, diagnosed with 50 mm Laterally Spreading Tumour – non Granular type in the descending colon, was scheduled for endoscopic submucosal dissection. Submucosal injection provided only a modest lifting of the lesion. After a partial mucosal incision on the anal side of the lesion with an electrosurgical knife, a submucosal tunnel up to the oral side was created. Afterwards a complete circumferential mucosal incision was performed. Submucosal dissection however was impaired by severe fibrosis, linked to chronic mucosal injury(1). Thus, the mucosal flap was tractionated using a clip and a rubber band to anchor it to the contralateral wall of the bowel. Afterward, the dissection plane was distinctly visible and submucosal dissection was carried out until "en-bloc" detachment of the lesion.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/de89680b-a05e-4b0e-b0c5-ec9f0b7e3462/Uploads/13821_ESD_RCU%20Esge.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP562 Combining a Computer Aided Detection system (CADe) and G-EYE balloon for adenoma detection in a FIT-based organized colorectal cancer screening program: preliminary results of a randomized controlled trial

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DOI 10.1055/s-0044-1783851

Aims Recent evidence shows that Computer Aided Detection (CADe) systems and mucosal-exposure devices might exert a synergic effect in adenoma detection during colonoscopy. We aimed at evaluating if the combination of CADe and GEYE balloon increases the adenoma detection in a fecal immunochemical test (FIT)-based colorectal cancer screening program.

Methods 50-74 years old FIT-positive subjects were randomized to undergo either CADe or CADe + GEYE colonoscopy, by accredited endoscopists. Main outcomes measures were the rate of “high-risk” subjects according to ESGE criteria (> 5 low risk adenoma, at least one adenoma with high-risk features, any serrated polyp ≥ 10 mm or with dysplasia), and the adenoma detection rate (ADR). According to previous studies, we planned to include 600 subjects.

Results Between May and October 2023, 188 subjects (61.8 ± 6.55 years old; 97 men) were collected. Of them 91 and 97 underwent CADe colonoscopy and CADe + GEYE colonoscopy, respectively. No significant differences in patients' features, cleansing level, insertion, overall withdrawal, and inspection time were observed across the two study groups. The rate of “high-risk” subjects after colonoscopy was 21.9 % (95 % CI: 14.0-31.8 %) and 21.6 % (95 % CI: 13.9-31.2 %) in those receiving CADe and CADe + GEYE colonoscopy, respectively. The ADR was 59.3 % (95 % CI: 48.5-69.5 %) and 58.8 % (95 % CI: 48.3-68.7 %) in CADe and CADe + GEYE colonoscopy respectively.

Conclusions Our preliminary data suggest that adding GEYE to CADe does not significantly increase the adenoma detection. These conclusions must be interpreted with caution since full data are awaited. However, we can hypothesize that a “ceiling effect” due to the high detection rate of lesions with CADe have marginalized the impact of mucosal-exposure device.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP563 Factors Associated with Pathologic Confirmation of Suspected Barrett's Esophagus during Upper Endoscopy

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DOI 10.1055/s-0044-1783852

Aims Upper endoscopy may be imperfect in its ability to accurately identify Barrett's esophagus (BE). This study explores specific patient and endoscopic characteristics impacting biopsy confirmation of BE.

Methods We conducted an observational, cross-sectional study in a tertiary care center in Mexico. Upper endoscopies with findings of suspected BE were included. Procedures without esophageal biopsies taken from the suspected area were excluded. Demographic data, comorbidities and specific factors of the endoscopic procedure were analyzed. A multivariate logistic regression model aimed to identify factors associated with improved diagnostic accuracy for BE during endoscopy.

Results Among 144 upper endoscopies, conducted in 98 patients, pathology confirmed BE in 77 %. Fifty-six percent of patients were males, and the population mean age was 61 ± 14. Unconfirming pathology was more frequent in men than women (66.6 vs 33.3 %, p 0.044). At the time of the endoscopy, 76.4 % were using proton pump inhibitors (PPIs), and 30.2 % had undergone fundoplication surgery. Thirteen patients (13.2 %) had been treated with radiofrequency ablation (RFA). Findings from 38 procedures performed without a prior BE diagnosis revealed 22 (57 %) pathology-confirmed BE, compared to 91 (85.8 %) in the 107 follow-up endoscopies (p 0.001). Multivariate regression identified long segment BE (OR 9.93; 95 % CI 2.074 to 17.654, P 0.004), hiatal hernia (OR 6.16; 95 % CI 1.098 to14.795, P 0.039), and follow up endoscopies (OR 0.170; 95 % CI 0.043 to 0.664, P 0.011) to be independently associated with biopsy-confirmed BE.

Forty-five cases had endoscopic findings suggestive of dysplasia, of which 15 (33 %) had pathology-confirmed dysplasia. As an exploratory sub analysis, the diagnostic accuracy of endoscopic findings suggestive of dysplasia was analyzed, finding a sensibility of 47 % and specificity of 71 % (PPV 16, NPV 92).

Conclusions Our findings suggest that negative biopsies after endoscopic detection of BE are not uncommon, especially on index endoscopies. This study also identifies patient and endoscopic characteristics that may influence confirmation of BE on biopsy. Findings of dysplasia during endoscopy have low sensibility and specificity for pathology confirmed dysplasia, underscoring the importance of biopsy protocols. While upper endoscopy remains crucial for BE detection, further research is needed to enhance accuracy. [1–3]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP564 Comparison of technical and clinical success of self expandeble metal stents (SEMS) in proximal vs left colonic malignant stenosis

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DOI 10.1055/s-0044-1783853

Aims to compare technical and clinical success of SEMS in proximal and left sided neoplastic colonic stenosis.

Methods retrospective single center study of patients with maligant colonic obstruction who underwent SEMS positioning. Cases were retrospectively reviewed recording information about age, gender, indication, technical success, clinical success, complications, follow-up length.

Results We identified 96 patients (59 % male, mean age 69 years) and116 SEMS placement during a 16 years period with at last 6 months of follow up.In all cases SEMS were used for treatment of malignant obstruction, mostly advanced colonic disease (IV stage disease), except for 2 cases of obstruction on the colon transversum from advanced gastric cancer.Indication for SEMS placement derived from clinical, endoscopic or radiological evidence of ileus or sub ileus. SEMS were positioned under direct and fluoroscopic guidance by endoscopists with experience in colon stenting.Malignant stenosis were more often located in the left colon (85, 73 %). The mean follow up was 6 months for proximal SEMS and 5 months for left SEMS.Technical success, defined as successful deployment of SEMS across the stenosis, was achieved in all cases (100 %).We defined clinical success as the relief from obstructive symptoms without need for further endoscopic treatment or surgery within 30 days from SEMS placement. Clinical success was achieved in 100 % of proximal stenosis and 98.2 % (1/85) of left sided stenosis. Only one patient presented a colonic perforation as early complication (< 30 days) after stenting of a discending colon stenosis. During follow up complications occurred in 29 % (25/85) of left stenosis and 25 % (6/24) of proximal stenosis; mean time from previous stent placement was 3 months for left SEMS and 4 months for proximal SEMS. The most frequent complication was prothesis dislocation, which occurred in 16 % (4/24) of proximal SEMS vs 13 % (11/85) of left sided SEMS. Prothesis obstruction occurred in 11 % (11/85) of distal SEMS vs 4 % (1/24) SEMS. Perforation occurred in 4.7 % (4/85) of distal SEMS vs 4.1 % (1/24) of proximal SEMS. After stent migration SEMS repositioning was indicated in 4.7 %(4/85) of left SEMS vs 16.6 % (4/24) of proximal SEMS. Stent in stent positioning was performed in 4 % (1/24) of proximal SEMS vs 10 % (9/85) of left SEMS, one patient required two consecutive stent in stent positioning. Surgical management of complications was required for 2.3 % of left SEMS (2/85) vs 4.1 % (1/24) of proximal SEMS respectively.

Conclusions SEMS is an affective treatment for obstructive colonic disease. Our series showed similar results in efficacy and safety for proximal and distal SEMS positioning. Proximal SEMS showed a lower rate of complications, which occurred later during follow up observation, requiring less rescue management.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP565V ERCP in Billroth II gastroenterostomy and Braun anastomosis: a new technique to access the papilla

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DOI 10.1055/s-0044-1783854

Abstract Text ERCP has 83 % success rate in Billroth II, but only 29 % in those with an additional Braun anastomosis. Five patients with Billroth II and Braun anastomosis were referred to our center with choledocholithiasis. In all cases the initial attempt to reach the papilla with the side-view scope alone was unsuccessful. The "clipped guidewire & balloon catheter" method involves a straight-view scope reaching the ampulla and a guidewire passing through the

scope; its proximal tip is then clipped with a TTS clip close to the papilla. The scope is withdrawn with a free guidewire being left in place. The side-viewing scope is inserted over this guidewire and a balloon catheter over the wire to stiffen it. The wire/catheter's presence greatly facilitates the intubation of the afferent loop and the optimal direction to reach the papilla, which was achieved in all 5 cases.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/b7c9bf35-7084-4c37-a898-53e20e798d84/Uploads/13821_ERCP_in%20Billroth%20II%20gastroenterostomy%20and%20Braun%20anastomosis.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP566 Endoscopic submucosal dissection for early gastrointestinal cancers in India: A retrospective analysis of a single-center experience for clinical outcomes and future directions

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Aims Our aim is to identify the success rate of endoscopic submucosal dissection (ESD) in early gastrointestinal cancers. The success of ESD is identified using R0 resection and Enbloc dissection for various early gastrointestinal cancers and to report the finding of our experience with ESD from India.

Methods ESD was performed for patients with suspected Early GI cancers who fulfilled the criteria for resection. Curative resection and R0 resection was calculated after excluding submucosal lesion (Neuroendocrine tumors & spindle cell lesions)

Results Total 117 lesions were resected in 115 patients, 18(15.3 %) were in esophagus, 24 (20.5 %) in stomach, 26 (22.2 %) in duodenum and 49 (41.8 %) were present in colon. Mean size of lesion was 2.7 + -1.6cm in esophagus, 2.87 ± 1.18cm in stomach, 1.48 ± 0.3cm in duodenum,3.63 ± 1.98cm in colon with enbloc resection in each being 100 %, 83.33 %, 99.2 %, 81.8 % respectively. Overall Enbloc resection rate was 91.07 %. Overall Curative resection & R0 resection was found to be 96.35 % and 94.8 % respectively in total 81 lesions. Individual R0 and Curative resection in each region were- Oesophagus-100 %, 100 %; stomach- 100 %, 93.75 %; Duodenum-100 %, 100 %; colon- 79.2 %, 91.66 %.

Conclusions The study provides valuable insight into outcomes of ESD in India for early GI cancers being minimally invasive yet potentially curative therapeutic option guiding us to incorporate ESD as a standard of care in Indian guidelines for management of early GI cancers. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP567 Endoscopy in Pregnancy: Is it safe ?

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DOI 10.1055/s-0044-1783856

Aims Gastrointestinal endoscopy has a major diagnostic and therapeutic role in most gastrointestinal disorders. The safety and efficacy of GI endoscopy in pregnant patients is not well-studied. The aim of our study is to evaluate the safety of endoscopic procedures in pregnant patients along with maternal and fetal outcomes.

Methods This was a retrospective study conducted at the Mohamed VI University Hospital after Ethics review committee approval. The medical records of all pregnant patients who underwent endoscopy during pregnancy from November 2019 to November 2023 were analyzed. Data regarding the indications and type of endoscopic procedure, use of sedation were noted as well as data on any complications during or after pregnancy.

Results We collected 32 patients who underwent endoscopic procedures. The mean gestational age at the time of procedure was 13 weeks (range 7-33 weeks) Procedures that were performed included gastroscopy (n: 22), sigmoidoscopy (n: 8) , colonoscopy (n : 4). The major indication for gastroscopy was hematemesis in 16 procedures (50 %), caustic ingestion in 3 patients (9,3 %), foreign body ingestion in 2 procedures (6,2 %) and screening for esophageal varices was done in 5 (15,6 %). The main indication for sigmoidoscopy was Ulcerative colitis flare up in 5 patients (15,6 %), Crohn's disease flare up in 2 patients (6,2 %), However, bleeding per rectum in was the main indication of colonoscopy in our study. Most procedures (90.62 %) were diagnostic and the rest were therapeutic. Our patients were mostly in their second trimester and only two patients had a miscarriage. One patient has undergone a medical termination of pregnancy in order to start chemotherapy for a colonic metastatic tumor.

Conclusions There is limited data available regarding safety of endoscopy in pregnancy reported worldwide. Though the safety of GI endoscopy is well established for general population, they are generally without risk for pregnant patients in the presence of strong valid indications. However, further prospective multicenter research studies are strongly recommended.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP568 Does anxiety impact the patients' tolerance of Endoscopic Procedures ?

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Aims Endoscopic examination, like colonoscopy and Esophagogastroduodenoscopy (EGDS), are frequently used to diagnose and treat many gastro intestinal diseases nevertheless they can have adverse psychological effects like anxiety. The aim of our study is to assess the effective impact of endoscopic examination on anxiety levels of patients, and look for associations between levels of state and trait anxiety in order to identify people most at risk of not tolerating the endoscopic procedure.

Methods We recruited 150 patients waiting to undergo endoscopic examination. Patients whose physical, sensory, psychiatric or cognitive status prevented assessment by questionnaire, and those who had undergone FOGD for therapeutic purposes, were excluded from the study. Anxiety was assessed before and after the examination using the Visual Analogue Scale (VAS). Three groups of patients were defined: a 1st group with no anxiety (VAS = 0), a 2nd with a low level of anxiety (VAS:1 to 5) and a 3rd with a high level of anxiety (VAS 6 to 10). Endoscopy acceptability was defined as the willingness to repeat the examination under the same conditions and without sedation if the indication arose.

Results The mean age was 39.5 (16-69 years). The sex ratio (M/F) was 1,7. 168 procedures were performed including upper and lower gastro intestinal endoscopy All of which were carried out without sedation. Overall acceptability in our series was 48 %. The mean VAS of anxious patients (2nd and 3rd group) before the examination was 6.2. The acceptability of patients in the first group (VAS ≤ 5) and the second group (VAS > 5) was 57.3 % and 26.7 % respectively. The mean VAS of patients who agreed to repeat the examination under the same conditions was 3.24 versus 7.18 for patients who refused. The more anxious patients were before the examination, the less likely they were to agree to

repeat the examination under the same conditions. During the endoscopic examination, anxiety was also a determining factor and negatively influenced patient acceptability. The mean VAS of patients who refused to repeat the examination under the same conditions was 6.12, compared with 2.53 for patients who accepted. In our study, the acceptability of anxious men was higher than that of anxious women. The highest levels of anxiety can be seen in patients who undergo the examination in the presence of a specific symptom, rather than as a screening.

Conclusions Anxiety before and during an examination has a negative influence on the acceptability of unsedated endoscopy, which is inversely correlated with the degree of anxiety. The acceptability and tolerance of endoscopy could be improved by explanations given by the operator before the examination, and by reducing the waiting time.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP569 Unusual endoscopic foreign body removal from duodenum in a psychiatric patient

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DOI 10.1055/s-0044-1783858

Abstract Text The ingestion of foreign bodies occurs frequently in patients with psychiatric disorders and mental deficiencies. We present the case of a 25-year-old male patient suffering from severe mental deficiency and autism who swallowed a large spherical-shaped object. An upper gastrointestinal endoscopy was performed, identifying an Orbeez toy containing water-absorbent polymer beads located in the second portion of the duodenum. An initial attempt to remove it with a grasper was followed by its incidental puncture, thus revealing a rubber outer layer that was housing numerous small colored beads. Some of the beads were removed using an endoscopic retrieval net, after which the rubber exterior was removed with a grasper. The remaining beads were either washed down or removed by the otolaryngologist and anesthesia teams. Consequently, the patient was discharged in good condition.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP570V Endoscopic management of synchronous biliary and duodenal malignant obstruction

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DOI 10.1055/s-0044-1783859

Abstract Text We present a case of simultaneous, tight, malignant biliary and duodenal obstruction secondary to an infiltrative head of pancreas cancer in a 42-year-old female patient. A cannula with a guidewire traversed the duodenal stricture/mass and then a duodenal metal stent was deployed over the wire. Balloon dilatation of the duodenum in steps (12/13.5/15mm) was performed, allowing for a duodenoscope to traverse it. The papilla was identified amid malignant tissue and biliary cannulation through the duodenal stent was achieved with sphincterotome and guidewire. Over the biliary guidewire CRE balloon dilatation in steps (8/9/10mm) was performed, thus expanding the duodenal stent scaffold and allowing for a biliary fully covered metal stent to be deployed, crossing the duodenal stent. Excellent biliary drainage was achieved.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/96a7da90-20a1-46e9-9fdb-530b3adc7c2a/Uploads/13821_Endoscopic_management%20of%20synchronous%20biliary%20and%20duodenal%20malig....mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP571 Non granular and granular mixed Laterally Spreading Tumor: where submucosal invasion lies beneath

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Aims Current guidelines suggest that colorectal laterally spreading tumors (LSTs) with stigmata of superficial submucosal invasion (SMI) should be treated with en bloc endoscopic submucosal dissection (ESD). Since prediction of SMI risk is still challenging, in this study we evaluated which endoscopic features associated with presence of SMI in LSTs.

Methods In this monocentric retrospective study, we included all patients with resected LSTs between January 2018 and November 2023. Lesions were classified according to morphology into granular (G), granular mixed (GM) and non granular (NG) phenotype. Paris Classification, Kudo pit Pattern, location and lesion diameter were evaluated as predictors of SMI. Univariate and multivariate logistic regression analysis was performed to assess predictors of SMI.

Results Overall, 459 lesions were analyzed: n = 172 NG-LST (37,5 %), n = 172 GM-LST (37,5 %) and n = 115 G-LST (25 %). Superficial SMI was detected in 35 NG-LSTs (20,3 %) , 21 GM-LSTs (12,2 %) and 4 G-LSTs (3,5 %). In the NG-LST group the prevalence of SMI was non-significantly higher in distal compared to proximal colon (24,5 % vs 17 % , OR = 1.59 [0.70-3.62] p = 0.27). According to Paris classification, the risk of SMI was significantly higher in depressed NG-LSTs (Paris IIc- IIa + IIc) compared to non-depressed lesions (31 % vs. 12 %, OR = 3.62 [1.59-8.26]; p = 0.002).

In GM-LSTs cohort, a not significantly higher SMI prevalence was reported comparing distal with proximal lesions (12,5 % vs 5,9 %, OR = 2,26 [0.61-8.30] p = 0.22), whereas rectal lesions showed significant higher risk than proximal lesions (22,9 % vs 5,9 %, OR = 5.87 [1.94-17.73]; p = 0.002). Kudo pit pattern Vi lesions in comparison to Kudo pit pattern IIIs/IIIL/IV lesions showed a significantly higher SMI prevalence both in NG-LSTs (32 % vs. 2 %, OR = 36.57 [4.80-278.60]; p < 0.001) and in GM-LSTs (73 % vs 5 %, OR = 40.36 [11.96-136.18]; p < 0.001). Besides, in GM-LST group a lesion diameter ≥ 4 cm was associated with higher SMI prevalence only in rectal lesions (40 % vs 5 %, OR 11.33 [1.33-96.81]; p = 0.03).

At the multivariate analysis, independent predictors of SMI presence were Kudo pit pattern Vi (OR 35.02 [4.31-284.85] p < 0,001) in NG-LSTs, and Kudo pit pattern Vi (OR 74.15 [14.08-390.43], p < 0.001) and rectal lesions (OR 13.45 [2.00- 90.25], p = 0,007) in GM-LSTs.

Conclusions Our study confirmed that NG-LST lesions deliver a higher overall risk of SMI than GM-LSTs and G-LSTs, independently on the location. GM-LSTs carried an intermediate risk of SMI and, considering only rectal lesions, size was an important risk factor for SMI. Furthermore, the Kudo pit pattern was an independent risk factor for SMI in both groups. As a consequence, our study stresses that a proper optical diagnosis is paramount in order to stratify SMI risk and choose the appropriate treatment for these lesions.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP572 Can green endoscopy be implemented in Romania? – Results of a single-center survey

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DOI 10.1055/s-0044-1783861

Aims Climate change and its impact on the environment are matters of high concern. Thus, we aimed to assess the real-life perception of the European recommendations for environmental sustainability in endoscopy in a tertiary-care center in Romania.

Methods We included medical personnel from a tertiary-care center in North-Eastern Romania. An online survey was developed, that included the statements from the latest British Society of Gastroenterology (BSG), Joint Accreditation Group (JAG), and Centre for Sustainable Health (CSH) joint consensus on practical measures for environmental sustainability, and the participants were invited to state their level of agreement. The results were collected confidentially and analyzed.

Results There were 29 participants, aged 36.9 ± 8.17 years old, mostly women (42.5 %). Among the respondents 11 were senior gastroenterologists, 6 were junior gastroenterologists, 8 were residents, and 4 were endoscopy nurses. Most participants agreed that endoscopy was an important source of waste (65.5 %) and that measures are needed to reduce the negative impact of endoscopy on the environment (62 %). Concerning the need for strict adherence to professional guidelines when considering the indication for endoscopy 44.8 % of the respondents strongly agreed while 34.5 % agreed. Sustainable alternatives to conventional diagnostic endoscopy were favored however by only 48 % of the respondents while 27.6 % strongly disagreed. Trainee involvement based on methods including simulation and online image libraries was mostly disagreed upon (51.7 %). All participants agreed that both upper and lower digestive endoscopies should be grouped on the same day and 86.2 % of the respondents considered that the use of single-use endoscopes should be restricted to select indications. Most participants agreed that the judicious use of sterile water is necessary to reduce the impact on the environment as well as the minimization of histopathology use. With one exception, all respondents agreed that endoscopy accessories should be carefully considered and planned pre-procedure to minimize waste. However, most participants did not agree with the proposed low-flow devices on water taps. All participants agreed that heating, ventilation, and air conditioning would be turned off when endoscopy rooms were not in use. Over 70 % agreed that patients should bring their cups to the hospital. However, only 25 % considered that alternative investigations would eventually replace endoscopy. Concerning the implementation of these measures, only 34 % agreed that they were already implemented in Romania, while over 50 % considered that they could be implemented in our country.

Conclusions All in all, most of the proposed measures for environmental sustainability in endoscopy were agreed upon by the participants. There was however disagreement concerning the replacement of endoscopy by alternative investigations as well as the use of methods other than endoscopy for trainees to reduce the number of procedures.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP573 Efficacy and safety of Peroral endoscopic myotomy in the management of achalasia cardia in elderly individuals

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DOI 10.1055/s-0044-1783862

Aims In elderly, invasive treatment modalities are less often preferred due to comorbidities and risk associated with general anaesthesia. Our aim is to assess the efficacy and safety of POEM procedure in elderly patient of achalasia in whom this data is scarce.

Methods During the 2 year of the study period from 2022 to 2023, 455 patient underwent POEM procedure in our Institute out of which 64 elderly (>65years) patients presented with achalasia cardia who underwent POEM were retrospectively collected. Eckardt score, Lower oesophageal sprinter (LES) pressure, procedural data and procedural-related complications were used to evaluate the outcomes of the procedure.

Results The mean age of the population was 70.89 years. The preprocedural mean Eckardt score was 8 ± 1.68 and the mean LES pressure preprocedure was 28.31 ± 14.5 mm of Hg. The technical success of POEM procedure was 100 % even thought submucosal fibrosis was noted in some patient especially those who underwent other treatment prior to POEM. The mean length of myotomy performed was 9.6 ± 3.63 cm and mean procedural time was 50.88 ± 2.1 minutes. The periprocedural compliacaltion were similar to the non elderly group, there were no severe adverse event with 9 patient devloping pneumoperitoneum during the procedure which was conservatievely managed. The mean post procedural Eckardt score was 0.21 ± 0.47 and the mean post procedural LES pressure was 7.5 ± 2.1 mm of Hg.

Conclusions POEM is safe and effective procedure in the treatment of elderly patient with achalasia cardia.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP574 A rare case of melena: Ampullary Hemangioma

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Abstract Text A 64-years old female patient presented to the emergency department with melena and a drop in hemoglobin to 64mg/dl. After resuscitation, a gastroscopy was performed revealing a smooth atypical hemorrhagic mass protruding from the ampulla. Biopsies were obtained but were non-diagnostic. Due to the ongoing melena and lack of pathological diagnosis, the option of surgical biopsy and ampullectomy was offered and was preferred by the family. Computed tomography was performed and confirmed a 3.5 cm non-metastatic ampullary mass. The patient underwent un-eventful surgical ampullectomy. The final pathology was confirmatory for ampullary hemangioma. Ampullary Hemangioma are rare benign vascular tumor and can present with melena. Endoscopic hemostasis is challenging in those rare conditions and usually requires surgical resection.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP575 Cancer characteristics in Lynch syndrome: a retrospective study in a large cohort of patients

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Aims Lynch syndrome (LS) is an inherited cancer syndrome associated with specific DNA mismatch repair (MMR) defects, accounting for a high risk of developing gastrointestinal (GI) and extra-GI cancers. The aim of this study is to comprehensively analyze the clinical and genetic features of a large cohort of LS patients focusing on mutation profiles and the distribution of GI cancers, including extra-GI ones.

Methods We performed a retrospective analysis of LS patients followed at our center, from 2000 to 2023. MMR mutation distribution, demographic data, and cancer distribution were analyzed.

Results 57 patients (28 males, 49.1 %) with a mean age of 63.5 years (range 21-91) were included with a mean follow-up of 20.8 years/patient. MMR mutations were available in 44 patients, distributed as follows: MLH1, 25 (43.8 %); MSH2, 9 (15.7 %); MSH6, 4 (7 %); MSH2-MSH6, 4 (7 %); MSH2-PMS2, 1 (1.7 %); MLH1-PSM2, 1 (1.7 %); 13 patients met Amsterdam II clinical criteria.
41 patients (71.9 %) developed cancer, with a mean age of 43 years (range 21-62) at the first onset. GI cancer was the first neoplasm to be diagnosed in 87.8 % of these patients. 16 patients remained cancer-free until evaluation, with a mean age of 51 years.

Overall, 36 of 41 patients developed 68 GI cancers, including 27 metachronous cancers (mean age at first onset, 43.6 years [range 21-62]): colon 52 (76.4 %), small bowel 10 (14.7 %), rectum 3 (4.4 %), and stomach 3 (4.4 %). Regarding the first colon cancer, considering the entire population, the right colon was most affected (63.3 %), primarily associated with MLH1 mutations (12/19 cases). The left colon was affected in 16.6 %, with MSH2-MSH6 and MLH1 as the most frequent mutations. Almost half of surgically-treated colon cancers (46 %) had pT3N0M0 staging. Only 3/41 patients developed metastases with an average follow-up time of 36 years since the first tumor. Metachronous GI cancers occurred in 18 patients, with a 12.5-year interval from the first tumor onset. MLH1 was the most frequently involved mutation (38.8 %).

Extra-GI cancers occurred in 26 patients, uterus (28 %) and breast (24 %) being the most common sites. MLH1 was the most frequently involved mutation (52 %).

8 patients (13.8 %) died at a mean age of 75.5 years (range 64-91) with a median follow-up of 26.75 years/patient. Causes of death included metastatic colon cancer (2/8), jejunal cancer (1/8), extra-GI cancer (3/8), multiple tumors (1/8) and cardiovascular disease (1/8).

Conclusions Our study confirms the tendency of LS patients to develop early-onset cancers, especially in the GI tract which is the most affected site of first tumor onset, with a considerable cancer-related mortality. MLH1 is the most involved mutation in both GI and extra-GI cancers.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP576 A real-time comparative study of CADx and sizing devices for colorectal polyps during colonoscopy: A total solution to implement resect and discard strategy?

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Aims Despite resect and discard strategy being recommended by multiple GI societies, it has not been widely implemented. One of the major barriers has been the lack of available technology for accurately predicting polyp histology and size. The aim of this study was to compare two commercially available AI systems for prediction of polyp histology (CADx) and size.

Methods Patients having screening/surveillance colonoscopies were recruited into the study. The two AI platforms used in the study were WISEVISION (CADx and computer-aided sizing) from NEC, Japan and CAD-EYE (CADx) + SCALE-EYE (laser-guided sizing) from FUJIFILM. Two expert endoscopists were present in the room and both AI platforms were used simultaneously with outcomes projected on two separate screens. Ground truth for CADx was histology. Sizing ground truth was established by two experts using measuring devices like biopsy forceps or snares.

Results 122 polyps from 36 consecutive colonoscopies were included. Of them, 60 (49.2 %) were diminutive and 62 non-diminutive. 42 (34.4 %) were rectosigmoid and 80 non-rectosigmoid. 95 (77.9 %) were flat while 27 were polypoidal.

CADe and CADx performance: All polyps were detected on both platforms. For WISEVISION, the sensitivity, specificity and accuracy of CADx to diagnose adenomatous polyps were 91.43 %, 80.77 % and 86.89 %. Those for CAD-EYE were 89.55 %, 75.51 % and 83.62 %. Those of expert's optical diagnosis were 94.92 %, 90.38 % and 92.62 %. There is no statistical difference in any performance parameter between the two systems and also in sensitivity between experts and any of the two AI systems.

Sizing performance: For computer-guided sizing with WISEVISION, the sensitivity, specificity and accuracy to size as diminutive polyps were 85 %, 88.71 % and 86.89 %. When using laser-guided sizing with SCALE-EYE, there was a failure rate of 7.02 % and the performance is 88.33 %, 82.26 % and 85.25 % respectively. There is no statistical difference between the two systems.

Conclusions This is the first ever real-time comparative study between two different AI systems on same polyps for CADx and sizing. Our study demonstrates that the sensitivity of both CADx systems is similar and as good as experts. However, specificity of both AI systems is lower than that of experts suggesting that if these were used for resect & discard and diagnose & leave strategy, slightly more hyperplastic polyps might get resected as compared to experts.

Conflicts of interest Professor Bhandari has received research grants or is the advisory board for Fujifilm, Boston, Olympus, Pentax, 3-D matrix, NEC (Japan), Medtronic.

eP577 Prospective study of Prucalopride's Influence on Gastrointestinal Transit Times and Completeness of Examinations in Colon Capsule Endoscopy

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Aims This study aimed to investigate the impact of Prucalopride, a prokinetic medication, on gastrointestinal transit times in individuals undergoing colon capsule endoscopy.

Methods Conducted from April 15 to November 1, 2023, the study included 100 participants who were stratified into two groups: Group A received Prucalopride after the capsule entered the small intestine, while Group B served as control without Prucalopride exposure.

The study's primary objective was to identify the differences between the average gastrointestinal transit times of the two groups and assess the rate of incomplete examinations. Statistical analysis was performed using independent samples t-tests for transit times and a Chi-square test for incomplete exams.

Results Group A, comprising 37 males and 13 females, showed an average age of 50 years and a BMI of 27.42. Group B, with 35 males and 15 females, had an average age of 44 years and a BMI of 24.67.

The results of the comprehensive examination of Group A and Group B indicate that the average duration of stomach, small intestine and large intestine transit was 53 vs 58 (SD = 35 vs 45), 83 vs 102 (SD = 55 vs 68) and 189 vs 252 (SD = 168 vs 269) mins, respectively, and the total examination time was 325 vs 410 (SD = 163 vs 283) minutes. There was no significant difference between the two groups regarding stomach and large intestine transit time ($p = 0.4$ and 0.13). However, the results indicate a statistically significant difference in small intestine and total examination transit time between the two groups ($p = 0.02$ and 0.01). Group A had decrease in the mean number of incomplete cases in comparison to Group B (1 vs 6 instances, $p = 0.05$).

The group that received Prucalopride did not experience any notable adverse effects. Two cases of mild side effects, including nausea and vomiting were documented, and in one case, the use of NSAID was required to alleviate a headache.

Conclusions In conclusion, Prucalopride administration during colon capsule endoscopy reduced the number of incomplete examinations significantly and influenced gastrointestinal transit times positively. This comprehensive analysis highlights Prucalopride's potential as a prudent therapeutic intervention to enhance diagnostic accuracy and improve patient outcomes during colon capsule examinations.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP578 ESD for proximal colonic lesions: a safe and effective therapeutic option

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Aims Endoscopic submucosal dissection (ESD) is the standard of treatment for rectal lesions due to the high risk of submucosal invasion. On the other hand, for proximal lesions is not widely adopted due to the very low risk of submucosal invasion and the technical challenges of the approach. Aim of our study was to assess technical and clinical outcome of patients treated by ESD for lesions located proximally to the splenic flexure.

Methods All consecutive ESD and Hybrid ESD from 2012 to 2023 for lesions proximal to splenic flexure were extracted from our prospectively maintained registry of colorectal ESD. Primary outcome was the completeness of resection based on en bloc and R0 resection rates. The secondary outcomes were histology, complications and hospital stay. For patients who underwent surgery after endoscopic resection the residual disease on the histologic specimen was also evaluated.

Results The sample was composed of 116 endoscopic dissections (57 conventional and 59 Hybrid ESD) performed in the proximal colon (19.82 % cecum, 1.72 % ileocecal valve, 43.96 % ascending colon, 17.24 % right flexure, 17.24 % transverse). The primary outcome was achieved in 94.73 % of classic ESD and 71.18 % of hybrid-ESD with en-bloc resection in 96/116 patients (82.76 %). Intraprocedural complications reported were bleeding (3.45 %) and perforation (9.48 %). Delayed complications observed were PECS (4.31 %) and bleeding (1.72 %). The median hospital stay was 1.63 ± 1.09 days; no perforations occurred. The histologic analysis showed that 25.21 % of samples were adenocarcinoma (G1-G2 86.66 %), 40.0 % low grade dysplasia and 33.91 % high grade dysplasia. Lateral and deep margins were involved by dysplasia in 14.29 % and 7.08 % of samples, respectively. Features associated with high risk of lymph nodes dissemination, like vascular invasion and depth sm2-sm3 were 6.67 % and 40.74 %, respectively. Further surgery for oncological reasons was performed in 9.4 % patients (11/116) and only 1 patient presented residual disease on the surgical sample; in this patient the procedure was considered unsuccessful due to non-en-bloc dissection. No positive lymph nodes were found in any surgical patient. In multivariate analysis only the size of the lesion correlates with the completeness of resection (R0 if size < 40 mm, OR 0.45 [0.22-0.83], p = 0.03). Data of 3-year follow up were available for 21 patients and only one presented delayed recurrence. Data of 1-year follow-up were available for 38 patients and 4 of them presented recurrence (2 had deep margins involvement and 3 over 4 had high-grade dysplasia).

Conclusions ESD and hybrid ESD is feasible for high-risk for proximal colonic lesions and allow the achievement of high rate of complete resection, mostly en-bloc, with acceptable balance between advantage and complications. Data from surgery samples and follow-up suggest the possible value as a curative technique also in patients with high-risk histological features.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP579 A simple and quick solution for Buried Bumper Syndrome – a case series using the balloon assisted extraction method

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Aims Percutaneous endoscopic gastrostomy (PEG) is a simple, safe and widely used method for feeding seriously and/or chronically ill people with swallowing problems. Long-term use of PEG with a hard internal holding disc and too tight fixation can lead to buried bumper syndrome (BBS) in approximately 0.3-2.4 % of cases. Several methods to treat BBS some with dedicated, expensive tools have been published [1] The ballon- assisted technique to treat BBS first described by Strocke and Weber 2005 is a simple, safe and fast method with low cost tools available in every endoscopy unit. The aim was to evaluate success in the treatment of BBS in a series of cases.

Methods Retrospective analysis of patient records between 01/2015 to 11/2023 for treated BBS in a tertiary referral center in Switzerland. The balloon assisted technique comprises placement of a guidewire through the remaining lumen of the PEG into the stomach. The tip of the wire is grasped and pulled through the working channel of the scope. The wire is used to insert a regular 16-18mm oesophageal dilatation balloon along the wire into the gastrostomy lumen up to a third of balloon length. The balloon is inflated and traction of the balloon and the endoscope allows the extraction of the bumper into stomach.

Results 13 Patients were treated for BBS with the balloon assisted technique (median age 74 + /- 20.5) years, 85 % male, 92 % neurological disease, mean ASA score 3, mean time between PEG insertion and development of BBS 3 years. 46 % of patients showed complete BBS without remaining opening on the gastric side. Technical success was achieved in 92.3 %, with no adverse events. One patient needed required surgery as the bumper was not removable with the balloon extraction and conventional techniques. In two cases a needle knife was additionally used to open the gastric tissue over the bumper[HHS1] .
Cases removed using conventional techniques were performed in ITN in an inpatient setting (n = 2) Procedure time with the dilatation balloon method was significantly lower. (70 mins vs. 35 mins) All BBS treated successfully with the balloon extraction method were performed on an outpatient basis.

Conclusions The use of the balloon extraction technique is a safe, quick and cost effective way to treat BBS in a multimorbid patient collective.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP580 The Efficacy of Pancreatic Duct Stent in Reducing the Risk of Post Endoscopic Retrograde Cholangiopancreatography Pancreatitis in Double-Guidewire Cannulation: A propensity-score matched case-control study

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Aims When faced with challenging cannulation, double wire technique (DWT) is a helpful method that aids biliary access. However, pancreatic ductal manipulation increases risk of post ERCP pancreatitis (PEP) and the number of pancreatic wire cannulations that warrant pancreatic duct stent (PDS) placement remain unclear. This study aimed to compare the risk of PEP between conventional single-wire cannulation and DWT. The secondary aim was to assess efficacy of PDS when DWT was used, particularly in centers where rectal indomethacin is not available.

Methods This is a retrospective propensity-score matched case-control study in adult patients who underwent ERCP in our tertiary center. The primary outcome measurement was the rate of PEP in Conventional cannulation technique, DWT cannulation, and DWT cannulation with PD stent prophylaxis in a matched cohort by cannulation difficulty (defined by cannulation time > 6 minutes and procedural duration > 30 minutes), gender, age, indication of ERCP, and history of PEP in 2:2:1 ratio. Secondary outcome measurement included severity of PEP, mortality rate, length of hospitalization and ICU stay, and rate of spontaneous PD stent dislodgement after 2 weeks.

Results A total of 155 patients were included (62 patients underwent conventional cannulation, 62 patients with DWT cannulation without PDS, and 31 patients underwent DWT cannulation with PDS. None of the patients received rectal Indomethacin as it was not available in Thailand. The demographic data is described in table 1. DWT cannulation was associated with higher risk of PEP compared with the conventional canulation technique (17.74 % vs 4.84 %; p = 0.023) with one patient in DWT group developing severe PEP. When com-

pared the DWT groups between with and without PDS placement, there was no statistically significant difference of PEP when PDS was placed for all DWT (6.45 % vs 17.74 %; p = 0.14) however, when PD was cannulated more than 3 times, PDS was associated with a significantly lower rate of PEP (0/6 in PDS group vs 3/3 in no-PDS group; p = 0.012) The spontaneous dislodgement of the 5Fr 5cm PDS at 2 weeks occurred in 64.52 % of patients, leaving only a third who required additional endoscopy for PDS removal. [1–3]

Conclusions DWT cannulation tends to increase the risk of PEP compared to the conventional cannulation technique and PD stent may reduce the risk of PEP if PD is cannulated three times or less. When PD is cannulated more than 3 times, PDS placement is strongly recommended.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP581 Cold EMR for large proximal colonic adenomas: a single center preliminary results

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Aims Conventional endoscopic mucosal resection (C-EMR) is the standard of care for the treatment of large colorectal adenomas without submucosal invasive carcinoma (SMIC). However, the use of electrocautery during EMR poses inherent risks, including potentially perforation and bleeding, both intraprocedurally and delayed. In contrast, cold snare EMR (CS-EMR), avoiding the use of current, is currently the new trend in treating large colorectal serrated lesions as well as large sporadic non ampullary duodenal adenomas. This study aims to assess the feasibility, safety and efficacy of CS-EMR of proximal large (> 20 mm) colorectal adenomas.

Methods We prospectively enrolled all cases of CS-EMR for large (> 20 mm) proximal adenomas with low SMIC risk between July 2022 and September 2023. Technical success, defined as the ability complete the procedure, was primary evaluated. Safety was explored by the mean of bleeding and perforation (intraprocedurally and delayed). Efficacy was defined as the absence of residual or recurrent adenomatous tissue during the first surveillance colonoscopy -6 months after index procedure- (SC1) and second surveillance colonoscopy – 12 months after index procedure-(SC2).

Results A total of 56 lesions in 52 patients were included in the study. Technical success was achieved in all procedures (100 %) with no adverse events (0 %). A recurrence rate of 5.2 % (2 patients) was observed at SC1 (38/56 patients with available followup); all recurrences were successfully re-treated with cold snare (CSP) or cold forceps (CFP) polypectomy in the same procedure. No recurrences were detected during at SC2 (12/52 patients with available follow-up).

Conclusions In this initial study CS-EMR demonstrated both excellent technical feasibility and safety profile in treating proximal, large colorectal adenomas. Regarding efficacy, we demonstrated a very high performance, with a 94.8 % recurrence- free patients at 6 months and few recurrences endoscopically treated in the same session. Longer follow-up, as well as large-volume, prospective trials are needed to validate its efficacy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP582 Treatment of delayed postpolipectomy bleeding. Real life experience in a unicentric Spanish cohort

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Aims Delayed post-polypectomy bleeding (DPPB) is the most common complication of endoscopic polypectomy. Its treatment has not been adequately studied in controlled clinical trials; generally, hemostatic methods applied in lower gastrointestinal bleeding are often effective.

Methods The aim is to describe the experience in our center regarding the efficacy and safety of treating DPPB. Single-center retrospective study was performed. We included all patients who presented DPPB between January 2019 and July 2023. DPPB was defined as any bleeding after polypectomy that required urgent care within 30 days after the procedure. Efficacy was defined as proper bleeding control and the absence of re-bleeding within 5 days.

Results A total of 108 cases of DPPB were included, 62.85 % being male (mean age 76.5 years ± 11.7 SD). In 24.77 % (27/108), the scar was prophylactically closed after resection. Urgent colonoscopy was required in 67.59 % (73/108), of which 21.29 % (23/108) had active bleeding in the scar polipectomy, and 25.92 % (28/108) showed signs of recent bleeding. Therapeutic intervention was performed in 77.46 % (58/73). The most common therapy was hemosthatic clips in 50.68 % (37/73), followed by combined therapy (clips + adrenaline) 13.6 % (10/73), 5.47 % used coagrasper, and 3.65 % (5/73) used adrenaline alone. With an efficacy greater than 90 %, the overall re-bleeding rate was 8.21 %. 5.47 % of patients treated with clips experienced re-bleeding (2/37), with 60 % (2/5) in those where adrenaline alone was used. After performing the univariate and multivariate análisis, a statistically significant association was found between re-bleeding and the use of adrenaline alone (p: < 0.01). No major complications were found in our cohort.

Conclusions Common hemostatic methods are widely effective for treating DPPB with minimal incidence of procedure-related complications and re-bleeding. In our series, a positive association was found between re-bleeding and the use of adrenaline as a hemostatic method.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP583 Colonoscopy findings in patients with a positive FIT (Fecal Immunochemical Test)

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Aims Fecal Immunochemical Test (FIT) is increasingly recognized as an effective and practical colorectal cancer (CRC) screening tool, more cost-effective than colonoscopy, making it a suitable option for resource-limited settings. Ensuring that individuals with positive FIT results have timely access to follow-up colonoscopy is a significant challenge. This study aims to describe the most common findings in colonoscopy among patients with a positive fecal immunochemical test (FIT).

Methods A cross-sectional study was conducted on patients who underwent FIT with a positive result (> 20 mcg Hb/g feces) and subsequent colonoscopy within 12 months, from January 2020 to October 2022, at a Mexican tertiary center. Exclusions were made for colonoscopies related to gastrointestinal bleeding, cancer surveillance, cancer screening in inflammatory bowel diseases (IBD), disease activity evaluation in IBD, surgical modification of the colon, or inadequate bowel preparation. Electronic records were reviewed for demographic characteristics and endoscopic findings. Participants were categorized into three groups based on colonoscopy results: malignant findings, non-ma-

lignant findings, and normal. Group differences were assessed, and FIT result dispersion was analyzed, for this abstract only descriptive statistics were employed for data analysis.

Results Out of 11,375 FIT results screened, 514 were positive, and 203 participants underwent colonoscopy within the timeframe (median time of 111 days); 72 met exclusion criteria. The analysis included 131 colonoscopies, revealing 20 normal cases, 95 with non-malignant findings (diverticula, non-advanced polyps, vascular lesions, anorectal disease, inflammatory findings), and 13 with malignant (including 5 colorectal cancer cases). Median FIT results were 33 mcg Hb/g feces (IQR 28-136) for normal colonoscopies, 89 mcg Hb/g feces (IQR 36-168) for non-malignant findings, and 69 mcg Hb/g feces (IQR 34-299) for malignant findings.

Conclusions FIT results tend to be higher in subjects with non-malignant colon pathology. The result should not cause stress in the physician or the patient and should be interpreted in the appropriate clinical context; a higher result does not necessarily translate to a higher probability of cancer. Although FIT results should always be confirmed with a colonoscopy, our findings could help prioritize urgent endoscopic studies, particularly in locations with limited access to colonoscopy such as Latin American countries. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP584 Efficacy of a standard Argon Plasma Coagulation (APC) catheter, used after submucosal injection in patients with Barrett's esophagus and low-grade dysplasia (LGD)

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Aims Evaluate the efficacy of standard APC catheter after submucosal injection for ablation of BE with LGD

Methods Naïve or after previous treatments patients with BE and LGD prospectively evaluated. NaCl 0.9 % was injected submucosally with a 23 G needle followed by APC application (ERBE ICC 200 with APC 300, 45Watts or ESG-300 generator with APU-300, Pulse fast 40W). Patients were sedated with propofol. High-definition endoscopes (OLYMPUS GIF ITH 190) with a transparent cap, acetic acid 2 % and NBI were used. After submucosal injection, a first ablation with APC of a large BE surface was performed and then debris were removed by the cap, followed by a second ablation. The same procedure was repeated, with special attention not to ablate large circumferential areas. Patients were under high dose PPIs and evaluated every 2-3 months till complete BE eradication. Biopsies were taken according to Seattle protocol during follow-up

Results 34 patients, 32 males (94.1 %), 56.4 ± 11.9 years old were evaluated. Initial diagnosis was: 21 patients with LGD (61.8 %), 8 with HGD (23.5 %), and 5 with intramucosal cancer (14.7 %). Ten patients (29.41 %) had previous endoscopic mucosal resection (EMR), 9 (22.6 %) radiofrequency ablation (RFA), and 15 (44.1 %) APC as first line treatment. Mean BE length with LGD, at the beginning of APC treatment was 4.12 ± 2.68 cm and at the end of the treatment median was 0 cm (25^{th}-75^{th}: 0-1, min-max: 0-5). In total 23 (67.65 %) patients completely eradicated BE. No smoking (HR: 2.76, 95 % C.I. 1.12 – 6.84, p = 0.03) and no previous treatment before APC (HR:2.94, 95 % C.I. 1.16 – 7.46, p = 0.02) were favorable factors for BE eradication. Total need for APC interventions and initial BE length positively correlated (Pearson's r = 0.69, p < 0.01). Total patient-years follow up were 88.35. At the end of the study 27 (79.41 %) had no dysplasia. Older age at the diagnosis was a favorable predictor for dysplasia eradication, HR: 4.53, 95 % C.I. 1.68 – 12.2, p < 0.01).

Conclusions 1) Standard APC catheter after submucosal injection is safe and tolerable for flat BE with LGD ablation. 2) It may be applied in naïve patients or if other techniques were previously used. 3) Length increases the number of sessions needed but does not seem to be a limiting factor for APC application. 4) No smoking, and naïve patients for BE treatment are favorable factors for BE eradication while older age of LGD diagnosis is favorable factor for dysplasia eradication

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP585 ERIC, new virtual assistant for colonscopy: a pilot study

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Aims A successful colonoscopy requires ideal stool preparation, yet the percentage of insufficient bowel preparation is still very high. Frequently, the patients use website information on colonoscopy preparation [1]. Conversely, the daily activity of the hospital staff consists of spending time with patients, communicating with them and giving answers to a high number of questions coming from patients regarding the preparation for the procedure or the exam itself. Hence, the idea to adopt a rapid and intuitive patient-oriented digital service to respond to their needs, the virtual assistant Eric.

Methods Endo-Chat is an automated online communication platform, powered by AI (Artificial Intelligence) with the use of the Natural Language Processing and Deep Learning technologies, that answers procedure-related questions in real-time. The engine is named ERIC, stands for "Endoscopy Robot for Intelligent Chat" and is an intelligent chatbot, capable of answering autonomously to most of the doubts of a patient who is supposed to undergo an endoscopic examination.

Results Since the introduction of the conversational artificial intelligence system at the Policlinico Gemelli starting from 24^{th} of January 2022 to the 16^{th} of March 2023, Eric has been able to autonomously manage 94 % of the questions sent by patients, thus forwarding only the remaining 6 % (of the requests) to specialized human operators.

We calculated that in the pre-pilot phase, a large part of the daily activity of nurses was dedicated to communicating with patients, around 40 hours per week, while in the post-pilot phase, the time spent for communication was significantly reduced to 15 hours per week. According to OECD Health Statistics 2022, the average annual salary of a European nurse is 35,300 euros, with an annual hypothetical saving of 22,062 euros, comparable to a part-time contract.

Also, the number of cancelled procedures for poor patient preparation has fallen from 22 to 7 per week, considering a volume of 200 procedures per week. Regarding patient's experience, users can leave voluntary feedback on their virtual assistant experience directly on the ERIC website, evaluating the quality of the service. Patient service evaluations were enthusiastic till now, as 63 % rated the service as excellent.

Conclusions In our observational pilot study, the first in Europe to our knowledge, we assessed the benefits measurement for patients and Hospital staff. Starting from these preliminary interesting results, we can speculate that the introduction of Endo-Chat in high-volume endoscopy service is feasible and useful not only for patients but also for hospital staff.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP586 Effectiveness and safety of Electrohydraulic Lithotripsy guided by Spyglass-DS in the treatment of difficult common bile duct stones

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Aims Most biliary stones can be treated with ERCP using conventional techniques, with a failure rate of up to 5 %. For those stones that are difficult to manage, electrohydraulic lithotripsy (EHL) guided by SpyGlass-DS has emerged as an effective technique with a similar complication rate. However, data on efficacy and safety remain limited in our setting.

Methods The aim is to evaluate the efficacy and safety of EHL for the treatment of unresolved difficult stones using conventional endoscopic techniques.

A retrospective study was performed. We included all patients in whom EHL was used for the treatment of common bile duct stones from January 2020 to May 2023 in two tertiary care centers. Technical success was defined as the correct positioning of the cholangioscope up to the common hepatic duct, and clinical success as the extraction of the stone with adequate clearance of the biliary tract.

Results Twenty-eight patients were included, 64 % male (mean age 70.4 years ± 14.7 SD). The mean bilirubin level was 10.3 mg/dL, and the extrahepatic biliary tract was dilated (> 7 mm) in 100 %. The most common location was the distal common bile duct in 60.17 % (18/28), followed by the common hepatic duct in 7.55 % (4/28). Stone size was < 10 mm in 32.14 % (9/28), 10-20 mm in 28.57 % (8/28), and > 20 mm in 28.57 %. Technical success was 92.5 % (26/28), and clinical success after the first procedure was 84.6 % (22/26); 11.5 % required > 2 procedures. The rate of major complications was 7.14 % (one mild pancreatitis and one cholangitis). Univariate and multivariate analyses did not find factors associated with treatment response.

Conclusions EHL appears to be an effective and safe method for the treatment of difficult stones. However, it should be compared with other endoscopic techniques in randomized studies to support these results.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP587 Combined treatment of T1 rectal cancer in patient with comorbidities. Endoscopic mucosal resection and endoscopic full-thickness resection of scar

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Abstract Text A 81-year-old male with comorbidities, was referred for rectal bleeding. Colonoscopy: in rectum, a 20 mm sessile lesion with a high risk of adenocarcinoma (non-granular LST, Kudo pattern Vi-Vn). Stage T1,N0 by MRI and EUS. Given the age and comorbidity surgery was ruled out and endoscopic full-thickness resection (eFTR) was offered. Firstly, assessed with a test cap, being very friable when picked up with forceps, tearing easily, which makes it impossible to insert it inside the cap. In bloc endoscopic mucosal resection (EMR) is performed first, and subsequently, eFTR is realized. Histology: infiltrating adenocarcinoma moderately differentiated (G2) submucosal invasion without lymphovascular or perineural involvement. Scar without malignancy. No recurrences were detected during follow-up.The combination of EMR and eFTR of the scar in the same procedure can be an alternative in selected cases.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP588 Examining the certainty of optical diagnoses for colonic polyps at a Reference Center in Latin America

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Aims The certainty in the optical diagnosis of small polyps less than 10 mm without histological analysis can make colonoscopy more efficient and cost-effective. To implement this strategy, European guidelines recommend an optical-histological certainty greater than 90 % (sensitivity greater than 90 % for adenoma detection and specificity greater than 90 % for hyperplastic polyp detection). This study aimed to assess the optical-histological certainty of colonic polyps among trainee endoscopists at a Reference Center in Latin America.

Methods A prospective study was conducted at the National Institute of Medical Sciences and Nutrition "Salvador Zubirán" in Mexico. Inclusion criteria encompassed patients who underwent colonoscopies, with polyps removed from any colon site. Endoscopy fellows from INCMNSZ were involved. Optical diagnosis, utilizing NBI and FICE systems based on equipment availability, issued a diagnosis (adenoma, hyperplastic, serrated, or dysplasia/neoplasia) using the NICE classification for NBI and vascular-mucosal patterns for FICE. Sensitivity and specificity were calculated, considering true positives (properly classified adenomas), true negatives (properly classified as hyperplastic), false positives (incorrectly classified as adenoma), and false negatives (incorrectly classified as hyperplastic). [1–3]

Results 142 polyps were detected in 139 colonoscopies performed between March and August 2023, of which 102 (72 %) were analyzed. Analyzed polyps comprised 53 % adenomas (n = 55), 42 % hyperplastic (n = 44), and 3 % adenocarcinoma (n = 3). The adenoma detection rate was 39 %, with sensitivity and specificity for adenoma detection at 81 % and 74 %, respectively. The overall diagnostic certainty reached 77 %.

Conclusions Sensitivity and specificity in the optical diagnosis of polyps at the Latin American Reference Center fell below European guideline recommendations. Consequently, it was crucial to implement teaching and learning techniques to enhance diagnostic standards, especially in low and middle-income countries.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP589 Outcomes in COVID-19 patients with acute cholangitis: a single-center retrospective analysis

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Aims The aim of this study was to appraise the impact of COVID-19 infection on patients with acute cholangitis (AC), to compare the outcomes, complications and hospital stay in a tertiary Gastroenterology department.

Methods This study is designed as a retrospective observational cohort single center study performed in a tertiary department of gastroenterology to investigate the confluence of COVID-19 and AC. Data were collected from patients with AC and COVID-19 between April 2020 and February 2022. Clinical and demographic data were collected systematically, retrospectively, encompassing COVID-19-specific information, cholangitis presentation, medical records, laboratory results, and medical interventions. The AC diagnosis was determined following the TG18 criteria, with all patients undergoing the collection of a bile culture sample. This study investigates the clinical characteristics of patients with and without COVID-19 undergoing endoscopic retrograde cholangiopancreatography (ERCP).

Results A total of 241 patients were included, with 30 in the COVID group and 211 in the non-COVID group. The analysis focused on various demographic and clinical parameters, aiming to identify significant differences between the two groups. The mean age of COVID patients was significantly higher than that of non-COVID patients (74.3 vs. 67.3 years, $p = 0.009$). Gender distribution did not show a significant difference between the two groups ($p = 0.539$). Abdominal pain was more prevalent in the COVID group (90.0 % vs. 70.6 %, $p = 0.025$). Notably, the presence of sterile bile cultures was significantly associated with the COVID group ($p = 0.040$). Several diagnostic categories were explored, revealing significant differences in the causes of obstruction between the two groups ($p = 0.022$). COVID patients had a higher incidence of complications such as cholangiocarcinoma and neoplastic involvement. The severity of cases, as assessed by the Tokyo severity classification, showed no significant difference between the groups ($p = 0.103$). Clinical markers, including white blood cell count, total bilirubin, platelet count, international normalized ratio, and C-reactive protein, did not differ significantly between the groups. However, the duration of hospitalization was significantly longer for COVID patients ($p < 0.001$).

Conclusions This study sheds light on the distinct clinical features of patients with COVID-19 undergoing ERCP compared to non-COVID patients. Understanding these differences is crucial for tailoring effective management strategies for this specific population. Further research is needed to explore the implications of these findings on patient outcomes and treatment approaches.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP590 Deep Learning and Gastric Cancer: Systematic Review of AI-assisted Endoscopy

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Aims Deep learning (DL) has shown potential to improve and standardize early GC detection. This systematic review aims to evaluate the current status of DL in pre-malignant, early stage and gastric neoplasia analysis

Methods A comprehensive literature search was conducted in PubMed/MEDLINE for original studies implementing DL algorithms in gastric neoplasia detection using endoscopic images. We adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. The focus was on studies providing quantitative diagnostic performance measures and those comparing AI performance with human endoscopists.

Results Our review encompasses 42 studies utilizing a variety of DL techniques. The findings demonstrate the utility of DL in GC classification, detection, tumor invasion depth assessment, cancer margin delineation, lesion segmentation, and detection of early stage and pre-malignant lesions.

Notably, DL models frequently matched or outperformed human endoscopists in diagnostic accuracy. However, heterogeneity in DL algorithms, imaging techniques, and study designs precluded a definitive conclusion about the best algorithmic approach.

Conclusions The promise of artificial intelligence improving and standardizing gastric neoplasia detection, diagnosis, and segmentation is significant. This review is limited by predominantly single-center studies and undisclosed datasets in AI training, impacting generalizability and demographic representation. Further, retrospective algorithm training may not reflect actual clinical performance, and a lack of model details hinders replication efforts. More research is needed to substantiate these findings, including larger-scale, multi-center studies, prospective clinical trials, and comprehensive technical reporting of DL algorithms and datasets. particularly regarding the heterogeneity in DL algorithms and study designs

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP591 Modified endoscopic vacuum therapy: the 4S's procedure – Simple, Successful, Suitable and economically Sustainable

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Aims Anastomotic upper gastrointestinal leaks are the most dreaded complications in esophagogastric surgery and are associated with high morbidity and mortality. The optimal management of such leaks remains challenging.

A new modified endoscopic vacuum therapy (MEVT) system was recently described. This technique seems to be feasible, safe and cost-effective for the treatment of gastrointestinal transmural defects.

The MEVT is a homemade device built with a nasojejunal tube, gauze and antimicrobial tape, which allows tissue repair and concomitant enteral nutrition. Herein, we describe a case series with illustration of the different steps of this technique, focusing on its applicability and outcomes.

Methods We present the cases three male and one female patients, aged between 55 and 67 years, two of them with distal esophageal adenocarcinoma operated with minimally invasive Ivor-Lewis esophagectomy, one with gastric adenocarcinoma operated with total gastrectomy and the last with a complicated bariatric gastric bypass.

In the first week after surgery, three of them developed perianastomotic fistulas with pleural effusion and two of them also developed mediastinitis. The fourth case presented a millimetric anastomotic leak without associated complications.

The two most serious cases persisted with anastomotic defects persisted after nutritional optimization, antibiotics, endoscopic stent placement, CT-guided percutaneous drainage and/or thoracoscopic/laparoscopic surgical debridement.. One of the cases developed a tracheoesophageal fistula. Due to the failure of conventional therapy, a new approach was tried with MEVT. The approach for the other two cases was early onset of MEVT and adjuvant broad-spectrum antibiotics.

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Results All cases evolved with technical and clinical success. In the tracheoesophageal fistula case, a three-week MEVT was needed to get fistula's bed tissue repair, allowing a successful closure of the defect with an over-the-scope clip. In the other cases, fistula closure was achieved after two to fourweeks with MEVT.

By allowing enteral feeding, this strategy enabled a concomitant nutritional optimization. There were no adverse events related to this method and the patients remain asymptomatic during follow-up.

Conclusions MEVT was effective in the treatment of upper gastrointestinal leaks. Prospective studies are warranted before its promising dissemination in clinical practice.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP592 EUS-GE: initial single center experience

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Aims Endoscopic ultrasound-guided gastroenterostomy (EUS-GE) using a lumen-apposing metal stent (LAMS) is a novel endoscopic technique used to treat gastric outlet obstruction mostly caused by malignant disease such as pancreatic, gastric or biliary cancer. It is a technically challenging procedure with a high-risk of complications especially when performed by an endoscopist with limited experience.

Methods We retrospectively analyzed our prospectively collected data of all EUS-GE performed in our center from 2021. Clinical success was defined by the gastric outlet obstruction scoring system (GOOSS). All procedures were done by one endoscopist with no previous experience with the technique.

Results In total 27 patients were included in the study (14 men, 13 women, mean age 71 years (range 44-90)). The indication for EUS-GE was malignant disease (pancreatic cancer, cholangiocellular carcinoma, gastric cancer, gallbladder cancer, breast cancer, renal cancer and liver cancer) in 25 cases and benign disease (chronic pancreatitis, aortic aneurysm) in 2 patients. The procedure was technically feasible in all but one patient (26/27, 96,3 %). Clinical success when evaluated as restoration of solid oral intake was 84,6 % (22/ 26 patients) and 100 % (26/26) when evaluated as restoration of at least liquid oral intake. The overall mean GOOSS achieved was 2.5 (1-4). [1–3]

Severe complications occurred in two patients (2/26, 7,7 %). In one patient we experienced an unusual complication 6 months after the procedure when a gastrojejunocolic fistula developed, causing weight loss and fecal content vomiting. The fistula was successfully closed endoscopically. Another patient with a metastatic gastric cancer died one day after the intervention of a cardiac cause. Mean procedure time was 47 minutes (20-91) with no difference in mean time of the first and last five procedures. Mean survival post intervention was 124 days (1-560). No intervention for symptom recurrence was needed during our follow-up.

Conclusions EUS-GE is an efficient and safe technique in the treatment of gastric outlet obstruction even when performed by an endoscopist with no prior experience.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP593 Deep Learning in Coeliac Disease: A Systematic Review on Novel Diagnostic approaches to disease diagnosis

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Aims This systematic review aimed to evaluate the current state of deep learning applications in coeliac disease diagnosis and identify potential areas for future research that could enhance diagnostic accuracy, sensitivity, and specificity.

Methods A systematic review was conducted using the following databases: PubMed, Embase, Web of Science, and Scopus. PRISMA guidelines were applied. Two independent reviewers identified research articles using deep learning for coeliac disease diagnosis and severity assessment. Only original research articles with performance metrics data were included. The quality of diagnostic accuracy studies was assessed using the QUADAS-2 tool, categorizing studies based on risk of bias and concerns about applicability. Due to heterogeneity, a narrative synthesis was conducted to describe the applications and efficacy of deep learning techniques in coeliac disease diagnosis.

Results The initial search across four databases yielded 417 studies, with 195 being removed due to duplicity. Finally, eight studies were found to be suitable for inclusion after rigorous evaluation. They were all published between 2017 and 2023 and focused on using deep learning techniques for coeliac disease diagnosis or assessing disease severity. Different deep-learning architectures were applied. Accuracy levels ranged from 84 % to 95.94 %, with the GoogLeNet model achieving 100 % sensitivity and specificity for video capsule endoscopy images.

Conclusions : Deep learning techniques hold substantial potential in coeliac disease diagnosis. They offer improved accuracy and the prospect of mitigating clinician bias. However, key challenges persist, notably the requirement for more extensive and diverse datasets, especially to detect milder forms of coeliac disease. These methods are in their nascent stages, underscoring the need of integrating multiple data sources to achieve comprehensive coeliac disease diagnosis

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP594 ERCP with the disposable duodenoscope aScope Duodeno in routine clinical practice

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Aims Bacterial colonization of reuseable duodenoscopes has been linked to healthcare-associated infections and was extensively discussed in the recent years as a potential risk for patients after ERCP. Therefore, disposable duodenoscopes were developed to eliminate the risk of cross-contamination. We evaluated the safety and efficacy of the single-use duodenoscope aScope Duodeno (Ambu A/S, Denmark) in routine clinical practice.

Methods A total of 51 patients with indication for ERCP were examined with the aScope Duodeno. The time to the papilla duodeni, canulation rate of the intended duct, ASGE grade of complexity of the ERCP and the outcome of the procedure was documented. A 30-days-follow-up with a standardized questionnaire regarding infections or other complications is introduced.

Results 30 women and 21 men with an average age of 69 (32-97) years were examined with the aScope Duodeno. In 39,2 % there was a native papilla while 60 % of cases had prior EST. Successful intubation rate was 100 % and time to the papilla was 02:45min, intubation of the intended duct 07:25min and overall procedure time was 31:11min. Complexity of the ERCP was high with AS-

GE-grade of 47 % ASGE grade 3, 39 % ASGE grade 2, 14 % ASGE grade 1, mainly stenosis and interventions including PDT, SEMS and mother-baby cholangioscopy were performed. The conversion rate was 21 %. There were no major complications, minor complications were seen in 2 out of 51 patients (bleeding, laceration of papilla). All were treated endoscopically.The ERCPs were conducted by endoscopists of all levels of experience.

We anticipate being able to showcase a cohort of about 100 cases by the time of the congress.

Conclusions ERCP with the disposable duodenoscope aScope Duodeno is feasible and safe in routine clinical practice. It might be more challenging in more complex interventional procedures and when used by non-experienced low-case load endoscopists.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP595 Multicentric observational study for patients undergone to peroral endoscopic septotomy for symptomatic Zenker diverticulum: mid term results

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Aims Peroral endoscopic septotomy (POES) is a recent and promising technique for the treatment of oesophageal Zenker's diverticulum. It differs from well described Z-POEM for the access to submucosal space made directly from the top of the diverticular septum. After muscular isolation, the myotomy is extended up to diverticular plane and 10-15 mm beyond, in the esophageal verge. Therefore, the mucosal access to the tunnel is closed using TTS clips.

The aim of this study is to assess the efficacy of POES after at least 1 year of follow up

Methods This was a multicenter retrospective observational study involving two Italian tertiary referral centers. The data were collected and analysed from consecutive patients affected by symptomatic Zenker's diverticulum (ZD) and treated with POES from December 2019 to the end of 2022.

Primary outcome measures was clinical success rate (< 3 points in Kothari-Haber Score at 12 months follow-up). Secondary outcome measures included procedures' duration, length of hospital stay, and adverse events.

Results Twenty-seven patients (18 male) were analysed in the study period. The mean age was 69.6 years (range 35-82 years old). Three patients were previously treated by septotomy (2 flexible, 1 rigid). The average dept of the ZD was 26.6 mm (IQR, 15– 45mm). All but two patients underwent to POES under general anestesia. If technical success was achieved in all patients (100 %), three of them (11.1 %) showed poor clinical response (one re-treatment, one with 45 mm ZD and one with BMI 37).

The average Kothari-Haber Score was 6.16 before treatment 0.76 after the treatment and 0.81 after 1 year follow up ($p < 0.0001$). The mean procedure time was 47.16 (± 21.1) minutes.

Three patients experienced adverse events, mild in two of them (one post procedural fever and one prolonged pain and dysphagia). One patient showed severe retrofaringeal bleeding, started 7 hours after the procedure, required emergency intubation and overnight surgical evacuation of the hematoma from the right side of the neck. [1–3]

Conclusions POES is a very effective technique to treat Zenker Diverticulum, maintaining efficacy at least over the first year. Symptoms recurrence could be higher in case of re-treatment or big ZD. Although rare, adverse event may be severe and this should be always kept in mind.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP596V Endoscopic “unroofing” of an intestinal lipoma

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Abstract Text A 63-year-old woman with frequent episodes of sub-occlusions underwent a colonoscopy. A pedunculated polyp was found in the distal ileum near the ileocaecal valve. An MRI confirmed an adipose formation (3.5x2cm) as likely lipoma. To remove this lesion, a procedural colonoscopy was performed; After placement of an endoloop on the base of the pedicle, an "unroofing" of the upper third of the head of the lesion was obtained with a mucosal incision on 3/4 of the circumference. Subsequently, partial resection was practiced with a diathermic loop on the extrusion lipoma. No complications were observed; The patient’s symptoms resolved; Complete disappearance of the lesion at subsequent endoscopic follow-up. Given the site and size of the lipoma, endoscopic "unroofing" could be a viable approach under challenging cases of complete extraction.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/c68a4a31-782d-44ea-98c7-6d2223587231/Uploads/13821_Lipoma.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP597 Impact of proximal small bowel lesions detected by capsule endoscopy in Crohn's Disease patients

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Aims Capsule endoscopy (CE) is an increasingly used method for the evaluation and monitoring of small bowel Crohn’s Disease (CD). Our study aimed to describe the clinical significance of small bowel CD, specifically, proximal lesions diagnosed using CE.

Methods Retrospective study including patients with inflammatory bowel disease (CD, ulcerative colitis [UC] and unclassified colitis) who underwent capsule endoscopy to assess the small bowel. Small bowel disease was evaluated by the Lewis score and the Capsule Endoscopy Crohn’s Disease Activity Index (CECDAI) score. Clinical impact was evaluated through treatment modifications.

Results We included 70 patients, 44 (62.9 %) with established CD, 12 (17.1 %) with UC and 14 (20.0 %) with unclassified colitis. Median age at diagnosis was 28.5 years (interquartile range [IQR], 20.75-38.50) and 42 (60.0 %) patients were women. Regarding patients with CD, at diagnosis, 20 (45.5 %) patients had terminal ileal lesions (L1 according to Montreal Classification), 10 (22.7 %) ileocolonic disease (L3), 8 (18.2 %) colonic disease (L2), 4 (9.1 %) both ileal and

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upper disease (L1 + L4) and 2 (4.5 %) patients had only upper disease (L4). Most of the cases (38, 86.4 %) had inflammatory phenotype. After performing CE, a new extension was determined in 19 (43.2 %) patients; in 10 (52.6 %) cases who were initially classified as terminal ileum disease (L1), CE also detected upper lesions (L4). Of the 14 patients with unclassified colitis, 5 (35.7 %) were finally diagnosed with CD according to CE findings. Three (25.0 %) of the patients with UC were newly diagnosed as CD due to the CE results. CE was able to identify proximal disease in 30 (42.9 %) patients, 28 (93.3 %) had CD. Median Lewis score was 1220 (IQR, 450-1956) and median CECDAI was 12 (IQR, 7-16). In respect of management, 35 patients (33 of these had CD) required treatment modifications, 82.9 % of them were due to the findings on CE, (62.1 % of these adjustments were attributable to CE proximal lesions). Treatment changes mainly involved adding steroids (34.5 %), azathioprine (41.4 %), adalimumab (24.1 %) or infliximab (13.7 %).

Conclusions CE allows detection and characterization of proximal lesions in CD with a high diagnostic field. These findings have a considerable impact on treatment decisions.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP598V Iron Sulfate-related gastric lesions

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Abstract Text A 15-year-old woman presented with severe epigastric pain and dark grey vomiting after the ingestion of 60 tablets of iron sulfate (329,7 mg/single tab). Blood exams were unremarkable unless for increased iron levels (550 µg /dl). At the upper gastrointestinal endoscopy the gastric cavity appeared coated by jelly mucous secretions mixed with the dissolved tablet residues; diffuse mucosal oedema, multiple erosions, and spot bleedings. Residual tablets were gently removed with a Roth-Net basket to prevent dissolution and further absorption. Acute iron poisoning should be consider in emergency departments as a mechanism of injury in suicide attempts [1]. Early endoscopy is essential in this setting to assess the damage [2, 3].

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/a2b0f4c3-ca0b-40e5-a438-4358e0246590/Uploads/13821_Video-_ferrograd%20definitivo.mp4

Conflicts of interest consulting fees for Olympus; Apollo Endosurgery Boston Scientific Cook Medical Pentax Medical EndoTools Microtech ERBE Elektromedizin

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eP599 Post-transplant pinhole biliary anastomotic strictures

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DOI 10.1055/s-0044-1783888

Aims Post-liver transplant biliary anastamotic strictures (BAS) account for the majority of biliary complications post-liver transplant (post-LT). Risk factors for the development of BAS include living related grafts, split liver grafts, vascular and preservation issues, amongst others. ERCP with placement of either metal or multiple plastic stents is the conventional treatment of choice. Traversing the BAS with a wire is only infrequently problematic, and if conventional 0.035 hydrophilic wires are unable to pass, success is usually attained with slimmer or alternative wires. Here we describe our experience of pinhole BAS developing in liver transplant recipients, requiring the use of peroral cholangioscopy to guide wire placement.

Methods In a prospectively kept database, liver transplant recipients undergoing ERCP for the indication of BAS were identified. Clinical data were collected from the electronic patient records.

Results From October 2018 to December 2022, 457 liver transplants were performed. Of these, eight patients required cholangioscopy to guide wire access across the biliary anastomotic stricture, although in 1 patient this was due to an occluding stone lodged within the BAS and in the remaining 7 patients cholangioscopy was required due to true pinhole anastomosis (see Figures). 4 patients had received non-heart beating liver grafts, and the other 4 heart-beating grafts. Median duration from transplant to stricture development was 11 months (range 3 – 26 months). Indication for transplant included alcohol-related liver disease (n = 1), metabolic dysfunction-associated liver disease (n = 2), autoimmune hepatitis (n = 1), primary biliary cholangitis (n = 1), primary sclerosing cholangitis (n = 1), hepatocellular carcinoma (n = 1), acute liver failure (n = 1). In 6 patients, this was the index ERCP post-LT; the remaining 2 patients had received prior treatment for BAS. In 2 patients, a wire could not traverse the BAS despite cholangioscopy; one underwent percutaneous biliary stenting (36 months post-LT; DBD graft), the other conservatively managed having declined surgery (6 months post-LT; DBD graft). The remaining 6 patients achieved stricture resolution with ERCPs, with median time to resolution of 6 months (range 4 – 13), median number of total procedures was 4. There were no adverse events.

Conclusions Cholangioscopy is a valuable tool in the treatment of biliary complications post-liver transplant. The development of pinhole biliary anastomosis occurs uncommonly. Within the limitations of this small number of patients, no obvious associations were identified.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP600 PRIORITIZE study: Prioritizing Resumption Of Colorectal screening after covid pandemic

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DOI 10.1055/s-0044-1783889

Aims FIT-based colorectal cancer screening programs have been severely hampered during COVID-19 pandemic and its aftermath. Both test distribution and post-FIT colonoscopies have seen a manifold decrease in number of performed procedures. It is well known that any delay in post-FIT + colonoscopy results in an increase in advanced neoplasia and CRC. Since colonoscopy slots are limited, any means to risk-stratify subjects before post-FIT colonoscopy may result in timely diagnosis of CRC and advanced adenomas, but such tools are currently lacking.

Aim of our study was to develop and validate a simple scoring system to effectively sub-stratify CRC/advanced adenomas risks in FIT + patients, based on the retrospective analysis of a large cohort of patients in a long-standing FIT based CRC screening program.

Methods This was a retrospective analysis of prospectively collected data from a regional CRC screening program in Italy, from 2004 to 2019. Men and wom-

en aged 58 to 70 years were invited to undergo quantitative FIT (OC-sensor FIT) and subsequent colonoscopy if ≥ 20 µg Hb/g of feces (FIT +). Patients who underwent both FIT test with positive results and colonoscopy were included in the study. A multivariable logistic regression analysis was performed to identify variables independently associated to CRC and advanced adenoma risks in the derivation cohort (2004-2015), and the discriminative performance of the model was tested on the validation cohort (2016-2019).

Results Overall, 40,640 patients undergoing colonoscopy after a FIT + , were included. Prevalence of first-round FIT + subjects was 58.5 %. Median FIT was 52.4 mcg/g (IQR, 29.8-137.3). CRC was found in 2,164 (5.4 %) subjects, high-risk adenomas in 12,218 (30.3 %), and low-risk adenomas in 5,990 (14.9 %). Variables independently associated with CRC were age ≥ 70 years (OR 1.20, 95 % CI 1.03-1.40), male sex (OR 1.23, 95 % CI 1.11-1.37), FIT ≥ 50 mcg/g and < 200 mcg/g (OR 2.84, 95 % CI 2.47-3.27), FIT ≥ 200 mcg/g (OR 6.91, 95 % CI 5.99-7.98), and first round of FIT (OR 1.53, 95 % CI 1.35-1.73). From these variables, a hierarchical approach based on marginal effect predicted probabilities was used to derive a clinically usable risk-stratification flowchart.The discriminative ability of the model was fair, as the AUROC was 0.65 (95 % CI 0.65-0.66) in the derivation cohort and 0.63 (95 % CI 0.62-0.64) in the validation cohort.

Conclusions We show that the use of readily available clinical variables is effective in identifying FIT + subjects at increased risk of CRC. This tool could be integrated in FIT-based screening programs to maximize their effectiveness through the correct prioritization of colonoscopy resources.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP601 Is a resect and discard strategy possible in a small non academic center?

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DOI 10.1055/s-0044-1783890

Aims Our objective is to determine whether SODA competency standards for resect and discard strategy can be achieved in a small non-academic centre in daily practice.

Methods We compared all optically diagnosed lesions entered in the endoscopic database with the pathological diagnosis between 2018 and october 2023

Results We analysed 7661 lesions for which both optical diagnosis and pathology were available. Sensitivity was 93.10 % and specificity 68.66 % for neoplasia in lesions < 6mm.

These data improve significantly in 2022 with sensitivity of 93.48 % and specificity of 77.47 % and 2023 with sensitivity of 97.48 % and specificity of 79.25 %, and one of two endoscopists with at least 100 lesions with sensitivity and specificity above 80 %. [1]

Conclusions SODA competency standards for the resection and discard strategy can be achieved in a small non-academic centre in daily practice and continuous auditing of results can improve outcomes over time.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP602 Endoscopic vacuum therapy for the management of gastro-esophageal perforations

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DOI 10.1055/s-0044-1783891

Aims Esophageal or gastric perforation is associated with systemic inflammatory response syndrome (SIRS), which can lead to multi-organ dysfunction and mortality in up to 50 % of cases. Endoscopic vacuum therapy involves the use of a catheter with a sponge attached to its distal end, connected to a machine that applies negative pressure, allowing for continuous drainage of the perforation site and potentially promoting healing of the transmural defect. Previous series have reported promising results, indicating the potential effectiveness of this therapy in managing esophageal perforations. To evaluate the efficacy of endoscopic vacuum treatment in patients with primary or secondary gastroesophageal perforations.

Methods Single-center retrospective cohort study on patients treated for gastroesophageal perforation between March 2019 and September 2022. The inclusion criteria for the study were patients with gastroesophageal perforation resulting from spontaneous rupture or iatrogenic damage (post-surgical or post-endoscopic treatment). The primary outcomes of the study were the success rate of endoscopic therapy, the length of hospital stay, and the specific survival at 30 and 90 days. The success rate of endoscopic therapy was assessed by considering the treatment successful if it led to the resolution of the fistula following vacuum endoscopic therapy. Secondary endpoints included the need for intensive care unit (ICU) stay between the start of vacuum endoscopic therapy and the patient's discharge.

Results 27 patients, with a mean age of 69.8 years (95 % CI 65.4-74.3), including 9 (33.3 %) women, underwent endoscopic treatment with vacuum therapy for esophageal perforation. The causes of perforation were as follows: 6 (22.2 %) cases were primary (Boerhaave syndrome), 15 (55.5 %) cases were post-surgical (post-surgical anastomosis), and 6 (22.2 %) cases were post-endoscopic treatment (endoscopic dilatation). Among the patients, 13 (48.1 %) had previously undergone surgery for cancer, with 69.2 % of them receiving intrathoracic stomach interposition reconstruction and the remaining patients undergoing reconstruction according to Roux-en-Y procedure. The treatment was successful in 21 (77.7 %) patients, with a 14 days (9.0-24.4, 95 % CI) median duration of treatment, and 4 (3-7, 95 % CI) median number of endoscopic devices used per patient. One patient (3.7 %) died within 30 days, and another one (3.7 %) within 90 days. A total of 10 (38.4 %) patients required an ICU stay, and there were no readmissions within 30 days. No procedure-related complication was reported. [1–3]

Conclusions In the current pilot study, the findings support the feasibility and safety of endoscopic vacuum therapy as a treatment modality for both primary and secondary gastro-esophageal perforations.

Conflicts of interest Roberto Valente is consultant to Boston Scientific, Urban Arnelo is Consultant to Boston Scientific and to Ambu

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eP603 Vacuum-assisted Therapy with VACStent for the treatment of simultaneous leaks in the blind jejunum end and jejunum after a total gastrectomy

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DOI 10.1055/s-0044-1783892

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Abstract Text A 58-year-old male underwent total gastrectomy for gastric cancer at an external institution and was referred to our center due to a severe post-operative bleeding from a splenic artery pseudoaneurysm. Subsequent upper GI study revealed two simultaneous leaks – one approx. 15 mm at the blind end of the esophagojejunostomy and another approx. 20 mm jejunal leak 2 cm distal of the blind loop. A surgical revision was deemed not appropriate and an endoscopic vacuum therapy was started. Despite four weeks of EsoSponge therapy, the leaks persisted. Thus the decision was made to utilize VACStent. After four weeks of therapy with regular stent exchange every five to seven days, no further sign of leakage was seen in a follow-up CT study. This case demonstrates the efficacy of VACStent in managing two simultaneous leaks following gastrectomy. [1–2]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP604 Feasibility, safety and accuracy of endoscopic ultrasound guided biopsy for diagnosis of splenic focal lesions

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DOI 10.1055/s-0044-1783893

Aims our aim is to evaluate safety and efficay of EUS- Guided biopsy from the splenic focal lesions

Methods Prospective study included patients presented or referred to particpating tertiary centers for EUS guided biopsy. We documented the criteria of the splenic focal lesions (size, echogenicity, site, vascularity, cystic or solid, and strain index/elastography). we tried to use larger size needles and FNB needle in our study. we avoid suction method except in cystic lesions in which we used 19G FNA needle. we followed up the patient for 4-6 hours in the recovery room, evaluating vital signs and abdominal pain.

Results Up till now, twelve patients were presented for EUS assessment and biopsy from splenic focal lesions with various clinical presentations. We had seven Males and Five females enrolled in our study. we targeted different sizes of splenic focal lesions (ranging from 14 mm to 80 mm). Different types and sizes of EUS needles were used (Aquire needle 22G; the most common, Procore needle 20G, 19G needles, 22 FNB Microtech needle, Expect Needle 19 G for aspiration) with different numbers of passes in each case (From one to three passes, depending on MOSE) and avoiding suction technique except the case woith abscess (we used slow pull back technique and Knock door for small lesion and with fanning in all). No detected immediate or delayed complication.

The definitive diagnosis were reached histopathologically in eleven cases (91.6 % of cases). We had five cases of Lymphoma (four cases of large cell non-Hodgkin lymphoma with IHC, one case of Hodgkin's disease), Two cases of non-caseating granuloma, one case of splenic infarction, one case of a splenic abscess, one case is HCC (metastatic, he had hepatic focal lesion without diagnostic criteria of HCC and assessed for TACE but the splenic focal lesion was not conclusive by imaging study), one case of sclerosing angiomatous nodular malformations (SANT), and one revealed atypical lymphoid cell with inconclusive and insufficient biopsy for IHC.

The patients were followed up in the recovery room for 4-6 hours post-endoscopy.

Conclusions According to our preliminary data, EUS guided biopsy using various type and sizes of EUS guided needles is safe and effective for diagnosis of splenic focal lesions even small size lesions.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP605V Over-the-wire Lumen-Apposing Metal Stent for the Management of a Chronic Fistula After One-Anastomosis Gastric Bypass

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DOI 10.1055/s-0044-1783894

Abstract Text A 52-year-old female patient with chronic fistula after One-Anastomosis Gastric Bypass, had first come to our attention in July 2022, 4 months after surgery complicated by pouch staple line leakage, treated with esophagogastric self-expandable metal stent, which was then removed for migration. CT scan with Gastrografin and gastroscopy showed the fistula with leakage into the peritoneal cavity between the gastric pouch and the remnant. A Lumen-Apposing Metal Stent (LAMS-15x10mm Hot Axios Boston Scientific) was placed to close the via between the two structures. CT scan with Gastrografin showed complete closure of the fistula. Patient was discharged the day after the procedure. The LAMS was removed after one month and by January 2023 gastro-gastric fistula was not sutured as it was not clinically significant.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/e45a2433-6170-4b43-84d8-67f8a36fda28/Uploads/13821_Case_report.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP606 The cost implication of a care pathway using biodegradable pancreatic stents versus conventional plastic stents in the prevention of post-ERCP pancreatitis

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DOI 10.1055/s-0044-1783895

Aims 5F plastic pancreatic stents are recommended for the prevention of post-ERCP pancreatitis (PEP). However, these patients require further care post-procedure to confirm spontaneous stent passage and repeat endoscopy for stent removal if migration has not occurred (in approximately 20 %). The development of a 6F biodegradable (BD) stent (Archimedes, Q3 Medical, Dublin, Ireland), which can be used for the same indications, removes the need for additional post-procedure care. This study aimed to evaluate the cost implications of a care pathway using biodegradable pancreatic stents compared with usual care with plastic stents

Methods A retrospective analysis was performed from Oct 2020 to Oct 2023 to identify all patients at a tertiary centre who had a plastic stent inserted for PEP. The episodes of care presumed the same costs for index ERCP, and a requirement for follow up x-rays in all patients receiving plastic stents, and endoscopy with fluoroscopy to remove these stents if not migrated spontaneously. Patient data was retrieved from medical records and costs from the hospital's finance department. Travel costs were estimated based on public transport fares. The transport cost was doubled for endoscopic stent retrievals given the requirement for a patient escort post-sedation. The incidence of requirement for follow-up imaging and endoscopy was calculated. The cost of imaging was calculated, as was the cost of repeat endoscopic procedures, including the item cost of each plastic stent. The total cost of post-plastic stent insertion care was then calculated as a mean cost per patient. The cost of a biodegradable stent was compared against the mean cost of plastic stent follow-up care.

Results All patients with plastic pancreatic stents for PEP from Oct 2020-Oct 2023 were identified (n = 80). 12 patients who had planned repeat ERCPs for clinical reasons were excluded. 68 patients were included; 34 female; mean age 59 years [range 20–96]. 62 patients had one repeat x-ray, whilst a further 6 had a second x-ray to assess for stent migration. 15 patients (22.1 %) required repeat

ERCP to remove the pancreatic stent. The mean return journey cost was €58.83 for post-ERCP care, and so 104 episodes of travel (74 for x-ray, 30 for endoscopy including an escort) resulted in patients incurring mean travel costs of €85.30. The mean cost of an x-ray was €131. The mean cost of a repeat ERCP for removal of plastic stent was €2170. Individual plastic pancreatic stents were charged at €35. The total cost of care (including patient and health service incurred costs) for 68 patients on the conventional plastic pancreatic stent pathway was €50,814, with the mean cost per patient €747. The item cost of the BD pancreatic stent was €735, with no ongoing care costs. Thus, the difference in overall care cost using an BD stent or a plastic stent care pathway was €10.75.

Conclusions Biodegradable pancreatic stents may have patient care benefits over plastic pancreatic stents, including removing a need for repeat hospital visits and potential further endoscopic interventions. Despite the significantly higher item costs for biodegradable pancreatic stents, the overall costs (taking account of both patient and healthcare expenditure) are similar.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP607V The Apollo Overstitch suturing system is the last chance for rectal bleeding after complicated Endoscopic Submucosal Dissection (ESD)

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DOI 10.1055/s-0044-1783896

Abstract Text A 54-year-old woman underwent endoscopic submucosal dissection (ESD) for a 3 cm Laterally Spreading Tumor (LST) of the mid-proximal rectum. The ESD was complicated by post-operative bleeding episodes. Several endoscopic techniques have been unsuccessfully used to control and stop bleeding as endoclips placement (mechanical hemostasis), fibrin glue injection (injective hemostasis), and hemostatic powder- Hemospray (Cook Medical Inc.; Bloomington, Ind). We performed endoscopic suturing with the Apollo Overstitch achieving instantaneous and long-lasting bleeding control from the eschar. This suture system is safe, effective and could be successfully used when all other methods of endoscopic hemostasis had previously failed

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/1734c985-9c6e-437a-a8b0-cef5f3a54dfe/Uploads/13821_ESD_bleeding%20(only%20video).mp4

Conflicts of interest Dr Barbaro: consulting fees for OlympusDr. Boskoski: Consultancies Apollo Endosurgery Boston Scientific Cook Medical Pentax Medical EndoTools Microtech ERBE Elektromedizin Research Grants Apollo Endosurgery Erbe Elektromedizin EndoTools Sponsored Lectures Cook Medical Boston Scientific Apollo Endosurgery Microtech Olympus Scientific & Clinical Advisory Board Member Nitinotes ltd Myka Labs Inc

eP608 The Impact of Cholangioscope Diameter Variation on Cholangioscopy Outcomes: A Retrospective Comparative Study

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Aims Digital single-operator cholangioscopy (DSOC) stands as an invaluable diagnostic and therapeutic instrument, offering direct visualization of the biliary ducts. The use of cholangioscopes with higher diameter may raise concerns regarding patient discomfort and safety. Smaller diameter cholangioscopes could offer enhanced maneuverability and decreased risk of adverse events, improving procedural success rates. The aim of this study is to compare the impact of cholangioscope diameter variation on cholangioscopy outcomes, with a focus on procedure success rates.

Methods A retrospective, comparative study performed in patients who underwent either diagnostic or therapeutic DSOC from January 2021 to August 2023 were retrospectively collected. A $P < 0.05$ was considered statistically significant.

Results A total of 128 procedures were performed in 119 patients. Median age was 62.5 (44 – 71) and 46.1 % were female. 52.3 % of procedures were performed with the 9.3F cholangioscope, 53 (41.4 %) were performed with the 11.1F, and 6.2 % procedures were performed with the 7F cholangioscope. The 9.3F cholangioscope was used mainly for diagnostic procedures (61.2 %) when compared to the 11.1F (39.6 %) ($P = .01$). The most common diagnostic indication was indeterminate biliary stricture (9.3F: 31.3 % vs 11.1F: 13.2 %) ($P = .01$). Most lesions were in the common bile duct (CBD). Two procedures performed with the 9.3F scope switched to a lower caliber scope (7F) to surpass the lesions, while 4 procedures performed with 11.1F required the application of a 9.3F to surpass the lesions and finish the procedures ($P = .176$). The 9.3F allowed the evaluation of the intrahepatic ducts in 6 procedures. More therapeutic procedures were performed with the 11.1F cholangioscope (60.4 %), while 38.8 % with the 9.3F. The main indication was lithotripsy. Most procedures with a stone size > 20mm were performed with the 11.1F (61 %) ($P = .01$), with a total removal of stones of 64.5 %. Technical success was higher in the 9.3F (97.0 % vs 90.6 %), clinical success was higher in the 11.1F (96.2 % vs 94.0 %). All cases performed with the 7F cholangioscope were diagnostic, 7/8 procedures with 7F allow a complete evaluation of the intrahepatic ducts, 1/8 had a complete post-surgical CBD stenosis, and achieved a 100 % technical and clinical success rate. [1–2]

Conclusions Cholangioscope diameter should be tailored to the specific diagnostic or therapeutic needs. While the 9.3F cholangioscope is more suitable for diagnostic procedures and has a higher technical success rate, the 11.1F is preferable for therapeutic interventions, particularly for larger biliary stones where higher caliber lithotripter is required. The 7F cholangioscope presents an effective alternative for complete intrahepatic duct evaluations.

Conflicts of interest Carlos Robles-Medranda is a key opinion leader and consultant for Pentax Medical, Steris, Medtronic, Motus, Micro-tech, G-Tech Medical Supply, CREO Medical, EndoSound, and mdconsgroup. All other authors have nothing to declare.

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eP609 Assessing the Impact of Fentanyl on Hypoxemia Risk in Upper Gastrointestinal Endoscopy: A Comparative Analysis

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Aims Sedation plays a pivotal role in ensuring patient comfort and procedure efficacy during upper GI endoscopy. However, the choice of sedative agents is a delicate balance between achieving adequate sedation and minimizing adverse events, particularly hypoxemia. Currently, there are few commonly used sedation protocols. This research aims to compare hypoxemia risk between 2 commonly used protocols.

Methods We conducted a retrospective analysis at Sheba Medical Center, focusing on adult patients who underwent upper gastrointestinal (UGI) endos-

copy between January 2020 and October 2023. Our study specifically targeted patients who received one of two anesthesia regimens: a combination of fentanyl, midazolam, and propofol, or midazolam and propofol without fentanyl. Inclusion criteria were adult patients receiving these specific regimens during UGI endoscopy within the study period. We excluded patients with incomplete data from the analysis. We excluded patients with incomplete data. Data included demographics, clinical assessment scores (ASA and Malampati), medication administration details, and oxygen saturation levels recorded during the procedure. We used the Chi-square test to compare categorical variables and independent t-tests for continuous variables. To assess the association between fentanyl administration and the incidence of hypoxemia (defined as oxygen saturation measurement below 90 %), we conducted a logistic regression analysis. This model adjusted for potential confounders including age, ASA score, and Malampati score, providing adjusted odds ratios (aORs) with 95 % confidence intervals and p-values

Results In our cohort of 14,776 patients undergoing UGI endoscopy, 64.7 % (n = 9,561) were administered fentanyl along with midazolam and propofol, while the remaining 35.3 % (n = 5,215) received only midazolam and propofol. The median age in the fentanyl group was 57.3 years (IQR 40.2 – 69.9), significantly younger than the non-fentanyl group at 69.2 years (IQR 56.8 – 76.4, p < 0.001). Both groups had a median ASA score of 2.0 (IQR 2.0 – 2.0) and a median Malampati score of 2.0 (IQR 2.0 – 2.0). The incidence of hypoxemia was higher in the fentanyl group at 26.5 %, compared to 23.9 % in the non-fentanyl group (p < 0.001). A logistic regression model adjusted for age, ASA score, and Malampati score revealed that the use of fentanyl was associated with an increased likelihood of hypoxemia, with an aOR of 1.3 (95 % CI: 1.2 – 1.3, p < 0.001).

Conclusions Our study provides compelling evidence that the addition of fentanyl to sedation protocols in upper GI endoscopy is associated with an increased risk of hypoxemia. This increased risk remained significant even after adjusting for potential confounders such as age, ASA score, and Malampati score. The increased risk associated with fentanyl,a commonly used sedative, suggests a need for revised sedation protocols or enhanced monitoring strategies to mitigate this risk. [1]

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP610 Safety of cholangio-pancreatoscopy: a single-center cohort study

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DOI 10.1055/s-0044-1783899

Aims Indeterminate biliary strictures are challenging to diagnose through traditional cross-sectional imaging. Single operator peroral cholangioscopy (SOPC) has improved the diagnostic yield allowing direct visualization and targeted biopsies, but previous studies have reported a potential higher risk of complications. However, most published series include potential sources of heterogeneity, such as the involvement of multiple operators, the inclusion of both cholangioscopy and pancreatoscopy, and a blending of different potential indication for the ERCP. The assessment of safety in SOPC still remain a poorly investigated issue in hepatobiliary endoscopy. The aim of the study is to assess the rate complications in patients undergone SOPC at a tertiary reference center.

Methods This is a single-center retrospective cohort study involving consecutively collected patients. The complication rate was evaluated by a third independent reviewer and recorded in a quality register database. Inclusion criteria encompassed patients diagnosed with radiologically indeterminate biliary strictures, sclerosing cholangitis, or suspected biliary cancer. All procedures were exclusively performed by two expert operators.

Results Between December 1st, 2019, and December 31st, 2022, we performed 70 SOPCs, with 58.6 % in females. According to the American Society of Anesthesiologists score (ASA score), patients were preoperatively classified as follows: ASA1, n = 7 patients (10 %); ASA2, n = 42 patients (60.0 %); and ASA3, n = 21 patients (31.0 %). Overall, 15 patients (21.4 %) preoperatively suffered from diabetes, 24 (34.2 %) from ischemic heart disease, 8 (11.4 %) from chronic obstructive pulmonary disease, and 5 (7.1 %) displayed a higher risk of bleeding complications (due to the use of anticoagulants or spontaneous increased values of INR). Most patients (n = 66, 94.2 %) received a preoperative dose of antibiotic prophylaxis, while 1 patient (1.4 %) was already on antibiotic treatment. Overall, 45 patients (64.2 %) received prophylaxis for acute pancreatitis with a single dose of post-operative suppository of diclofenac 100 mg, 18 patients (25.7 %) had a native papilla and received endoscopic sphincterotomy, and in 12 patients (17.1 %), cannulation was difficult according to the 5-5-1 rule. From an operative point of view, 22 patients (31.4 %) underwent cannulation of the main pancreatic duct, 19 patients (27.1 %) received endoscopic dilatation of a stricture, and 12 patients (17.14 %) received pancreas stenting. A 30-day post-operative complication occurred in 9 patients (12.8 %), including 3 patients (4.2 %) who developed mild pancreatitis, and 1 patient (1.4 %) developed post-operative cholangitis. No patient developed post-operative bleeding or perforation, and there were no cases of intensive care unit hospital stay.

Conclusions The current study supports the feasibility and safety of SOPC as a diagnostic tool for investigating indeterminate biliary strictures. [1–3]

Conflicts of interest Roberto Valente is Consultant to Boston Scientific, Urban Arnelo is consultant to Boston Scientific, and to Ambu.

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eP611 Underwater technique reduces intraprocedural pain in colorectal endoscopic submucosal dissection performed under conscious sedation

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Aims Endoscopic submucosal dissection (ESD) allows en-bloc and R0-resection of colorectal lesions with suspected limited submucosal invasion. Patients' discomfort could represent a significant challenge to deal with when performing colorectal ESD (c-ESD). Adequate pain control has a pivotal role for patients' safety and procedure success, especially when ESD is performed under conscious sedation. As far as we know, no data are available about predictive factors of discomfort and technical difficulty in c-ESD. Water assisted colonoscopy has become an established alternative technique to CO_2-insufflation, able to decrease insertion pain, improve patients' tolerance and allow to complete a difficult colonoscopy. The aim of our study was to identify intraprocedural discomfort determinants during c-ESD.

Methods We retrospectively enrolled 234 patients who underwent colorectal conventional, hybrid (H-ESD) or underwater ESD (U-ESD) at A.S.M.N. Reggio Emilia, Italy, between January 2018 and March 2023. Patients received intravenous (IV) conscious sedation with midazolam and fentanyl. Pre-, intra- and post-procedural data were collected, as well as data regarding drug dosages and intraprocedural discomfort, evaluated according to the modified Gloucester Scale (GS) every 20min and whenever patients reported pain. Patients were divided in group A (no or minimal discomfort – GS 1-2) and B (mild, moderate or severe discomfort – GS 3-4-5). Patients with mild discomfort were administered an additional dose of conscious sedation. In case of persistent pain IV paracetamol 1g was used. Patients with moderate or severe discomfort received an additional dose of conscious sedation and IV paracetamol 1g. [1–4]

Results Intraprocedural pain was associated at univariate analysis with lesion size ≥ 40mm (OR 1.79, 95 %C.I 1.02–3.14), severe fibrosis (OR 1.90, 95 %C.I 1.03–3.49) and U-ESD (OR 0.40, 95 %C.I 0.21–0.76). Multivariate analysis confirmed lesion size ≥ 40mm (OR 2.36, 95 %C.I 1.29–4.31), severe fibrosis (OR 1.95, 95 %C.I 1.03–3.71) and U-ESD (OR 0.035, 95 %C.I 0.18–0.69) as predictive factors of intraprocedural pain. En-bloc resection and curative resection rates were respectively of 88.7 % and 79.9 %. Among all outcomes considered, only procedure time was influenced by intraprocedural pain, as it was significantly longer when discomfort was present, compared to the absence of pain (74.7 ± 46.2 min vs 57.1 ± 39.4 min; p = 0.002). En-bloc resection rate, adverse events rate, and switch to H-ESD were not significantly influenced by intraprocedural pain.

Conclusions U-ESD can decrease intraoperative discomfort and improve tolerance to the exam, straightening the sigmoid colon and avoiding loops formation, with excellent results in en-bloc and R0-resection rates. Lesion size and severe fibrosis are associated with intraprocedural pain. The adoption of U-ESD could lower intraprocedural discomfort and decrease the need of sedation, limiting also possible drug-related collateral effects.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP612 Endoscopic full-thickness resection (eFTR) alone vs. combined EMR and endoscopic full-thickness resection (hybrid eFTR) for the treatment of neoplastic colorectal lesions: a retrospective comparative study

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Aims eFTR is an established procedure for endoscopic resection of non-lifting lesions. A limitation of this technique is the size of the lesion due to the size of the FTRD cap, especially in cases of submucosal scaring by previous treatment. The combination of eFTR with EMR (hybrid eFTR) represents an extension of the method. However, there are still limited data about the efficacy and safety of hybrid eFTR and large comparative studies are lacking.

Methods The primary endpoint of our study is the comparison of the recurrence rate of eFTR and hybrid eFTR in neoplastic colorectal lesions (adenomas or carcinomas). Secondary endpoints are the technical success, the macroscopical complete resection rate, and the complication rate. We conducted this single-center, retrospective analysis of patients with colorectal neoplasia treated with eFTR or hybrid eFTR from November 2016 to November 2023 at the University Hospital in Marburg, Germany.

Results From 11/2016 to 11/2023, a total of 155 patients were treated with eFTR in our center, 20 of whom with benign subepithelial lesions and rectal neuroendocrine tumors were excluded from the analysis. 74 patients underwent eFTR alone and 61 patients underwent hybrid eFTR. As expected, lesions were larger in the hybrid eFTR group than in the eFTR group (median 25 vs. 15 mm). In the eFTR group there were fewer adenomas (55.7 % vs. 70 %) and more carcinomas (44.3 % vs 30 %) than in the hybrid eFTR group. The rate of macroscopical complete resection (eFTR 87.1 % vs. hybrid eFTR 86 %) and technical success (eFTR 82.9 % vs. hybrid eFTR 84 %) were comparable between both groups. Snare dysfunction was the most common technical problem. The complication rate was higher in the hybrid eFTR group (18 %) than in the eFTR (8,6 %), however these were mostly minor complications (peri-interventional bleeding). 2 out of 3 perforations in the eFTR group and 1 out of 4 perforations in the hybrid eFTR group required surgery. After a median follow-up period of 5 months in the eFTR group and 7 months in the hybrid eFTR group, the recurrence rate was 8.6 % after eFTR and 22 % after hybrid eFTR. Most recurrences could be treated endoscopically (3 out of 6 recurrences in the eFTR group and 7 out of 11 recurrences in the hybrid-eFTR group).

Conclusions Hybrid eFTR is safe and effective for the resection of larger, non-lifting neoplastic colorectal lesions, although the recurrence rate after hybrid eFTR is higher in our cohort. The size and the complexity of the lesions may explain the higher recurrence rate; however, the endoscopic alternatives are very limited.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP613 Haemocer Plus in the treatment and prevention of lower GI post-resectional bleeding: prospective multicenter registry

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DOI 10.1055/s-0044-1783902

Aims GI bleeding associated to endoscopic procedure is defined as clinical evidence of bleeding and a drop in hemoglobin of ≥ 2g/dL on the day of the procedure (early bleeding) or up to 14 days after the procedure (delayed bleeding). GI bleeding is a common complication of endoscopic procedures, such as endoscopic mucosal resection (EMR) and endoscopic sub mucosal dissection (ESD). Endoscopic treatments encompass injection therapy (epinephrine, sclerosing agents), mechanical therapy (hemoclipsplacement),andthermaltherapy(monopolarandbipolarcoagulation,argonplasma coagulation, or heat probe). New endoscopic hemostasis modalities (topical hemostatic agents) are emerging as possible alternative endotherapies for primary hemostasis when bleeding is refractory or not amenable to standard endoscopic hemostasis therapies. We aim to establish a multicenter, observational registry to collect data related to the use of HaemoCer PLUS for the primary prevention of delayed bleeding linked to endoscopic resectional procedures of the lower GI tract. Primary aim: prevention of delayed bleeding after colonic EMR or ESD larger than 30 mm. Secondary aim: evaluation of possible adverse events (AEs) related to the application of the powder.

Methods We enrolled all adults patients undergoing colorectal ESD or EMR for lesions bigger than 30 mm where HaemoCer PLUS has been used will be included.

Results Preliminary results of first forthytwo enrolled patients: 23 male; mean age 75.2 years old (51-88). Mean diameter of lesions was 63 mm (35-120 mm). During procedure only four major bleeding occurred treated with hemostatic forceps. No mechanical therapy was applied. In all patients hemostatic powder was applied when there was no visible bleeding. Four patients underwent procedure with ongoing antiplatelet therapy. We encountered only two bleeding, in day 1 post-procedure. Of these, one patient who undergone procedure with ongoing antiplatelet and anticoagulant therapies, due to cardiovascular and hepatic comorbidities; the other had no ongoing or past therapy.

Conclusions Even if this is a preliminary results report, this hemostatic powder seems to be a valuable additional therapy to prevent bleeding in patients with large colonic endoscopic resection with ongoing antiplatelet therapy. Combined antiplatelet and anticoagulant therapy, conjunct to several comorbidities still remain a difficult to manage situation in daily practice.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP614V Retrograde Gastroesophageal Intussusception (with Video)

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DOI 10.1055/s-0044-1783903

Abstract Text Retrograde gastroesophageal intussusception is a part of prolapse gastropathy syndrome (PGS) and is an invagination of part of the gastric mucosa into the lower esophagus. This results in partial or complete esophagogastric junction outlet obstruction. PGS is rare, with a reported incidence of 0.4-2.4 %. The exact mechanism underlying PGS is unclear, although various factors have been proposed including relaxation of the gastroesophageal junction (GEJ), gastric mucosal redundancy, retrograde gastric peristalsis. Our case illustrates a rare presentation of PGS involving entrapment of the gastric fundus in a pseudodiverticulum obstructing the GEJ. Though surgery was prohibitively risky due to comorbidities, endoscopic gastropexy serves as a good treatment option.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/4f7cdeb6-f98a-49ef-ab8c-bb0174faab60/Uploads/13821_Einav_Katz.mov

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP615V Gastrointestinal endoscopy training on human cadavers prepared with novel anatomical technique

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DOI 10.1055/s-0044-1783904

Abstract Text Gastrointestinal (GI) endoscopy training involves several years of practise starting with mechanical and virtual reality devices, and animal-based models. Though human cadaver-based models could mean a more realistic experience, their quality and reproducibility have limited their importance. A new generation soft embalming preparation technique allowed us to preserve the cadavers and their GI tract in a superior quality compared to previous techniques. The tract remained similar to the one in a living individual. Later these models can be reused. The video shows the testing process of the diagnostic upper and lower GI endoscopy of the cadavers. We arranged a hands-on course for 7 gastroenterology trainees who felt their endoscopy skills greatly improved during the 2x3 hours session. Our new human cadaver-based endoscopy model may play a role in future GI endoscopy training.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/5c4dea3c-0704-49c0-9a5a-850202ca6ba3/Uploads/13821_Cadaver_Endoscopy_2.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP616 Efficacy and safety of endoscopic internal drainage using double pigtail stents for the treatment of postsurgical anastomotic leaks of the upper gastrointestinal tract

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Aims The optimal endoscopic treatment of postsurgical leaks (PSL) remained to be determined. Endoscopic internal drainage (EID) using double pigtail stents (DPS) might be an option.
Primary outcome was clinical success. Secondary outcomes included technical success, endoscopic sessions required, time until resolution and adverse events.

Methods Multicenter retrospective case series. Clinical success was defined as endoscopic or radiological confirmation of PSL closure and lack of need for surgery or other endoscopic treatment.

Results 36 patients were included, median age of 65.5 years (IQR 49.7-73.7), 25 patients with malignant and 11 patients with previous bariatric surgery.
PSL occurred after a median of 4 days (IQR 4-14) following the index surgery. Twenty-two PSL had thoracic localization and 14 patients had an abdominal localization. The leak size and collection size were 8 mm (IQR 4-10) and 40 mm (IQR 27-54), respectively. Previous closure with self-expanding metal stent had been attempted in 8 patients (22.2 %). During the index procedure, 11 patients (30.6 %) were admitted to the ICU. The technical and clinical success rate was achieved in 100 % and 77.8 %, respectively. The time until clinical success was 23.5 days (IQR: 12.5-53-5). 1.5 endoscopic sessions (IQR 1-3) and insertion of 2 (IQR 1-2) DPS. Following the index procedure, patients were discharged after a median of 27 days (IQR 11-39). Additional endoscopic procedures were required in 13 patients (36.1 %): SEMS insertion (n = 7), balloon dilation (n = 3), and saline lavage (n = 3). Additionally, 14 patients required percutaneous drainage and 4 patients required surgical treatment.
No intraprocedural complications were observed. Although long-term complications were identified in 7 patients (19.4 %) (stent migration n = 4, intraluminal stenosis n = 2, and postprocedural hemorrhage n = 1).

Conclusions EID using DPT is an effective option for different upper gastrointestinal tract PSL with clinical success in nearly eighty percent.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP617V “Clip and line" technique for a mucosal defect closure

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DOI 10.1055/s-0044-1783906

Abstract Text During gastric submucosal dissection (ESD) of the anterior wall side, a perforation of the muscle layer (13-15 mm) with exposure of the serosa was found. Among different techniques, the "clip and line" technique was chosen, with the placement of four 11-mm endoclips. For a single episode of melena on the following day, the patient underwent further endoscopic examina-

tion. Although in the presence of a bleeding source, no further perforation was found. No long-term complications in subsequent endoscopic controls at 3 and 9 months. The "clip and line" technique could play a significant role in endoscopic procedures complicated by perforation, being a widely available and easy-to-approach method.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/d1c62dff-6b00-464c-a70f-a0a95f9427fb/Uploads/13821_Line.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP618 Clinical outcome from endoscopic resection of early oesophagogastric cancer at a tertiary referral centre in the UK

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DOI 10.1055/s-0044-1783907

Aims We reviewed the technical and oncological outcome from endoscopic resection of suspected early oesophagogastric cancer at the University Hospitals of North Midlands.

Methods This is a cohort study with retrospective analysis of prospectively collected data. Descriptive analysis was used to quantify the study outcomes. Endoscopic resections of suspected oesophagogastric cancer have been performed at our tertiary referral Oesophagogastric Cancer Centre for over 7 years. A retrospective analysis of case notes was undertaken. Data were collected for patient demographics and indications for endoscopic resection. The outcome measures were procedural success, pathological outcome and 3 years follow-up data on recurrent disease. [1]

Results A total of 176 patients underwent 176 endoscopic procedures between 2015 and 2021. The M:F ratio was 3.1:7. Mean patient age was 70 years (range 32-94 years). Indication for endoscopic resection included Barrett's with biopsy proven carcinoma 25 % (n = 44), visible dysplastic Barrett's lesions 45 % (n = 79), lesions at GOJ, cardia and stomach were 23 % (n = 40), 2 % (n = 4) and 3 % (n = 5) respectively. Other indications 2 % (n = 3). 93.8 % (n = 165) were performed as day-case procedures and mean duration was 80 minutes (range 15-300 minutes). 65 % (n = 115) had Endoscopic Mucosal Resection (EMR) and 35 % (n = 61) had Endoscopic Submucosal Dissection (ESD). 80 % (n = 49) of ESD procedures had en bloc resection. Curative resection was defined as a combination of technical success (lateral and deep margin clearance) and favourable histopathology as per published literature for endoscopic resection of superficial neoplasia (ref: Endoscopic Submucosasl Dissection: ESGE Guideline) following review at the tumour board meeting. 20 patients had symptomatic oesophageal stricture that required treatment. 1 patient had perforation treated conservatively and 1 patient died the day after the procedure from Cerebro Vascular Event on stopping clopidogrel. 77 % (n = 136) had curative resections while 22 % (n = 39) were noncurative and 1 resection was abandoned. At 3-year f/u, recurrent disease was identified in 19 % (n = 26) patients. 35 % of T1b cancers (15/43) and 15 % of T1a cancers (11/73) had recurrent disease.

Conclusions In our experience, endoscopic resection of superficial gastroesophageal neoplasia is safe with low risk of complications and low risk of neoplasia recurrence at 3 year follow-up.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP619V EUS-duodenojejunostomy (EUS-DJ) for gastric-outlet obstruction (GOO) in gastric linitis plastica

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Abstract Text Introduction: EUS-GE is superior to duodenal stents for the palliation of GOO. Gastric linitis plastica hinders EUS-GE.

Case: Extensive gastric adenocarcinoma resulting in GOO due to infiltration of the duodeno-jejunal flexure. After extensive attempts, the duodenal stricture is cannulated with a guidewire. A nasobiliary tube is left in place, and the linear echoendoscope is advanced in parallel. After fluid distention of the jejunal lumen, a 20x10mm LAMS is placed from the duodenum into the jejunum. [1–3]

Comment: EUS-DJ is typically performed for biliary access after surgical bilio-enterostomy Our case highlights EUS-DJ for GOO in the setting of corporal linitis plastica involving the 3rd duodenum in native upper GI anatomy

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/ac8fc0cf-d2a5-4c3b-bcf3-a952a800f26c/Uploads/13821_EUS-DJ.mov

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP620 Participation rate of the target population in colorectal cancer screening – results from the evaluation of the National Colorectal Cancer Screening Program in the Czech Republic

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Aims The National Colorectal Cancer (CRC) Screening Program was launched in the Czech Republic in 2000 as an opportunistic screening program. In 2014, this program was transformed into a population-based program by introducing an address invitation of the target population. This led to a significant increase in the participation rate of the target population in CRC screening. Due to the covid pandemic, overall participation significantly dropped during years 2020 and 2021. The main aim of the study was to evaluate the level of participation of the target population in the CRC screening program. Other objectives included evaluating the effectiveness of screening tests (FOBT, screening colonoscopy, FOBT-positive colonoscopy).

Methods The evaluation used the registries of the National Health Information System, the Registry of Preventive Colonoscopies, and data on population demographics managed by the Czech Statistical Office. The analysis was carried out on available data up to 2022. Basic indicators were calculated in accordance with international recommendations, which were adapted for the Czech environment.

Results Coverage of the target population with CRC screening tests in the Czech Republic (4.1 million people over 50 years of age) varied from 43.0 % (year 2012) increasing to the maximum 53.1 % (year 2016) and decreasing to

47.8 % (year 2022). By the end of 2022, FOBTs had been performed in 1,490,661 individuals (36 %), screening colonoscopies in 109,200 individuals (2.6 %), diagnostic colonoscopies in 283,462 patients (6.8 %), and diagnostic FOBTs in 97,505 (2 .4 %) individuals. The positivity of the screening FOBT reached 10 % (increase from 7 % in 2019), which led to an increase in the waiting time for a colonoscopy to an average of 70 days. The overall compliance for follow-up FOBT positive colonoscopy was 60-70 %. The proportion of detected colorectal adenomas and carcinomas in the screening colonoscopy was 31 % and 1 %, respectively, and in FOBT positive colonoscopy 45 % and 3 %, respectively.

Conclusions The evaluated indicators show that despite the positive impact of the screening program on the participation rate, it still has its opportunities for improvement, and therefore it is essential to continue its monitoring to improve the quality of the whole program.

Supported by the educational projects MO1012 and Cooperatio.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP621V An old tool for a new portal hypertension entity: innovative Application of tips in addressing complications of psvd and enabling Curative intervention for high-grade dysplastic sub-cardial lesion: a Case report

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DOI 10.1055/s-0044-1783910

Abstract Text A 78-year-old male diagnosed with oxaliplatin-associated PSVD presented at our unit for variceal bleeding. Endoscopic band ligation was employed fortreatment. Initial assessment showed a portal pressure gradient (PPG) of 21 mmHg. Subsequentgastroscopy revealed recurrent high-risk gastro-esophageal varices (GOV) and an adjacent mucosallesion histologically confirmed as focal high-grade dysplasia. In consideration of very high risk of endoscopic submucosal dissection (ESD)-related bleeding, a TIPS was positioned between the righ hepatic vein andintrahepatic branch of the right portal vein. Post-procedural PPG was 5 mmHg. TIPS was well-tolerated, with only two episodes of grade I hepatic encephalopathy reported. Two months later, nosigns of PH were endoscopically detected and the ESD was successfully performed, resulting in thecomplete removal of the sub-cardial lesion without complications.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/6b169863-ea87-40ff-89a5-985bcee21fa6/Uploads/13821_esge.mp4

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP622 Efficiency and safety of self-expandible metallic stent (SEMS) placement in Crohn's disease strictures

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DOI 10.1055/s-0044-1783911

Aims Stricture formation is a common complication in Crohn's disease (CD) in both primary and anastomotic localizations and is a cause of significant morbidity and surgery. Endoscopic balloon dilation (EBD) is an established modality for non-surgical treatment of longer strictures limited by temporary effect and risk of complications, therefore new endoscopic modalities are needed.

Methods All cases of SEMS placement in Crohn's disease patients between November 2020 and October 2023 in a single center were included. Demographics, disease characteristics, concomitant medication and procedure outcomes with associated complications were analyzed.

Results We placed 24 stents in 22 patients – 14 males and 8 females. Mean age at time of procedure was 49.5 ± 13.1 years and disease duration 25.6 ± 12.6 years. Localizations included 2 primary strictures (pylorus and sigmoid colon) and 22 ileocolonic anastomoses. Previous intervention including EBD and/or endoscopic stricturotomy at the site of stent placement was performed in 20/24 cases. The majority of stents were Hanarostent HRC20 of 6 or 8cm in length, the other used stents included Hanarostent DPDL and BCF stents and Niti-S enteral colonic covered stent. Stent was endoscopically removed in 83.3 % of cases. There were 3 cases of spontaneous migration and 1 surgical resection of the stent site. The mean duration of stent placement before extraction was 7.2 ± 1.5 days. 70.8 % of strictures were not passable for the scope before stent placement, whereas 91.3 % were passable after stent extraction. Follow-up endoscopy was performed in 13 cases after median of 211 days (23-983) and the lumen was passable for the scope in 53.9 % of cases. There were 2 cases of complications, one of which included surgery for suspected perforation.

Conclusions Stent placement is a feasible alternative in refractory Crohn's disease strictures with mild complication rate especially in patients after repeated resections with imminent short bowel syndrome or at unfavorable site such as duodenum with promising results warranting further research.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP623 Underwater Endoscopic Mucosal Resection (UEMR) is effective and safe in real-life day-to-day clinical practice in a large German university hospital

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DOI 10.1055/s-0044-1783912

Aims to study the efficacy and safety of underwater emr for colonic polyp resection in a setting of daily clinical practice of a German university hospital

Methods Clinical and procedural data on patients with UEMR for colonic polyps from January 2020 until October 2023 were collected retrospectively and analyzed using descriptive statistical methods.

Results A total of 109 polyps were resected with UEMR, with sizes ranging from 5 mm to 50 mm. Of these, 36/109 polyps (33 %) were between 15-20 mm and 16/109 polyps were between 21-25 mm (14.7 %). Only 10/109 (9.2 %) were between 30-50 mm. Most polyps were classified as NICE II polyps (52/109, 47.7 %) and JRS 0-IIa (38/109, 35 %). Among the 109 polyps, 6 were recurrent polyps. Endoscopic complete resection was reached in 107/109 polyps (98.2 %); only in 2 polyps was the resection deemed to be endoscopically incomplete. All but one recurrent polyp could be completely resected with UEMR. En-bloc resection was achieved in 83/109 polyps (76.1 %), and piece-meal in 26/109 polyps (23.9 %). A histological R0 was reached in 90/109 polyps (82.6 %); a non-R0 resection was the case in only 5/109 polyps (4.6 %). In 13 polyps (12 %), an R0 was possible but not certain due to strong fragmentation. The most frequent histological result was tubular adenoma in 59/109 polyps (54.1 %) and sessile serrated lesions in 22/109 polyps (20.2 %). Among the 109 polyps, carcinoma was found in 10 polyps (9.2 %). Most adverse events were peri-interventional bleeding in 15 polyps (13.8 %), treated endoscopically during resection. Among these, one bleeding needed an emergency operation to manage the bleeding. Only 2 (1.8 %) delayed bleeding occurred, and 1 perforation (0.9 %), which was managed with a cap-mounted clip. A follow-up was available in 41/109 polyps (37.6 %) after one to twenty-three months post-resection. Two follow-ups were available in 17/109 (16 %) ranging between six and fifteen months after the first follow-up. Three follow-ups were available in 10/109 (9.2 %). A recurrence was seen only in 1 patient at the second follow-up 16 months after the index resection. [1]

Conclusions In our clinical practice, UEMR has proven to be a safe and effective procedure and could be seen as a better alternative to conventional EMR with

a low recurrent and adverse event rate. Further dissemination of this technique should be promoted to improve quality of colonic polyp resection.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP624 The long term efficacy of argon plasma coagulation (APC) ablation of oesophageal inlet patch in patients with globus symptoms

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DOI 10.1055/s-0044-1783913

Aims The oesophageal inlet patch is an area of heterotopic gastric mucosa at or just distal to the upper oesophageal sphincter. This can be symptomatic and lead to dysphagia, chronic globus sensation and or reflux symptoms. We aimed to determine the long term effects of argon plasma coagulation (APC) ablation of oesophageal inlet patch in patients with globus symptoms.

Methods We followed up patients between 2018 and 2023 (n = 15) who received APC ablation therapy of oesophageal inlet patches with globus symptoms. The follow up ranged from 6 months to 60 months (median follow up – 54 months). Symptoms were assessed by telephone consultation (using visual analogue scale).

All the procedures were done under sedation (midazolam and fentanyl). The inlet patch was raised with saline or EMR solution (to minimise the risk of APC perforation) in 13 patients. This was followed by pulsed APC ablation. Early on, 2 patients had APC ablation without submucosal lift.

Results 15 patients (9 females and 6 males) with inlet patches had globus symptoms. The median patient age was 52 years. 80 % of patients (12 patients) reported significant improvement in symptoms following APC ablation therapy. 3 patients had no improvement.

1 patient had APC related microperforation which was immediately recognised and clipped. This patient did not have submucosal lift. Subsequently, all the patients have had submucosal lift and no complications were noted.

Conclusions Our study showed the long term efficacy and safety of submucosal saline/EMR solution lift followed by APC ablation in alleviating globus symptoms in patients with oesophageal inlet patch.

This study reinforces the need for careful examination of proximal oesophagus ,especially in patients presenting with symptoms suggestive of oesophageal inlet patch.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP625 Severe oesophageal hyperkeratosis: A case series

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DOI 10.1055/s-0044-1783914

Aims To present a case series of severe, diffuse oesophageal hyperkeratosis and emphasise the strong association of this condition with underlying oesophageal squamous cell carcinoma (SCC).

Methods We describe three cases that were referred to our centre from the Channel Islands over an 8-month period. This case series illustrates the clinical presentation, outcomes, and the endoscopic challenges with the diagnostic and therapeutic aspects of this rare condition

Results All three patients were from the Channel Islands, in their mid-late 60s and had a history of smoking. Presenting symptoms were dysphagia in two patients, and retrosternal discomfort in one. At oesophagogastroduodenoscopy (OGD), mid-oesophageal severe, circumferential and exophytic hyperkeratosis with luminal narrowing was observed. In two cases that presented with dysphagia, endoscopic dilatation with bougie to 12mm was attempted but failed to result in any significant symptomatic relief. Although all three cases had repeated OGD examinations (range 2-4 procedures) at our centre with multiple biopsies (median 11, range 6-19 biopsies per procedure) taken from the hyperkeratinised segment, histopathology failed to reveal definite evidence of dysplasia or malignancy, except in one case where suspicious (but not definite) features for malignancy were seen. Endoscopic mucosal resection (EMR) was also performed in two cases but only superficial sampling could be achieved due to fibrosis.

Given the non-resolving symptoms and uncertainty of underlying diagnosis, oesophagectomy was offered to all patients. The two patients who presented with dysphagia elected to proceed to oesophagectomy: Surgical resection specimens demonstrated well-differentiated SCC (T1 N0 and T3 N0) within the hyperkeratinised segment. The third patient declined initial oeosphagectomy. Subsequent follow up surveillance CT demonstrated new regional lymphadenopathy with FDG-avidity on CT-PET. Biopsy of a hilar lymph node confirmed metastatic SCC. The patient underwent chemoradiotherapy.

Conclusions This case series highlights the strong link of squamous cell carcinoma with severe diffuse oesophageal hyperkeratosis and the need to have a high index of suspicion. Given the high risk of SCC and the low sensitivity of endoscopic biopsies in oesophageal hyperkeratosis, we strongly advocate early oesophagectomy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP626 Factors affecting the diagnostic accuracy of EUS-FNA for pancreatic and peripancreatic lesions: a single-center experience

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DOI 10.1055/s-0044-1783915

Aims Endoscopic-ultrasound fine-needle-aspiration (EUS-FNA) has become the standard of care for the diagnosis of pancreatic and peripancreatic tumors, and several factors are associated with its diagnostic accuracy. The aim of this study is to evaluate factors that are associated with the diagnostic accuracy of EUS-FNA in our center.

Methods Data from patients with pancreatic and peripancreatic lesions who underwent EUS-FNA were collected retrospectively. The associations between mass location, mass size, needle type, number of needle passes, the presence of a biliary stent and the cytology result were analyzed. [1]

Results A total of 219 patients underwent 221 EUS-FNA procedures. The overall accuracy of EUS-FNA was 85.5 % (189/221). Mass location on the head of the pancreas was associated with a higher diagnostic accuracy ($p < 0.05$). Two or more needle passes were statistically significantly correlated with higher diagnostic accuracy ($p < 0.05$) compared to single-pass EUS-FNA. Mass size, needle type and presence of a biliary stent did not reach statistical significance for the diagnostic yield of the cytology. A subgroup of 49 patients (22 %) had lesions in the corpus or the tail of the pancreas. In this subgroup, tumor size greater than 3 cm was statistically significant correlated with a diagnostic cytology result ($p < 0.05$).

Conclusions The results of this study suggest that 2 or more needle passes and lesions in the head of the pancreas are associated with higher diagnostic accuracy of EUS-FNA in our center.

Conflicts of interest Authors do not have any conflict of interest to disclose.

Endoscopy 2024; 56: S1–S503

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eP627V Cholecystoscopy for clip-closure of the gallbladder wall during elective internalization of percutaneous cholecystostomy (PC)

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DOI 10.1055/s-0044-1783916

Abstract Text Introduction: Nonsurgical patients with acute cholecystitis are often drained initially with PC, then internalized electively. **Case:** EUS-GBD for internalization of PC is performed in a comorbid patient with gallstone cholecystitis before discharge, 10-days after admission. Following injection through the PC catheter and EUS imaging of the gallbladder from the bulb, freehand insertion of LAMS is performed for cholecyst-duodenostomy. An upper endoscope passed into the gallbladder through the LAMS. The PC catheter is removed under cholecystoscopy, leaving a guidewire in place. The orifice is clipped and cholecystography confirms proper sealing. Patient recovers uneventfully and is discharged. **Comment:** Clip closure of PC orifices by cholecystoscopy saves the need to wait for track maturation.

Video http://data.process.y-congress.com/ScientificProcess/Data//106/474/1197/6d12aed5-45a4-41ba-8e92-6b2d3c81b28d/Uploads/13821_Clip_vesicula.mov

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP628 Endoscopic Papillectomy : A single center 4-year retrospective study

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Aims Endoscopic papillectomy has been established as the treatment of choice for ampullary adenomas provided that certain criteria are met. Nevertheless, the evaluation studies are limited in international literature. The aim of the present study is to evaluate the efficacy and safety of this technique as long as the long-term outcomes.

Methods A retrospective study was conducted including patients undergone an endoscopic papillectomy in Oncological Hospital of Athens «Saint Savvas" during the period from May 2019 until May 2023. All cases were performed by a single experienced endoscopist. Parameters taking into account were demographic characteristics, rate of technical success of the procedure, adverse events and recurrence rate of adenomas. For the purpose of the present study, technical success was defined as the complete adenoma resection without any recurrence.

Results We included 18 patients with mean age of 60,9 years (SD ± 13,9 y, 67 % females, 33 % males). 14 of them underwent endoscopic papillectomy of major papilla (77,8 %) whereas the rest 4 of them a minor papilla resection (22,2 %). The rate of technical success was 94,5 %. Complications appeared in 27,8 % of the patients, as follows: pancreatitis (16,7 %) was treated conservatively and bleeding (11,1 %) was managed endoscopically. No case of perforation was observed. For the majority of patients (77,8 %), the final histological review showed a low grade dysplasia adenoma, 2 patients (11,2 %) were diagnosed with high grade dysplasia adenoma whereas only a single patient (5,5 %) underwent a pancreaticoduodenectomy due to a adenocarcinoma histological result. In the mean follow-up duration (21,9 months, SD ± 17,8) , no recurrence occurred. [1]

Conclusions Endoscopic papillectomy should be considered as a safe and effective method of papillary adenomas resection in the hands of an experienced endoscopist. Complication rate is low and most of the adverse events can be managed conservatively.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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eP629 10-year experience of 4 % formalin endoscopic instillation for the treatment of chronic radiation proctopathy

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DOI 10.1055/s-0044-1783918

Aims Chronic rectal proctopathy (CRP) complicates pelvic radiotherapy in 2-20 % of cases, and can result in significant morbidity, with rectal bleeding and iron deficiency anaemia. Topical application of formalin can induce coagulative necrosis, and endoscopic instillation of formalin for the treatment of patients with CRP has been described. However, the evidence for formalin instillation has so far been limited to small case series with heterogenous protocols of application. The aim of this study was to assess the efficacy and safety of endoscopic formalin instillation for CRP in a large tertiary centre.

Methods A prospectively collected database for consecutive patients with CRP referred between September 2013 to September 2023 for treatment with formalin instillation was analysed. At each session patients were treated with endoscopic rectal instillation of 30-50mls of a 4 % formalin solution with 0.05mls of indigo carmine, until adequate coverage of the partially deflated rectum was achieved. After 2 minutes (or until tolerated), the formalin was aspirated and the rectum irrigated until no more dyed formalin was visible. Patient symptoms were scored using the subjective, objective management analysis (SOMA) scale, and the endoscopic severity of CRP was graded by the Zinicola score. These measures were taken pre-treatment and prior to any subsequently planned treatments if clinically warranted, typically at 6-week intervals up to a maximum of 3 sessions.

Results 51 patients (49 male) were referred for treatment. The mean age was 72 years. Mean duration of symptoms was 7.8 (+ /- 3) months and the interval between radiotherapy and onset of symptoms was 11 (+ /- 4) months. A median of 2 sessions were required (range 1-3). Post-treatment protocol SOMA score reduction was 8 to 1 (P = 0.02) and mean Zinicola score reduction was from 4 to 2 (P = 0.04). The only complication recorded was one case of an anaphylactoid reaction with facial flushing, which resolved with observation

Conclusions This is one of the largest observational studies of endoscopic formalin instillation for CRP, which demonstrates that a modified technique enables effective, safe and cost-efficient treatment for radiation proctopathy.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP630 Artificial Intelligence automated assessment of colonoscopy key performance measures

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DOI 10.1055/s-0044-1783919

Aims Colorectal cancer is the third most frequent cancer and is an important cause of morbidity and mortality. A high-quality colonoscopy is the most, and only, effective method for the screening and early treatment of this disease. The key performance measures (KPM) that define a high-quality colonoscopy include the completeness of the examination, adequate intestinal cleansing, and retraction technique (evaluated through the retraction time) as established by the ESGE. The use of a single AI software can potentially make simpler, faster, and more objective the evaluation of the aforesaid KPM.

Methods A total of 127 fully anonymized videos of screening or diagnostic colonoscopies (excluding subjects undergoing surgery or suffering from IBD) were retrospectively annotated both in the intubation and retraction phases. At each stage of the colonoscopy the different colic segments (left, transverse and right colon, terminal ileum), the main anatomical landmarks (appendicular orifice, cecum, ileocaecal valve, ascending colon, hepatic flexure, transverse colon, splenic flexure, descending colon, sigma, rectum) and any endoscopic instruments used (tongs, loops, etc.) have been noted. Each entry was subsequently validated by two endoscopist experts with more than 10 years of experience. Bowel preparation was evaluated using the Boston Bowel Preparation Score during the withdrawal phase, as per guidelines. Retraction time has been estimated by subtracting the time of intubation of the terminal ileum and the time of using any endoscopic devices from the time elapsed between the intubation of the cecum and the end of the procedure.

A deep learning model for the assessment of cecal intubation, bowel preparation score and withdrawal time was generated using 70 videos for training, 28 for validation and 29 for testing.

Results The accuracy of cecal intubation was around 75 %, with 79 % for the appendiceal orifice. For the assessment of the bowel cleansing a regression model was developed with excellent results in all the colonic segments. The software was able to identify the endoscopic devices with a 72.3 % accuracy. This has guaranteed an accurate estimate of the retraction times with an absolute error of 12s ± 4s.

Conclusions The preliminary results of our project support the idea that artificial intelligence is an important tool to evaluate objectively and quickly the main KPM of colonoscopy, with a view to a fully automated reporting of the procedure.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP631 Circumferential Endoscopic Submucosal Dissection (CESD) for early squamous neoplasia with advanced energy platform: description of the first five cases performed in a Western setting

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DOI 10.1055/s-0044-1783920

Aims Circumferential endoscopic submucosal dissection (CESD) in the oesophagus is technically challenging. Stenosis happens in > 80 % of the cases of circumferential or almost circumferential ESD. Speedboat is an advanced bipolar energy knife that has been used for ESD in the colorectum and for third-space endoscopy, which incorporates bipolar energy for dissection, a microwave for the treatment of vessels, and an injection needle. No reports of CESD performed with Speedboat Slim (SS) exist.

Methods Data from consecutive patients who underwent circumferential or almost circumferential (≥90 % circumference) ESD with 8 Fr SS (July-November 2023) for early squamous neoplasia in the oesophagus in three Western teaching hospitals were analysed prospectively. Procedure duration, technical success, and adverse events were recorded.

Results Five patients underwent CESD with SS (two 90 % circumference, three circumferential) with a single tunnel method. En bloc resection was achieved in all five cases. A clip-band-line traction system was applied in three cases. There were no intraprocedural complications. The mean procedure time was 177 ± 58.5 min. The mean size of the specimens was 6.2 ± 1.48 cm. A self-assembling peptide was applied in 3 cases on the post-ESD resection site, steroids (triamcinolone or dexamethasone) were injected in the post-ESD defect, and oral budesonide 2 mg was given daily for 12 weeks in 3 cases. After a mean follow-up of 3.2 ± 1.3 months, two (40 %) patients had a mild stricture that needed dilatation. Histology revealed high-grade dysplasia (2 cases), T1a neoplasia (2 cases), and T1b neoplasia (1 case).

Conclusions CESD for squamous neoplasia can be safely performed with SS without exchanging accessories. The low rate of stenosis with bipolar energy and preventative administration of steroids is promising and warrants further investigation.

Conflicts of interest Authors do not have any conflict of interest to disclose.

eP632 Endoscopic Ultrasound-Guided Radiofrequency (EUS-RFA) and Ethanol Ablation (EUS-EA) of Pancreatic Neuroendocrine Tumors and Adenocarcinoma: A Prospective Multicenter Study

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Aims EUS-RFA and EUS-EA are emerging novel methods for managing non-functioning and functioning pNET and adenocarcinoma in the pancreas. We aim to assess the safety profile, feasibility, and outcomes of EUS-RFA and EUS-EA of focal pancreatic masses.

Methods This prospective study included 27 patients, 15 males and 12 females, with a mean age of 36.38 years. EUS-RFA was carried out in 13 patients; 11 had pancreatic insulinoma, and 2 had advanced pancreatic adenocarcinoma. The mean size of the masses was 20.6 mm, while that of the insulinomas was 17.4 mm. The median of the needle passes was 3, with a range of 1 to 6 passes. RFA was conducted using 19G EUSRA needles from Taewoong Co., Ltd., South Korea. No minor or major complications were observed. EUS-EA was carried out in 14 patients, all of whom had pancreatic insulinoma. The mean size of the masses was 15.3 mm. The median of the needle passes was 2, with a range of 1 to 3 passes. We used 19G and 22G echo tip FNA needles from Cook Company,

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USA. The mean duration of follow-up was 12.4 months. There was mild to moderate chronic pancreatitis in 4 patients in the EUS-EA group; all were relieved by conservative therapy, and no hospital admission was required. No early or late significant complications were reported in the EUS-RFA group. [1]

Results There was a complete clinical cure of 10 out of 11 (91 %) patients with pancreatic insulinoma who underwent EUS-RFA. However, one patient required three sessions, and two patients required two sessions of EUS-RFA. The 11th patient with insulinoma showed poor response after the first session, then partial response after the second session of EUS-RFA. The size of the two masses with advanced adenocarcinoma was decreased, but no downstaging of the masses was achieved. There was a complete clinical cure of 8 out of 14 (57 %) patients with pancreatic insulinoma who underwent EUS-EA. No clinical cure was observed in 4 patients; 3 underwent major surgery, and the 4th one underwent EUS-RFA. The last two patients showed partial clinical response with decreased frequency, duration, and severity of hypoglycemic attacks. They were managed by diet regulation; no major surgery was needed.

Conclusions EUS-RFA and EUS-EA can potentially treat lesions and control symptoms. EUS-RFA is a more promising and safer technique for managing functioning insulinomas. However, it can not downstage PDAC patients. EUS-EA seems less efficient, with more adverse events than EUS-RFA.

Conflicts of interest Authors do not have any conflict of interest to disclose.

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