



Freestyle endoscopic submucosal dissection using a multifunctional snare

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Endoscopic submucosal dissection (ESD) is an excellent treatment for superficial GI neoplasms because it allows en bloc resection, regardless of the lesion size.^{1,2} Recently, a novel multifunctional snare (SOUTEN; Kaneka Medics, Tokyo, Japan) was introduced to enable successful hybrid ESD procedures.^{3,4} Although this multifunctional snare was introduced for hybrid ESD, hybrid ESD involves partial submucosal dissection. We hypothesized that conventional ESD using this multifunctional snare would be a successful technique. We have previously reported the safety and efficacy of ESD using this multifunctional snare.⁵

The working length of the knife can be adjusted, and this is one of the advantages of ESD using this multifunctional snare. By adjusting the working length of the knife to be longer than usual, the area that can be dissected at once is expanded. Dissection can safely proceed at a faster rate. Therefore, we developed the new technique of “freestyle ESD” using the multifunctional snare.

An 84-year-old man had a 45-mm neoplasm in the greater curvature of the lower gastric body (Fig. 1). The ESD procedure was performed using a single-channel endoscope (GIF-Q260J; Olympus Co, Tokyo, Japan) with carbon dioxide insufflation. The working length of the knife is adjustable depending on the situation (Video 1,

available online at www.giejournal.org). We essentially used only the tip of the knife for dissection during the ESD procedure, and we sometimes used the snare for dissection by increasing the working length of the knife (Fig. 2). The lesion was resected en bloc within 26 minutes without any adverse events. Histologic examination revealed an adenocarcinoma (tub 1, pT1a [M], ly0, v0, pHM0, pVM0) and curative resection.

This multifunctional snare is a novel device. However, it is sometimes difficult to properly estimate the length of the tip of the snare. There is no ratcheted handle mechanism with this multifunctional snare, and the knife at the tip sometimes retracts during dissection. The length must be adjusted as appropriate according to the situation on the endoscopic screen. The degree of handle grip required to make a certain knife length will change depending on the deflection of the endoscope and the degree of angle manipulation. Therefore, it is important that the assistant adjusts the length of the knife by looking at the actual length on the endoscopic screen instead of the degree of the handle grip. However, the knife at the tip never protrudes during dissection without the assistant opening his or her hand. Therefore, this multifunctional snare is a safe device. There are some reports on the safety and efficacy of endoscopic procedures using this multifunctional snare.⁴⁻⁷

Kobara et al⁶ reported on the safety and efficacy of hybrid ESD for 2 small gastric neoplasms (both approximately 10 mm in diameter) using this multifunctional snare. We performed ESD for a 45-mm neoplasm in this study. Indications for whether to perform hybrid ESD or ESD using this multifunctional snare for gastric neoplasms should be investigated in the future. On the other hand, previous studies reported on the safety of hybrid ESD for colorectal neoplasms.^{4,7} We have also reported the safety of colorectal ESD using this multifunctional snare.⁵ Although colorectal ESD is technically difficult and careful judgment is required, it is possible that “freestyle ESD” can be performed for colorectal neoplasms in the future.

To our knowledge, this is the first report of “freestyle ESD” using the multifunctional snare. By adjusting the working length of the knife according to the situation, this multifunctional snare achieves a good balance between safety and efficiency.

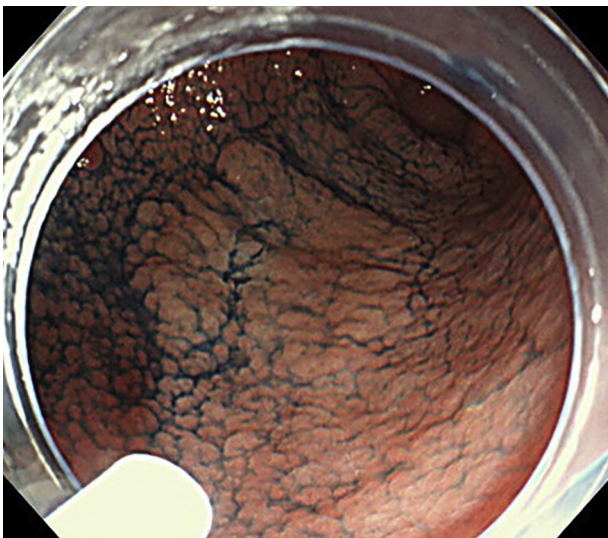


Figure 1. A 45-mm neoplasm in the greater curvature of the lower gastric body.

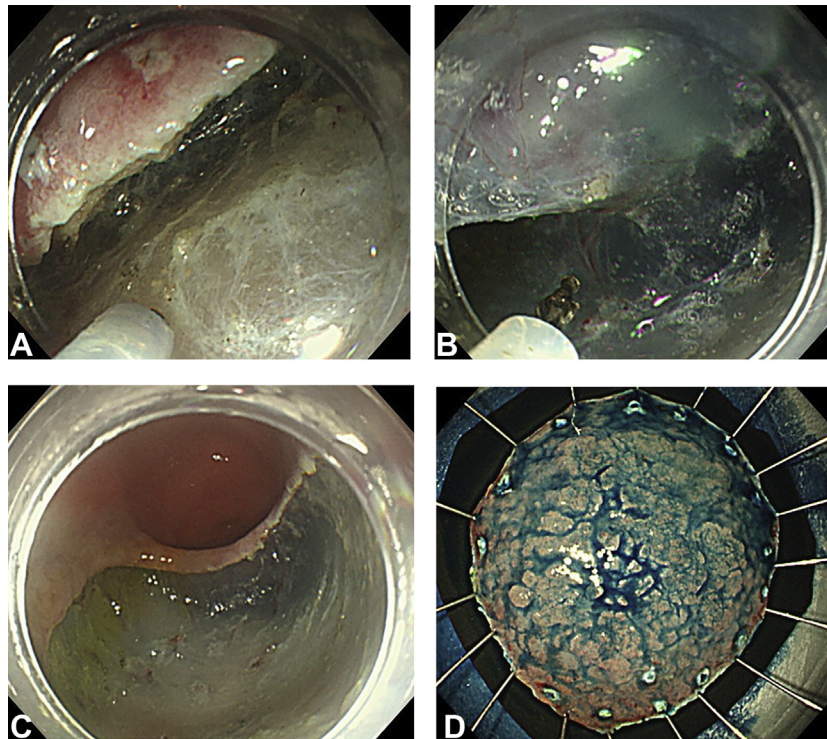


Figure 2. Endoscopic submucosal dissection using the SOUTEN snare (SOUTEN-ESD) procedure. **A**, Adjusting the working length of the knife to be shorter than usual until pocket creation is finished. **B**, Using the snare for dissection by adjusting the working length of the knife to be longer. The area that can be dissected at once is expanded, and dissection can safely proceed at a faster rate. **C**, The ulcer floor after SOUTEN-ESD. **D**, Resected specimen. En bloc resection was achieved.

DISCLOSURE

All authors disclosed no financial relationships.

Abbreviation: ESD, endoscopic submucosal dissection.

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<https://doi.org/10.1016/j.vgie.2021.08.001>