Yet another advantage of saline-immersion therapeutic endoscopy!





E-Videos

► Fig. 1 The lesion consisted of a 60-mm large type 0-Is with a 30-mm 0-IIa extension on the posterior wall of the lower gastric 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-lla 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 point (**b** Fig.4) [5].



► 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.

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Endoscopy 2024; 56: E542–E543 DOI 10.1055/a-2334-0854 ISSN 0013-726X © 2024. The Author(s).

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