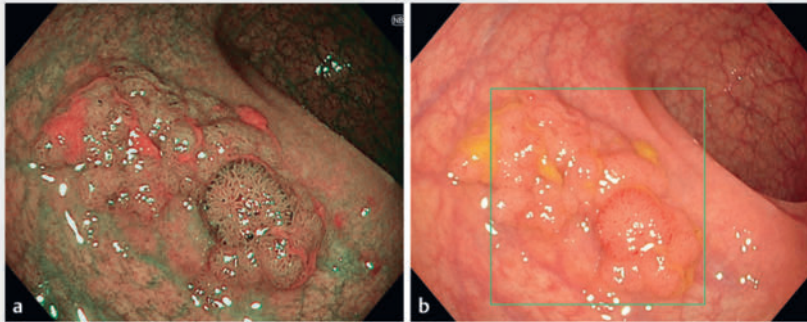
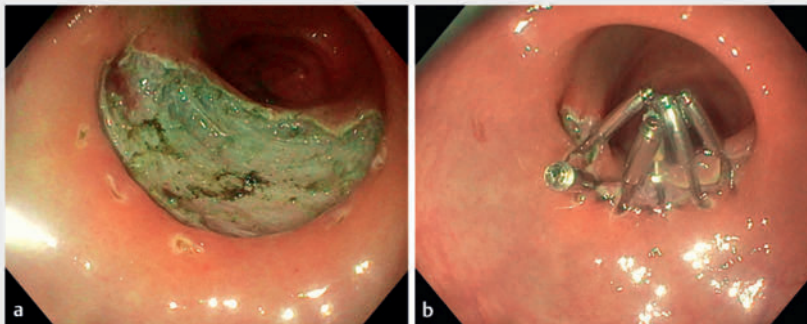


Endoscopic suturing system is the last chance for rectal bleeding after complicated endoscopic submucosal dissection

OPEN
ACCESS



► **Fig. 1** Endoscopic images showing a laterally spreading tumor in the mid-proximal rectum: **a** during computer-aided detection; **b** on narrow-band imaging.

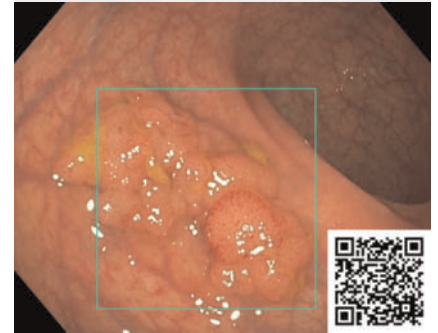


► **Fig. 2** Endoscopic images showing: **a** the post-endoscopic submucosal dissection defect after treatment with hemostatic forceps; **b** the closed defect after the placement of six endoclips.

We report the case of a 54-year-old woman who underwent endoscopic submucosal dissection (ESD) for a 3-cm laterally spreading tumor (LST) of the mid-proximal rectum (► **Fig. 1**). The ESD was complicated by intraoperative bleeding from visible vessels of the defect. Use of hemostatic forceps (Coagrasper) and endoclip placement led to resolution of the bleeding (► **Fig. 2**).

The patient was closely monitored and no further complications were observed until the second postoperative day when the patient resumed her warfarin therapy because of atrial fibrillation and a mechanical valve prosthesis. The need

to resume anticoagulant therapy in patients who have undergone invasive procedures has always been challenging in endoscopy as it can increase the risk of bleeding [1]. In this case, our patient, after a few days of therapy, again developed rectal bleeding. Endoscopic hemostasis was attempted with the injection of fibrin glue and the application of hemostatic powder spray (Hemospray); however, after a period of apparent clinical stability, another emergency endoscopy revealed copious bleeding from the ESD defect (► **Video 1**). This time, after cleansing the area, we removed the previously placed endoclips to better iden-



► **Video 1** Endoscopic hemostasis is achieved with the use of an endoscopic full-thickness suturing system for recurrent rectal bleeding after endoscopic submucosal dissection.



► **Fig. 3** Endoscopic image showing complete control of the bleeding after endoscopic suturing with the full-thickness endoscopic suture system.

tify the site of bleeding. We then performed endoscopic suturing with a full-thickness suturing device (Apollo Overstitch system), achieving satisfactory control of the bleeding after just one full-thickness bite. Defect closure was refined by the placement of further full-thickness sutures (► **Fig. 3**).

After adequate observation, the patient was discharged in good general condition from our hospital and no further bleeding was observed in the following days. Endoscopic follow-up after 3 months showed a

flat, regular scar in the mid-proximal rectum, with no signs of recurrence. No rectal stenosis or substenosis was identified after the full-thickness endoscopic suturing.

Several studies have investigated the effectiveness of endoscopic suturing to prevent adverse events after ESD [2, 3]. We believe that use of the full-thickness endoscopic suturing device is safe and effective for control of bleeding when other hemostatic methods have failed.

Endoscopy_UCTN_Code_CPL_1AJ_2AZ

Acknowledgement

The video was presented at the 30th National Congress of Digestive Diseases, FISMAD, and published as an abstract in *Dig Liver Dis* 2024; DOI:10.1016/S1590-8658(24)00690-X.

Conflict of Interest

F. Barbaro has received consultancy fees from Olympus. I. Boškoski has received consultancy and lecture fees from Apollo Endosurgery, Boston Scientific, Cook Medical, and Microtech; consultancy fees from Pentax Medical, EndoTools, and Erbe Elektromedizin; and lecture fees from Olympus; research grants from Apollo Endosurgery, Erbe Elektromedizin, and EndoTools, and is on the Scientific & Clinical Advisory Boards of Nitinotes Ltd. and Myka Labs Inc. C. Spada has received consultancy fees from Medtronic, Pentax, Olympus, Norgine, Alfasigma, and Anx robotics. M. De Siena, V. Bove, M. Valeria Matteo, and V. Pontecorvi declare that they have no conflict of interest.

The authors

Martina De Siena¹, **Federico Barbaro**¹, **Vincenzo Bove**¹, **Maria Valeria Matteo**¹, **Valerio Pontecorvi**¹, **Ivo Boškoski**¹, **Cristiano Spada**¹

1 Digestive Endoscopy Unit, Fondazione Policlinico Universitario Agostino Gemelli IRCCS, Rome, Italy

Corresponding author

Martina De Siena, MD

Fondazione Policlinico Universitario Agostino Gemelli IRCCS – Digestive Endoscopy Unit, Largo Agostino Gemelli 8, Roma, Lazio, 00166, Italy
martina.desiena@unicatt.it

References

- [1] Veitch AM, Radaelli F, Alikhan R et al. Endoscopy in patients on antiplatelet or anticoagulant therapy: British Society of Gastroenterology (BSG) and European Society of Gastrointestinal Endoscopy (ESGE) guideline update. *Gut* 2021; 70: 1611–1628. doi:10.1136/gutjnl-2021-325184
- [2] Han S, Wani S, Edmundowicz SA et al. Feasibility of endoscopic suturing to prevent adverse events and hospitalization after endoscopic submucosal dissection. *Endosc Int Open* 2020; 8: E1212–E1217. doi:10.1055/a-1197-6534
- [3] Kantsevov SV, Bitner M, Mitrov AA et al. Endoscopic suturing closure of large mucosal defects after endoscopic submucosal dissection is technically feasible, fast, and eliminates the need for hospitalization (with videos). *Gastrointest Endosc* 2014; 79: 503–507

Bibliography

Endoscopy 2024; 56: E605–E606

DOI 10.1055/a-2342-0164

ISSN 0013-726X

© 2024. The Author(s).

This is an open access article published by Thieme under the terms of the Creative Commons Attribution License, permitting unrestricted use, distribution, and reproduction so long as the original work is properly cited.

(<https://creativecommons.org/licenses/by/4.0/>)

Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany



ENDOSCOPY E-VIDEOS

<https://eref.thieme.de/e-videos>



E-Videos is an open access online section of the journal *Endoscopy*, reporting on interesting cases

and new techniques in gastroenterological endoscopy. All papers include a high-quality video and are published with a Creative Commons CC-BY license. *Endoscopy E-Videos* qualify for HINARI discounts and waivers and eligibility is automatically checked during the submission process. We grant 100% waivers to articles whose corresponding authors are based in Group A countries and 50% waivers to those who are based in Group B countries as classified by Research4Life (see: <https://www.research4life.org/access/eligibility/>).

This section has its own submission website at <https://mc.manuscriptcentral.com/e-videos>