

Title:

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Submucosal tunneling endoscopic resection for an unusually sized esophageal submucosal tumor protruding into the mediastinum

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Author contributions

Shilan-Zhang contributed to the drafting of the manuscript. Xiao Du and Xiaoyu Tang collected the writing material. Deliang Liu contributed to the conception of the study and conducted the procedure.

CASE REPORT

A 50-year-old female came to our hospital with a six-month history of upper abdominal discomfort. An upper endoscopy detected a protruding lesion that measured 3.0 × 2.0 cm at around 35-38 cm from the incisors located on the posterior wall. Endoscopic ultrasonography revealed a homogeneous hyperechoic mass located in the muscularis propria, with no malignant features. Contrast-enhanced computed tomography (CT) was also performed (Fig. 1).

A submucosal tunneling endoscopic resection (STER) was performed. A longitudinal mucosal incision was made and a submucosal tunnel was created, which uncovered an irregularly giant tumor (Fig. 2). The size of the resected tumor was 3.0 × 4.0 × 1.5 cm and the histopathological analysis identified leiomyomas. The patient was discharged seven days after the procedure and three months after the surgery there was no recurrence on the CT scan (Fig. 3). Meanwhile, the discomfort of the patient was relieved after STER and there were no severe complications during the six-

month follow-up.

DISCUSSION

Esophageal leiomyoma is a benign submucosal tumor derived from the muscularis propria layer of the esophagus (1). STER has been demonstrated to be safe and effective for treating small (≤ 3.5 cm) and solitary esophageal leiomyoma with low complication rates (2,3). Most esophageal leiomyomas grow into the lumen and their positions in the tunnel are relatively superficial and the entire surgery is comparatively safe. In this case, the tumor was very large and was close to the mediastinum, which greatly increases the difficulty of surgery. However, STER is recommended according to our experience, even in rare cases.

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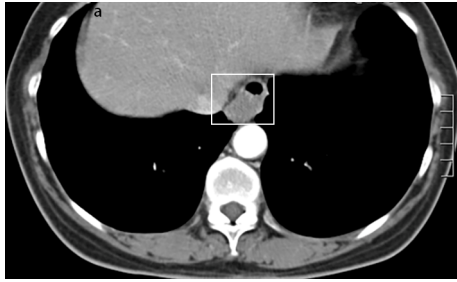


Fig. 1. Computerized tomography (CT) revealed a 2.1 × 1.9 cm hypoechoic lesion in the lower-esophagus and protruded to the mediastinal without invading the surrounding nerves and blood vessels.

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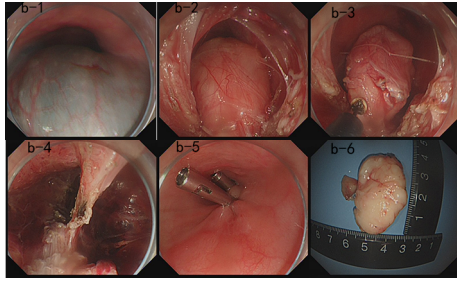


Fig. 2. A and B. Endoscopic views showing a protruding lesion in the esophagus. C. A separated lump. D. The wound surface after removal of the tumor. E. The mucosal entry point closed with two clips. F. The resected tumor.

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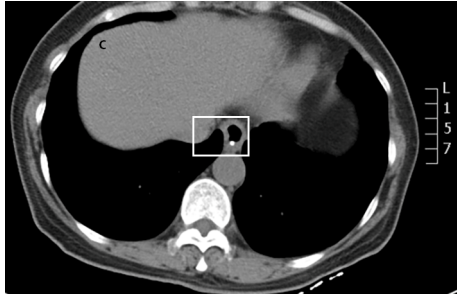


Fig. 3. CT re-examination three months after tumor removal.

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