Endoscopic resection of large “seahorse”-shaped esophageal leiomyoma – stretching the limits of third space endoscopy

A 71-year-old man presented with intermittent dysphagia to solids for 5 months. Gastroscopy showed a large globular swelling in the lower esophagus (▶Fig. 1). Computed tomography showed a large intraluminal polypoidal soft-tissue density lesion causing luminal narrowing in the distal esophagus extending to the gastroesophageal junction (▶Fig. 2). Endoscopic ultrasound showed a large homogenous non-vascular hypoechoic lesion arising from the muscularis propria. He underwent a submucosal tunneling endoscopic resection. The procedure was performed under general anesthesia with the patient in the supine position. Steps for the resection were as follows: 1) a mucosal bleb was created 2 cm above the bulge; 2) a mucosal incision was made using a triangle tip jet knife (TTJ knife; Olympus, Tokyo, Japan); 3) submucosal tunneling extending to the lower end of the lesion; 4) dissection of the lesion from surrounding attachments to the muscularis layer (▶Fig. 3, ▶Fig. 4 and ▶Fig. 5) removal of the lesion using a standard polypectomy snare (▶Fig. 5). In this case, the mucosal incision had to be extended for removal of the tumor. The lesion was approximately 11 × 3.5 cm in size (video image). Finally, the mucosal incision was closed with multiple endoclips. There were no significant intra-operative adverse events. Histopathological examination showed features of leiomyoma. Submucosal tunneling endoscopic resection is safe and effective for subepithelial lesions of the esophagus. Using meticulous dissection techniques, the limits of third space endoscopy can be stretched for en-bloc resection of giant lesions as demonstrated in this case.

Competing interests

The authors declare they have no conflicts of interest.
Video 1  Endoscopic resection of large “seahorse”-shaped esophageal leiomyoma. En-bloc specimen of large subepithelial tumor of esophagus removed by submucosal tunneling endoscopic resection technique.