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Effective submucosal tunneling endoscopic resection (STER) of a giant esophageal leiomyoma

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Dear Editor,

Submucosal tunneling techniques have undeniably expanded the scope of therapeutic endoscopy (1). Here, we report the case of a 37-year-old female, without prior medical records, who was referred due to dysphagia. Symptoms had started six months earlier, first with episodic dysphagia...
only with solids, then with gradual worsening to daily dysphagia, also with liquids. In addition, she had lost 8% of her body weight in the last three months. An esophagastroscopy (EGD) was performed, which revealed a protuberance with macroscopically normal underlying mucosa, of 40 mm (Fig. 1A) in the distal esophagus. Endoscopic ultrasound identified a well-defined nodular hypoechoic lesion (Fig. 1B), with hypoenhancement of microbubble contrast (Fig. 1C), arising from the muscularis mucosa measuring 38 x 22 mm in the radial plane, exophytic but noninvasive. These characteristics suggested a mesenchymal lesion, most likely a leiomyoma (2). Considering this, endoscopic resection was proposed (Fig. 1D). After submucosal injection, a mucosotomy was created, 5 cm proximal to the lesion, and a submucosal tunnel was created and extended distally. Subsequently, a pearly-white submucosal tumor was identified and individualized (Fig. 1 E and F), following coagulation of the supplying vessels. Then, the lesion was removed with a snare and the tunnel was inspected for vessels and signs of perforation (Fig. 1G). Finally, the mucosal defect was closed with four through-the-scope clips (Fig. 1H). Submucosal tunneling endoscopic resection (STER) was performed under general anesthesia and the patient was admitted for three days, with prophylactic antibiotherapy. She gradually returned to a non-restricted diet. The evolution was uneventful, with complete symptom resolution during the next four months of follow-up. The histological analysis identified a fusocelular neoplasm of 6.8 x 2.5 cm expressing actin and desmin and negative for CD34, CD117, and S100, consistent with a leiomyoma; the resection margins were negative.

Leiomyomas are often detected incidentally during endoscopic or radiologic evaluations and are mostly asymptomatic. Patients with leiomyoma-associated symptoms must undergo resection; and several techniques have been reported thus far (3). STER outperforms ESD by allowing the removal of larger tumors, preserving the tumor capsule and decreasing the risk of perforation and infection (4). Furthermore, retrospective data has shown that STER is advantageous in terms of shorter procedure and hospitalization time, being also less expensive than thoracoscopic enucleation. Notwithstanding, some authors advocate that thoracoscopy may be superior for lesions with a minor axis > 30 mm or with tumor index (major*minor axis) > 1000 mm (5). Although this lesion had an index of 1700 mm, removal was technically straightforward.
References


Fig. 1.