



Successful resection of a giant pedunculated pharyngeal liposarcoma by endoscopic submucosal dissection with countertraction using grasping forceps

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Hypopharyngeal and esophageal liposarcomas are very rare and are mainly diagnosed as pedunculated submucosal tumors.¹ Mobile pedunculated tumors of the hypopharynx have the risk of causing airway obstruction and should hence be extracted.^{2,3} Here, we report a rare case of a patient in whom endoscopic submucosal dissection (ESD) with countertraction using grasping forceps was performed for a giant pedunculated pharyngeal liposarcoma.

The patient was a 75-year-old man who presented to our hospital because of difficulty swallowing. Upper GI endoscopy and CT displayed a 11-cm large pedunculated submucosal tumor with a smooth surface on the posterior hypopharyngeal wall, which extended intraluminally to the middle esophagus (Figs. 1A and B and 2). In addition, a 2-cm lipoma was detected in the right postcricoid area.

We performed ESD to remove the giant pedunculated submucosal tumor with the patient under general anesthesia to avoid the risk of airway obstruction (Video 1, available online at www.VideoGIE.org). First, a curved rigid laryngoscope (Nagashima Medical Instruments Co, Ltd, Tokyo, Japan) was inserted to provide a working space in the pharyngeal lumen. We then pulled the mobile pedunculated tumor to the oral side with the orally inserted curved grasping forceps (Nagashima Medical Instruments Co, Ltd) (Fig. 3A and B). After injecting saline solution into the subepithelial layer and while maintaining

countertraction using the grasping forceps, we resected the base of the tumor in the posterior hypopharyngeal wall by ESD using a dual knife (Olympus, Tokyo, Japan) (Fig. 4A and B). The countertraction method using grasping forceps

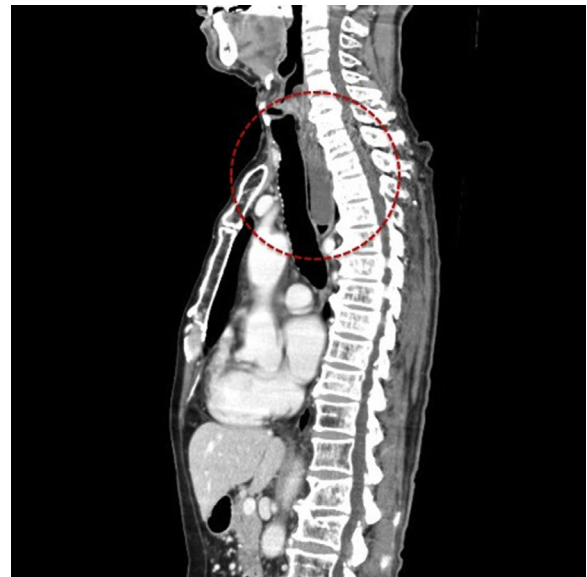


Figure 2. CT displayed an 11-cm giant tumor from the pharyngeal pyriform sinus, which extended intraluminally to the middle esophagus (red dotted circle).

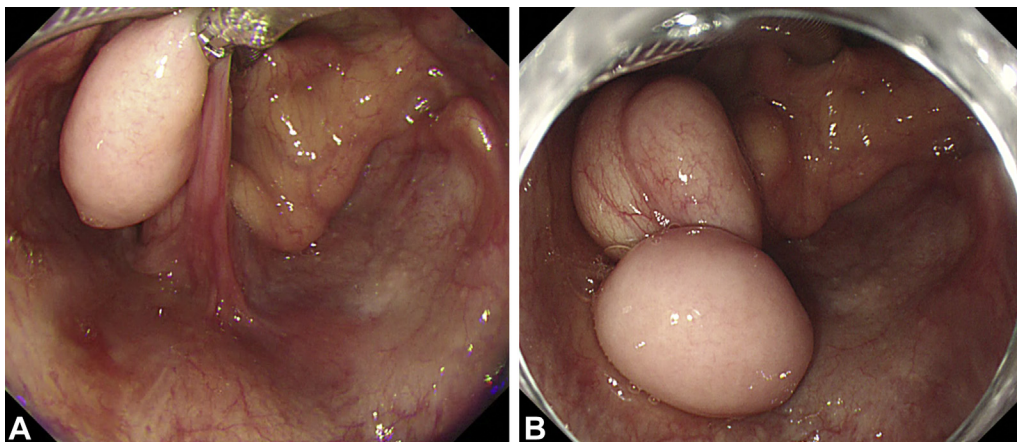


Figure 1. A and B, Upper GI endoscopy displayed a pedunculated submucosal tumor on the pharyngeal pyriform sinus.

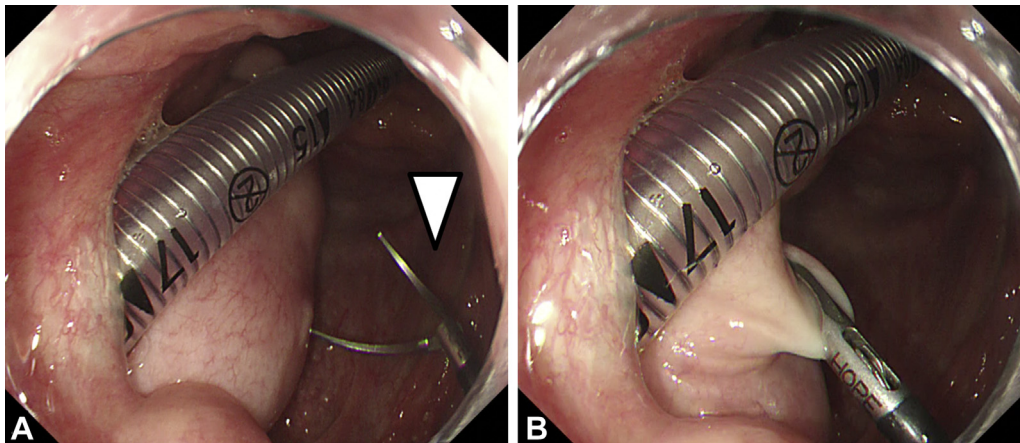


Figure 3. A and B, The mobile pedunculated tumor was pulled to the oral side using the orally inserted curved grasping forceps (*white arrowhead*).

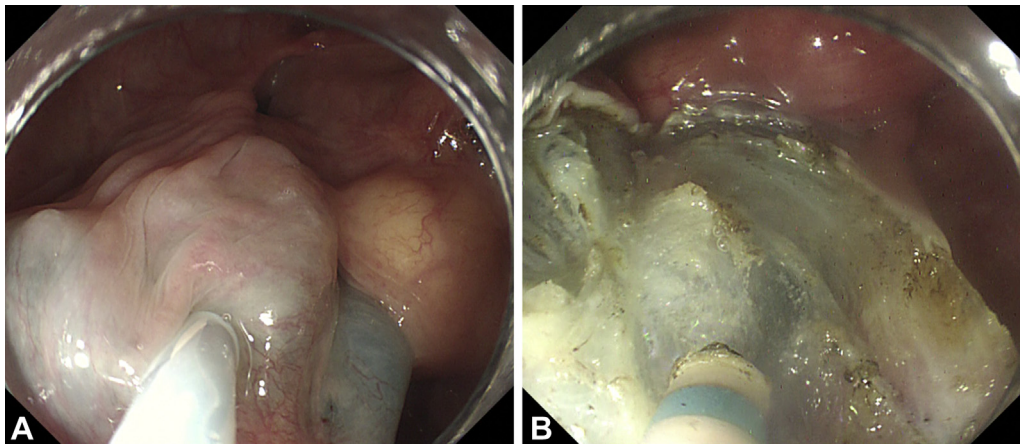


Figure 4. A, Injection of saline solution into the subepithelial layer. **B,** Endoscopic submucosal dissection of the pharyngeal submucosal tumor by countertraction using the grasping forceps.

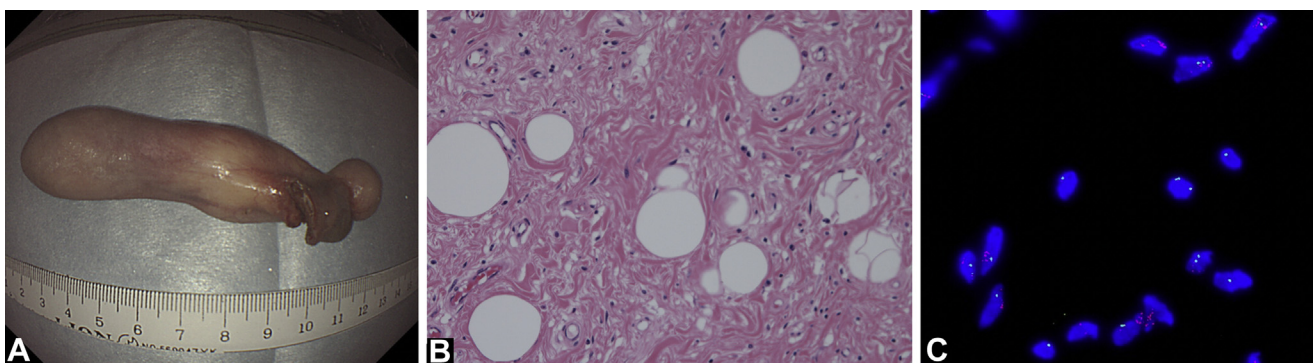


Figure 5. A, The excised specimen. **B,** Hematoxylin and eosin staining (H&E, orig. mag. $\times 200$) demonstrated that the tumor was composed of irregular adipose tissue. **C,** Fluorescence in situ hybridization analysis of the tumor demonstrated murine double minute 2 amplification.

enabled ESD to be performed safely and easily, and en bloc resection was completed in 17 minutes without any adverse events. The patient was discharged from hospital 2 days after the endoscopic treatment. The excised specimen was

$11.0 \times 4.8 \times 1.9$ cm (Fig. 5A). Histopathologic examination revealed that the tumor was composed of irregular adipose tissue, and murine double minute 2 amplification was observed by fluorescence in situ hybridization (Fig. 5B and C).

The patient was finally diagnosed as having well-differentiated liposarcoma. The patient is being followed and is alive without recurrence 11 months after the ESD.

Our present case demonstrates that ESD may be useful for making definitive diagnoses and for the treatment of pharyngeal pedunculated submucosal tumors. In addition, the countertraction method using orally inserted grasping forceps enables pharyngeal ESD to be performed safely and easily as a minimally invasive treatment.

DISCLOSURE

All authors disclosed no financial relationships.

Abbreviation: ESD, endoscopic submucosal dissection.

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