

Hybrid endoscopic submucosal dissection for anal canal fibroma

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An 83-year-old bedridden woman was referred for a suspected rectal polyp that frequently protruded from the anus when passing stools. Although the mass would reduce spontaneously, she experienced extreme discomfort, tenesmus, and occasional rectal bleeding. Ambulatory proctoscopy at the surgery department suggested a tumor in the lower rectum or anal canal.

Colonoscopy revealed a large, smooth, pedunculated tumor in the lower rectum that originated in the anal canal, near the dentate line (Fig. 1A,B). The surface pattern was regular, and a subepithelial anal canal tumor was suspected (Fig. 1C). Biopsies were noncontributory. Margins could not be identified on endosonography

because the lesion extended into the anal canal (Fig. 1D). Although surgery was proposed to ensure complete resection, the patient refused. Because the goal of treatment was symptomatic relief rather than margin-free resection, hybrid endoscopic submucosal dissection (ESD) was selected to achieve rapid resection in light of the patient's poor condition, after the risk of incomplete resection was explained.

Hybrid ESD was performed using an esophagogastroduodenoscope (Olympus Medical Systems, GIF-H290T, Tokyo, Japan) with a transparent hood and the VIO300 D electrical unit (Erbe Elektromedizin, Tübingen, Germany), using the Endocut Q mode (effect 1, time 2, interval 2) for

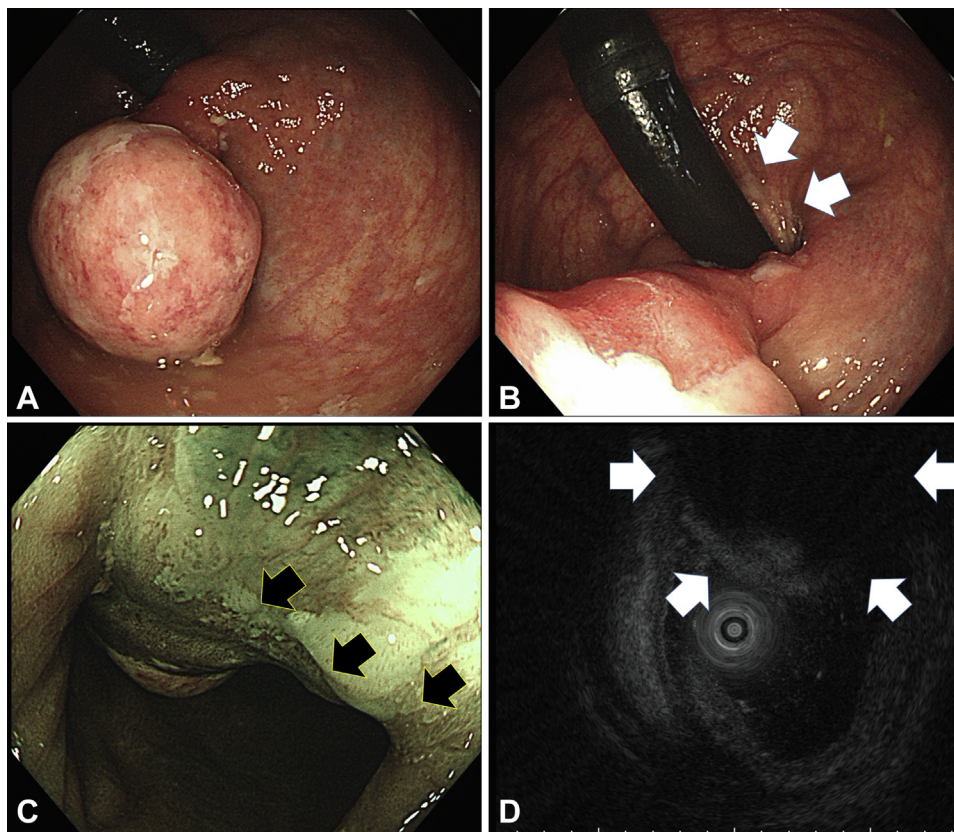


Figure 1. **A**, A large, smooth pedunculated tumor originating in the anal canal, near the dentate line. **B**, The tumor appeared to originate in the anal canal, extending beyond the dentate line (*arrows*) into the rectum. **C**, On narrow-band imaging, the surface pattern was regular on both sides of the dentate line (*arrows*). **D**, Endosonography revealed a homogeneous hypoechoic tumor (*arrows*). The margin on the anal side could not be identified as observation under water immersion was not possible in the anal canal.

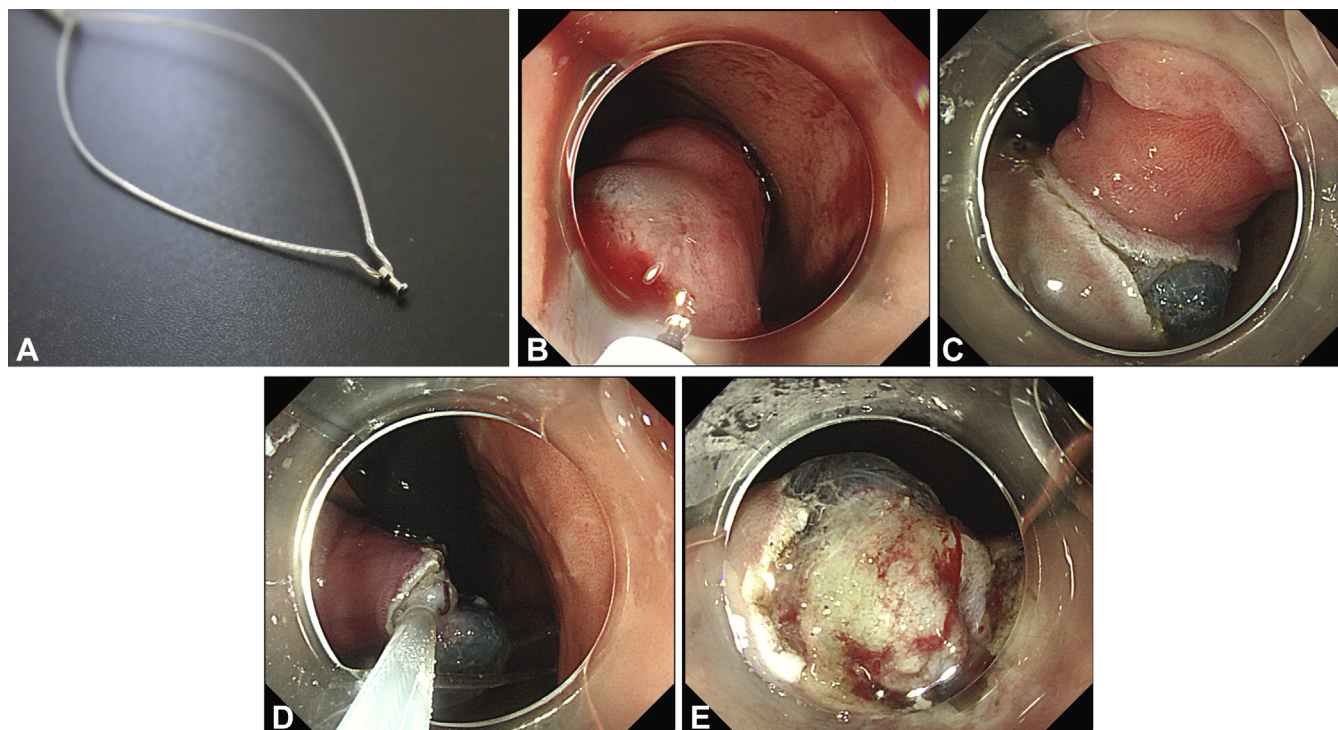


Figure 2. **A**, The SOUTEN snare is a multifunctional snare with a knob-like tip that can be used for conventional or hybrid endoscopic submucosal dissection. **B**, The tip of the SOUTEN snare (protruding from the sheath) was used for mucosal incision. **C**, The circumferential incision was completed in retroflexed position. **D**, The lesion was grasped with the snare and resected in retroflex position. **E**, The anal side of the resected submucosa showed remaining white lesion that extended into the anal canal.

mucosal incision, the Swift Coagulation mode (effect 3, 30 W) for submucosal dissection, and Endocut Q mode (effect 2, time 3, interval 2) for snare resection (Video 1, available online at www.giejournal.org).

The procedure was performed with the patient under conscious sedation with midazolam and pethidine. First, a lifting solution composed of saline solution, lidocaine, and indigo carmine was injected into the submucosa. Next, the tip of the SOUTEN snare (Kaneka Medics, Tokyo, Japan) was used to make a circumferential incision (Fig. 2A–C). A relatively deep incision was made to confirm whether en bloc resection was possible. The same SOUTEN snare was then used to snare and resect the lesion along the mucosal incision line (Fig. 2D). The circumferential incision prevented slipping of the snare and allowed it to capture the lesion at the right depth and location and while snaring, because both the tumor and endoscope hindered the endoscopic view of the anal side in retroflexed position. The anal side of the resected submucosa showed remaining white lesion that extended into the anal canal, suggesting possible residual tumor (Fig. 2E). Minimal bleeding was observed, and endoclips were used to suture the anal side of the post-ESD ulcer. The procedure was completed in 30 minutes. The postprocedural course was uneventful.

Pathology of the resected specimen revealed a mass composed of fibrous elements with minimal atypia resembling soft fibromas of the skin (Fig. 3A–C). The entire stalk was composed of the same architecture, and the margin of the fibroma was unclear. The patient experienced complete relief of her symptoms and experienced no postprocedural pain or other adverse events. She was discharged 4 days later. She remains asymptomatic at 10 months of follow-up.

Fibromas are benign mesenchymal lesions characterized by hard, smooth nodules made of fibrous or connective tissue.¹ They can occur anywhere in the body with mesenchyme, including the anal canal. Surgical resection is the treatment of choice; ESD for fibromas has not been reported. Once resected, long-term follow-up is not required because there is no malignant potential.

Hybrid ESD was developed as a faster, less challenging alternative to conventional ESD. Its safety and efficacy have been shown in the treatment of colorectal lesions, particularly for laterally spreading tumors.² SOUTEN snare, a multifunctional snare with a knob-shaped tip, allows for rapid, low-cost hybrid ESD with a single device.³ This unique tip provides a visual clue for consistent incision depth and facilitates hooking of the mucosa for

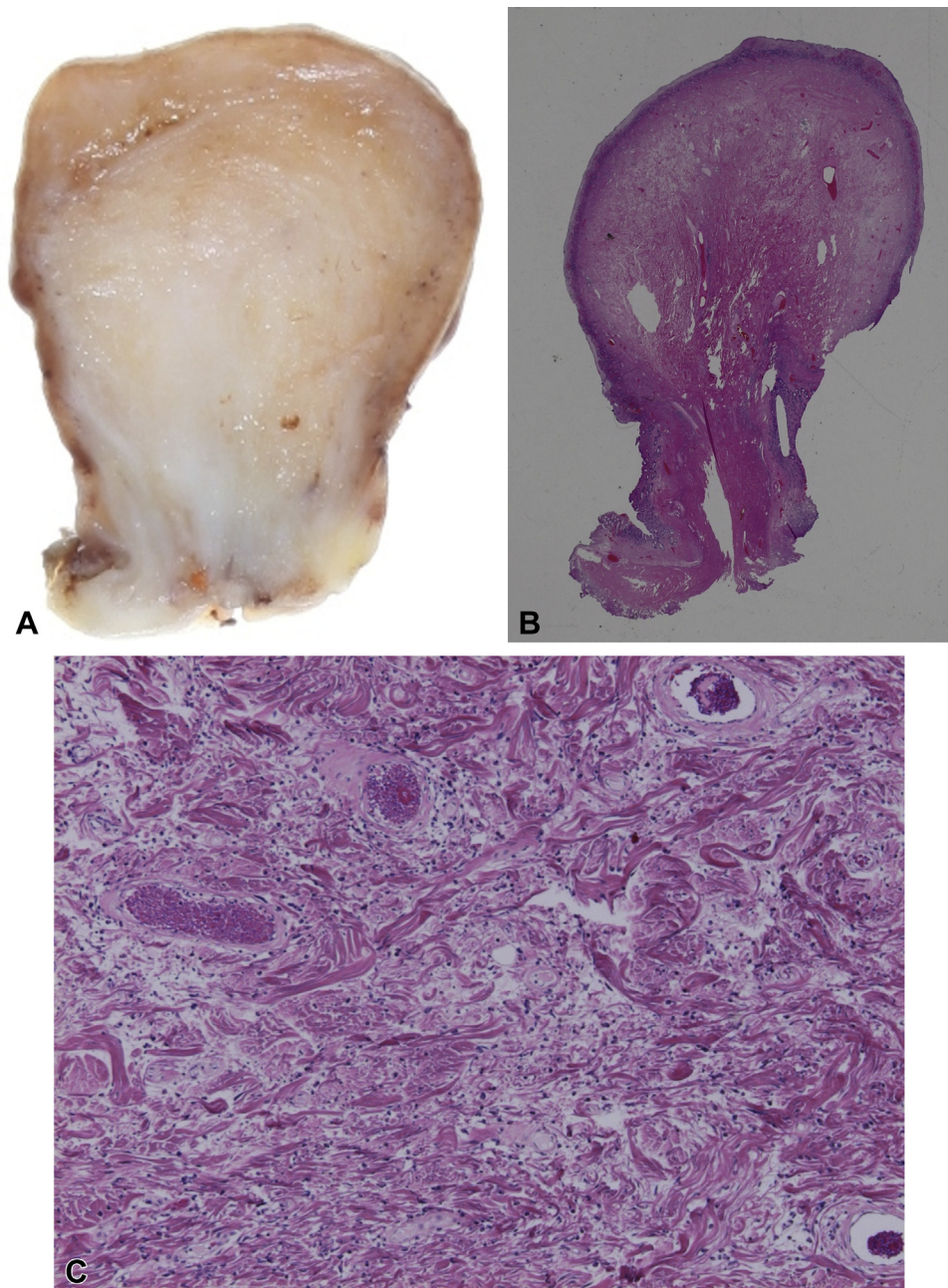


Figure 3. **A**, The resected specimen revealed a white, uniform, fibrous mass with no clear delineation from the surrounding tissue. **B**, Macroscopic and **(C, H&E, orig. mag. $\times 40$)** microscopic views after hematoxylin and eosin staining showed fibrous connective tissue with minimal atypia resembling soft fibroma of the skin.

safe incision and dissection. In this case, hybrid ESD was preferable to conventional endoscopic mucosal resection because the mucosal incision allowed us to visualize the submucosa underneath the lesion and created a circumferential pit for accurate snare placement and hooking. Conventional ESD would have been both time-consuming and difficult because of scope instability in the anal canal in forward view and unpredictable movements of the tumor as the resection progressed. Because palliative options for masses causing tenesmus are

limited,⁴ hybrid ESD may be a viable alternative for selected lesions originating in the anal canal for patients who are unfit for surgery.

DISCLOSURE

All authors disclosed no financial relationships.

Abbreviation: ESD, endoscopic submucosal dissection.

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