



Pocket endoscopic submucosal dissection with countertraction and partial full-thickness excision as salvage therapy for advanced colonic adenoma with severe fibrosis

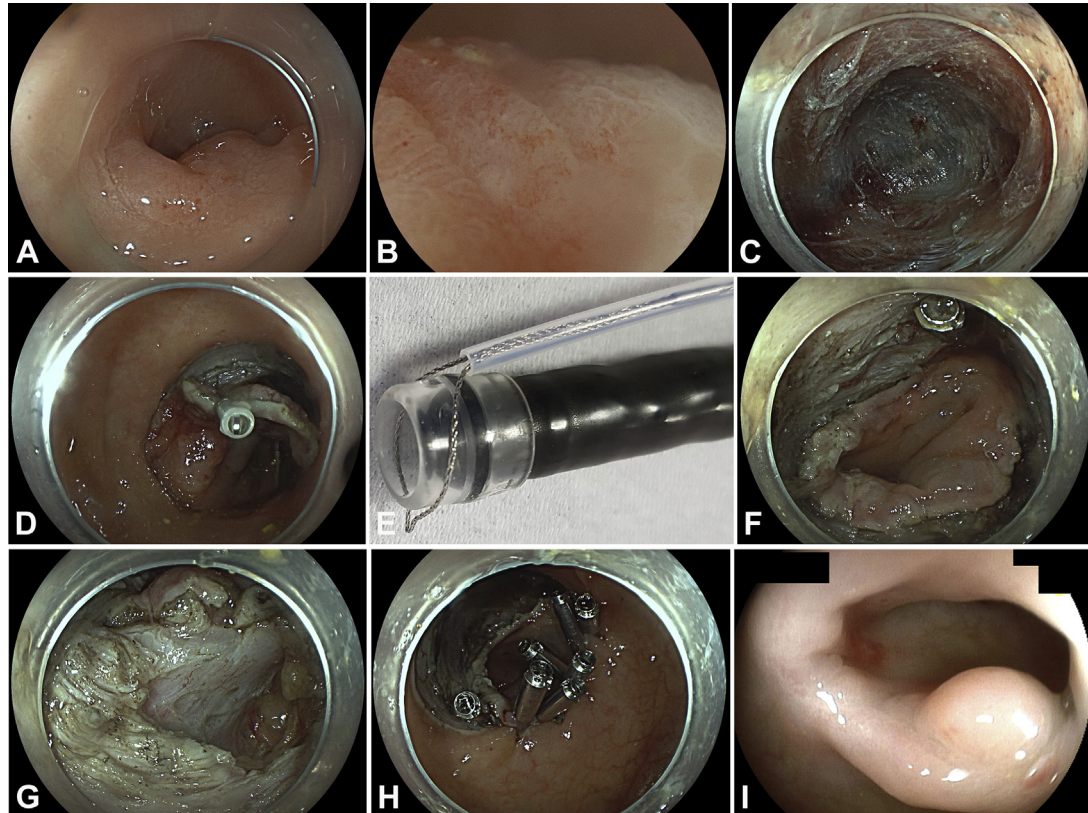


Figure 1. **A**, Endoscopic view of a nongranular laterally spreading tumor. **B**, White light zoom endoscopy showing an irregular distribution of small tortuous vessels. **C**, Creation of a submucosal pocket underneath the lesion. **D**, Placement of a small clip at the edge of the mucosal flap. **E**, Loading a snare over the endoscope. **F**, Circumferential resection. **G**, Transmural wall defect. **H**, Closure of the wall defect with multiple clips. **I**, Endoscopic image of the site of resection at 7 months of follow-up. A small nodule of granulomatous tissue is seen at the site of previous clipping.

A 68-year-old woman who had undergone surgery and radiotherapy for rectal cancer was referred for endoscopic submucosal dissection (ESD) of a 2-cm flat nongranular polyp (Paris IIa+IIc) in a substenotic segment of the sigmoid colon (Figs. 1A and B; Video 1, available online at www.VideoGIE.org). The lesion was lifted with a mixture of hyaluronic acid with indigo carmine and hydroxyethyl starch. A small incision was made at the anal side with a needle-type knife (DualKnife 1.5 mm; Olympus, Tokyo, Japan), and the endoscope ((EG-760Z; Fujifilm, Tokyo, Japan) was gently pushed into the submucosal space.

A submucosal pocket was created following the external markers (Fig. 1C), by use of Endocut Q, effect 2, for

dissection (Vio 3; Erbe, Germany), forced coagulation 25 W for coagulation of small vessels with the tip of the knife, and soft coagulation 80 W for coagulation of bigger vessels with a Coagrasper (Olympus). Dissection of the right side of the lesion was challenging because of thick fibrosis. A snare was loaded over the extremity of the endoscope, a clip was placed at the edge of the mucosal flap, and then the snare was released and the clip was grasped (Figs. 1D and E). Back-and-forward movements of the snare changed the direction of the countertraction as desired.

After considerable dissection of about 90% of the lesion, the specimen was then hanging from a band of scar tissue

Written transcript of the video audio is available online at www.VideoGIE.org.

fused with the muscle layer. It was hard to recognize the dissection plane; therefore, we proceeded to perform blind dissection, taking into account the risk of perforation with a blunt tip knife (IT Knife nano; Olympus). Finally, en-bloc resection was achieved, leaving a circumferential mucosal defect (Figs. 1F and G). A 2-cm-long transmural defect was seen leading into a small blind cavity, which was completely closed with clips (LifePartners Europe, Londerzeel, Belgium). The next day the patient experienced diffuse abdominal pain and we performed a laparoscopy, which showed generalized peritonitis. The site of perforation was firmly closed with endoscopic clips (Fig. 1H).

The abdomen was washed, and 1 surgical drain was placed. The patient was discharged home on day 2 and had an uneventful recovery. Histologic examination of the resected specimen showed R0 tubulovillous adenoma with high-grade dysplasia. The muscular layer was identified in a small portion of the specimen, corresponding to the area with severe fibrosis. At her 7-month follow-up

visit, the patient remained asymptomatic without signs of recurrence (Fig.1I).

DISCLOSURE

All authors disclosed no financial relationships relevant to this publication.

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<https://doi.org/10.1016/j.vgie.2018.01.008>