



A recurrent lesion with severe fibrosis of colorectal endoscopic submucosal dissection using the combination of pocket-creation method and traction device

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Colorectal endoscopic submucosal dissection (ESD) using a pocket-creation method (PCM) is a technique that stabilizes the endoscope by creating a submucosal pocket below the tumor.¹ Our previous report showed that it was useful for resecting large colorectal tumors and lesions with severe fibrosis.² It is also useful in treating tumors when maneuverability of the endoscope is poor because of breathing movement and difficult location. However, it is sometimes difficult to create a submucosal pocket in PCM due to severe fibrosis and location.

The S-O clip (Zeon Medical Co, Tokyo, Japan) is a traction device consisting of a metallic clip, spring, and loop for ESD (Fig. 1). It enables us to pull a lesion upward and facilitates submucosal dissection, shortening ESD procedure time.^{3,4} However, cases with breathing movement and poor manipulation are difficult even if we use the S-O clip. We herein present a case of colorectal ESD using the combination of PCM and S-O clip for overcoming each difficulty. Sufficient traction with the S-O clip allows easy entry into a submucosal pocket. Moreover, combination of PCM and the S-O clip enable adequate traction during submucosal dissection and make ESD easier and faster.

A 74-year-old woman underwent surveillance colonoscopy after endoscopic mucosal resection (EMR). A recurrent IIa

lesion after EMR, 50 mm in size, was detected at the ascending colon (Fig. 2A). Magnified blue-laser imaging showed an irregular surface and vessel pattern, and the lesion was diagnosed as high-grade dysplasia (Fig. 2B). After an injection of 0.2% hyaluronic acid solution with indigo carmine, mucosal incision was performed with a scissor-type knife (Clutch Cutter 3.5 mm; Fujifilm Co, Tokyo, Japan) (Fig. 2C).

After a full circumferential mucosal incision, the S-O clip was deployed at the anal side of the partially resected specimen. The loop on the S-O clip was anchored to the colon wall by a regular clip on the anal side about 3 cm from the lesion. Sufficient traction with the S-O clip allowed easy entry into a submucosal pocket (Fig. 2D).

Adequate and stable dissection for the severe fibrosis beneath the lesion was performed within the pocket (Fig. 2E). Sufficient traction was maintained with the S-O clip and PCM during submucosal dissection, which made submucosal dissection faster and easier (Fig. 2F).

Finally, the lesion was resected en bloc in 80 minutes (Fig. 2G). After resection, the exposed vessels in the ulcer were coagulated with the Clutch Cutter. We then disconnected the loop of the S-O clip and removed the lesion from the patient's body with big forceps using a forefinger compression method, during which a forefinger was lubricated and used to distend the anal canal.⁵

No adverse events occurred. The histopathologic diagnosis was high-grade dysplasia with free margins (Fig. 2H) and no lymphovascular invasion.

In conclusion, we present a case of a recurrent lesion with severe fibrosis that was resected successfully using the combination of PCM and a traction device. This method is a novel strategy to overcome the difficulties of creating a pocket and makes ESD faster and easier (Video 1, available online at www.VideoGIE.org).

DISCLOSURE

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Abbreviations: EMR, endoscopic mucosal resection; ESD, endoscopic submucosal dissection; PCM, pocket-creation method.

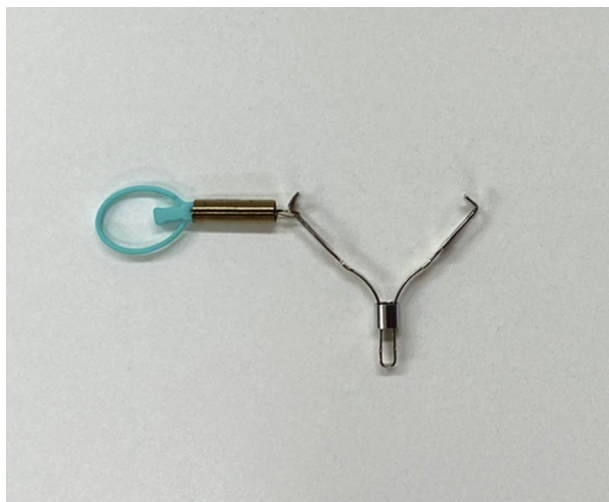


Figure 1. S-O clip. The S-O clip consists of a metallic clip, spring, and loop.

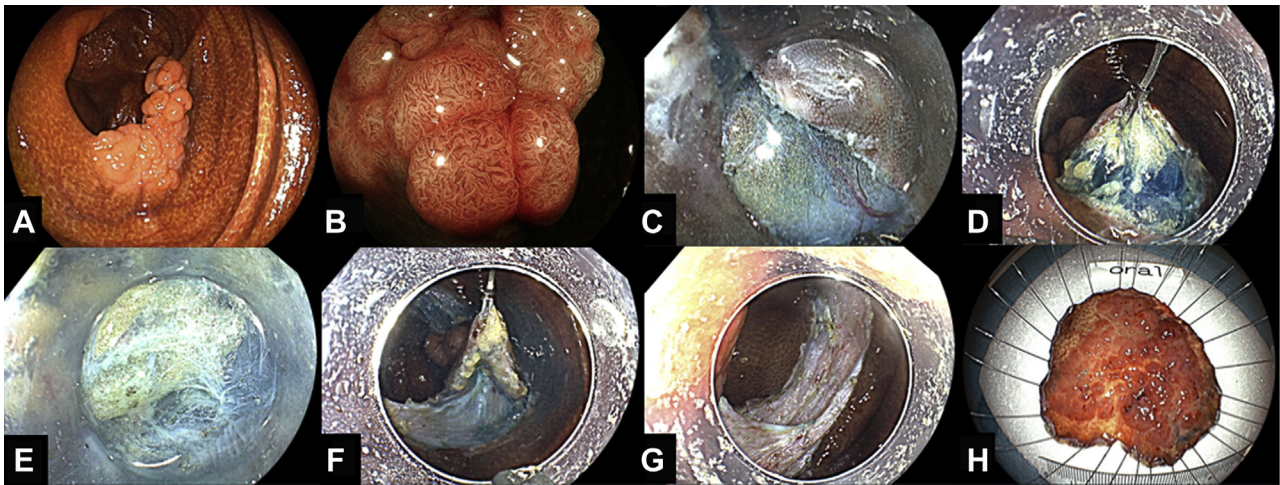


Figure 2. Colorectal endoscopic submucosal dissection with a Clutch Cutter and S-O clip. **A**, A recurrent IIA lesion 50 mm in size at the ascending colon. **B**, The lesion was diagnosed as high-grade dysplasia because magnified blue-laser imaging showed an irregular surface and vessel pattern. **C**, Mucosal incision was performed after mucosal injection. **D**, After a full circumferential mucosal incision, the S-O clip was deployed at the anal side of the partially resected specimen. Another clip was deployed to pull the loop of the S-O clip up to the opposite side of the colonic wall. **E**, Sufficient traction was achieved, and stable submucosal dissection for severe fibrosis could be performed. **F**, Even after circumferential mucosal incision, sufficient traction was kept with the S-O clip and pocket-creation method. **G**, The lesion was resected en bloc, and the ESD procedure time was 80 min. **H**, Histopathologic diagnosis was high-grade dysplasia with free margin.

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