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Submucosal tunneling endoscopic resection for rectal gastrointestinal stromal tumor

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A 60-year-old man was referred for evaluation of a rectal submucosal tumor located 5 cm proximal to the anus (▶ **Video 1**, ▶ **Fig. 1**). Endoscopic ultrasonography revealed a 3-cm hypoechoic lesion originating from the muscular layer. The patient underwent submucosal tunneling endoscopic resection (STER) under sedation with propofol for diagnosis and treatment (▶ **Fig. 2**). A small horizontal incision was made at the anus and a submucosal pocket was created with injection of a mixture of hydroxyethyl starch and indigo carmine into the submucosal layer (GIF 190TH1; Olympus, Tokyo, Japan; and Flush Knife BTs 1.5 mm, FujiFilm, Tokyo, Japan). The tip of the tumor was enucleated (▶ **Fig. 3**), and then the intramuscular portion of the tumor was dissected with a square-tip knife (Square Knife; Endoaccess, Garbsen, Germany) using spray coagulation (VIO 3; Erbe, Tübingen, Germany). Dissection was advanced up to the level of the perirectal fat, while paying attention to avoid damage to the tumor capsule. The tumor was removed en bloc (▶ **Fig. 4**) and the mucosal entrance was closed with two clips. The procedure lasted for 1 hour. The patient was hospitalized for 1 night, received oral amoxicillin/clavulanic acid for 5 days, and had an uneventful recovery. Histology showed a benign gastrointestinal stromal tumor (▶ **Fig. 4**). STER is mainly applied in the stomach and esophagus [1]. This case report demonstrates the feasibility of this technique in the rectum.

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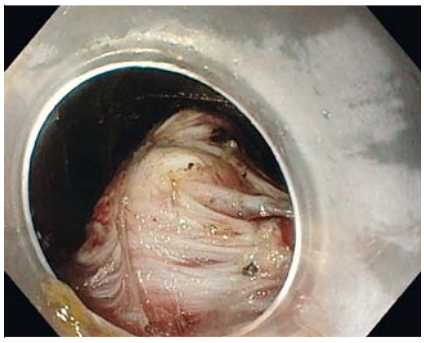
Competing interests

The authors declare that they have no conflict of interest.

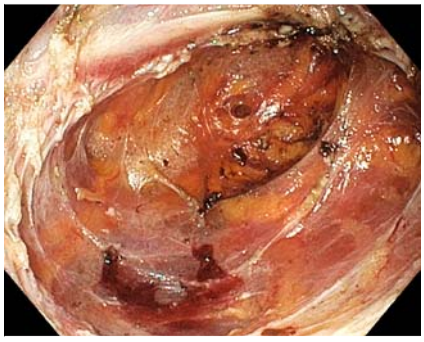
Video 1 Removal of a rectal gastrointestinal stromal tumor by means of submucosal tunneling endoscopic resection.

▶ **Fig. 1** Submucosal tumor (3 cm) of the lower rectum.

▶ **Fig. 2** Mucosal entrance of the tunnel.



▶ **Fig. 3** Partly enucleated tumor.



▶ **Fig. 4** Inspection of the pocket at the end of the procedure. The perirectal fat is visible.

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Reference

[1] Aslanian HR, Sethi A. ASGE Technology Committee. et al. ASGE guideline for endoscopic full-thickness resection and submucosal tunnel endoscopic resection. VideoGIE 2019; 4: 343–350

Bibliography

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