Yet another advantage of saline-immersion therapeutic endoscopy!





► Fig. 1 The lesion consisted of a 60-mm large type 0-ls with a 30-mm 0-lla extension on the posterior wall of the lower qastric body.



► Fig. 2 Enhanced computed tomography revealed that the muscle layer and a thick blood vessel were retracted into the large tumor.

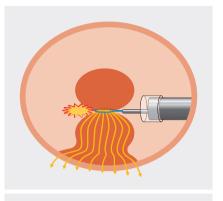


■ Video 1 Yet another advantage of saline-immersion therapeutic endoscopy!

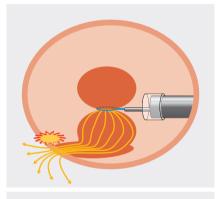
Since its first description, saline-immersion therapeutic endoscopy (SITE) is being increasingly adopted to facilitate endoscopic submucosal dissection (ESD) [1,2]. SITE enhances access to submucosal pockets, and through buoyancy, obviates any need for traction. It augments visibility through magnification and elimination of smoke/debris, and its minimal distension of the lumen optimizes endoscopic maneuverability and patient comfort [1,3]. We report a further advantage of SITE.

An otherwise healthy 90-year-old man who had declined surgery underwent ESD of a large gastric tumor identified on computed tomography. The lesion consisted of a 60-mm Paris 0-Is component with a further 30-mm 0-IIa extension over the posterior wall of the lower gastric body (▶ Fig. 1, ▶ Fig. 2). Lesion mobility and endoscopic ultrasound findings showed no signs of deep invasion. A fibrotic portion beneath the 0-Is area was dissected using the SITE-facilitated pocketcreation method (PCM) ESD (► Video 1) [4]. Thick perforating vessels were clipped to achieve a safe outcome. En bloc resection was achieved within 120 minutes. The large 0-Is component impeded safe passage through the esophagogastric junction and warranted snare division before retrieval. To maintain precise pathological submucosal integrity, only the mucosal portion was divided using a monopolar snare.

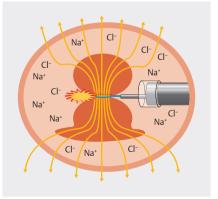
Safe division of a resected lesion with a monopolar snare requires broad contact of the specimen with the gastric wall (**> Fig. 3**). Failure to achieve broad contact may result in heightened current density concentration at the smaller contact area rather than at the snare-constricted portion; this may cause failure of division, with potential deep-tissue injury and perforation at the smaller contact point (**> Fig. 4**) [5]. Through complete saline immersion, electrical conductivity of the medium facilitated electrical contact of the entire specimen with the gas-



► Fig. 3 The current density concentrates at the portion constricted by the snare.



▶ Fig. 4 Current density concentration at a smaller contact area than the constricted portion, potentially causing ineffective cutting at the constricted portion with potential deep tissue injury and perforation at the contact point.



▶ Fig. 5 Through complete saline immersion of the resected specimen, conductivity of the medium allows for the entire specimen to maintain electrical contact with the gastric wall.

tric wall, enabling successful, rapid, safe division and retrieval without any adverse event (**Fig.5**).

The advantages of SITE-facilitated PCM allowed safe management of fibrosis and thick vessels. Additionally, we highlight a further advantage of SITE: its efficacy for division of a bulky specimen using a monopolar snare for safe retrieval.

Endoscopy_UCTN_Code_TTT_1AO_2AG_3AD

Conflict of Interest

Hironori Yamamoto has consultant relationships with Fujifilm Co. Ltd. and received honoraria, grants, and royalties from the company. Edward John Despott has educational grants in support of conference organization, and honoraria, from Fujifilm, Pentax, and Olympus, and from Ambu. The other authors declare no conflicts of interest associated with this article.

The authors

Kosei Hashimoto¹, Hisashi Fukuda¹, Toshihiro Fujinuma¹, Edward J Despott², Hironori Yamamoto¹

- Department of Medicine, Division of Gastroenterology, Jichi Medical University, Shimotsuke, Japan
- 2 Royal Free Unit for Endoscopy, The Royal Free Hospital, University College London Institute for Liver and Digestive Health, London, United Kingdom of Great Britain and Northern Ireland

Corresponding author

Hironori Yamamoto, MD

Department of Medicine, Division of Gastroenterology, Jichi Medical University, 3311-1 Yakushiji, Shimotsuke, Tochigi, Japan ireef@jichi.ac.jp

References

- [1] Despott EJ, Murino A. Saline-immersion therapeutic endoscopy (SITE): An evolution of underwater endoscopic lesion resection. Dig Liver Dis 2017; 49: 1376. doi:10.1016/j. dld.2017.08.035
- [2] Despott EJ, Hirayama Y, Lazaridis N et al. Saline immersion therapeutic endoscopy facilitated pocket-creation method for endoscopic submucosal dissection (with video). Gastrointest Endosc 2019; 89: 652– 653
- [3] Masunaga T, Kato M, Yahagi N. Water pressure method overcomes the gravitational side in endoscopic submucosal dissection for gastric cancer. VideoGIE 2021; 6: 457–459. doi:10.1016/j.vqie.2021.06.002
- [4] Hayashi Y, Sunada K, Takahashi H et al. Pocket-creation method of endoscopic submucosal dissection to achieve en bloc resection of giant colorectal subpedunculated neoplastic lesions. Endoscopy 2014; 46: E421–E422. doi:10.1055/s-0034-1377438
- [5] Hiromi S. Colonoscopy: Diagnosis and Treatment of Colonic Diseases. New York: Iqaku-Shoin Medical Publishers Inc; 1982

Bibliography

Endoscopy 2024; 56: E542–E543 DOI 10.1055/a-2334-0854 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