TRANSHIATAL ENUCLEATION OF ESOPHAGEAL LEIOMYOMA

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Benign tumors of the esophagus are rare. They account for fewer than 10% of all esophageal tumors, the most common of which are leiomyomas. They are frequently located in the lower third of the esophagus, and are traditionally removed surgically by thoracotomy. We report a case of esophageal leiomyoma in the thoracic esophagus that was successfully enucleated via a transhiatal approach.

Case Report

A 63-year-old female patient was referred to the Department of Surgery for further evaluation as a case of esophageal tumor. The patient gave a history of dysphagia and retrosternal heartburn of two months' duration. The dysphagia was progressive and the patient was able to tolerate liquids only. There was no loss of weight, loss of appetite, vomiting or hematemesis. The patient had no previous history of corrosive ingestion, esophageal surgery, or chest irradiation. She had no history of similar disease or malignancy in the family, and was not a smoker or alcohol drinker. Systemic review was unremarkable.

On physical examination, there was no pallor, jaundice or lymphadenopathy. Investigations revealed iron deficiency anemia, but renal and hepatic function tests were within normal limits. Barium swallow showed an extramucosal filling defect bulging into the lumen of the esophagus, with normal mucosa and regular outline. It was located just below the left main bronchus (Figure 1). Upper GI endoscopy revealed a smooth filling defect in the esophagus at 25 cm from the upper incisors. The overlying mucosa was smooth without ulceration. A chest CT scan showed the defect without lymphadenopathy, pulmonary metastases or pleural effusion. The patient was operated on through a transhiatal approach. The esophagus was dissected bluntly, taking care not to injure adjacent structures. The tumor was located below the left main bronchus and was freely mobile. The overlying muscle fibers were split and the tumor easily enucleated (Figure 2).

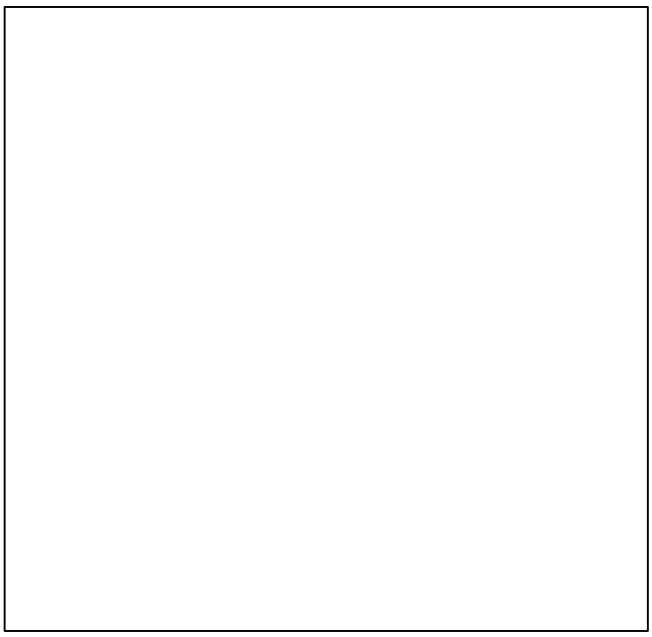

FIGURE 1. Barium swallow showing an extramucosal filling defect bulging into the lumen of esophagus with intact mucosa and regular outline.

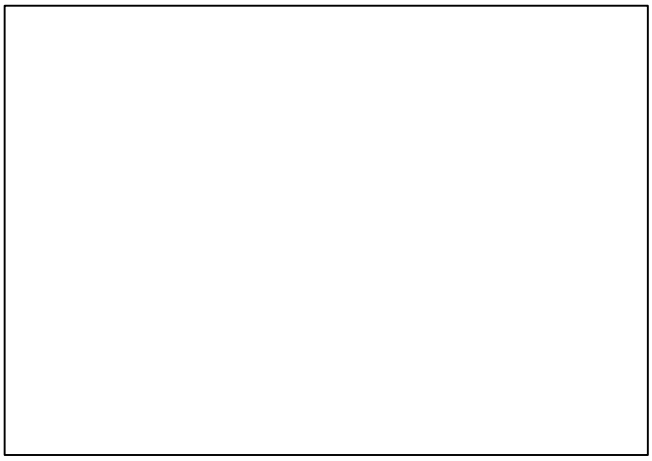

FIGURE 2. Transhiatal view demonstrating the leiomyoma after splitting the esophageal muscles.

The integrity of the esophageal mucosa was checked by injecting air into the esophagus. There was no air leakage.

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Accepted for publication 25 September 1999. Received 22 June 1999.

The longitudinal muscle fibers were approximated with interrupted sutures. The right pleura was opened, prophylactic thoracostomy tube was inserted, and an abdominal drain was fixed. The tumor was rounded, well-encapsulated and measured 2.5 cm in diameter. The cut section showed the typical whirled appearance of a leiomyoma.

Postoperatively, the patient was able to eat easily. Barium swallow done on the 5th postoperative day showed no leakage of dye, and the patient was discharged the following day. Histopathological examination of the specimen confirmed leiomyoma. The patient was followed up for 12 months, with no recurrence of symptoms.

Discussion

The vast majority of tumors of the esophagus are malignant. Benign tumors are much less common and account for fewer than 10% of all esophageal neoplasms. Although leiomyomas of the esophagus are the most common benign esophageal tumor, they are still rare. They arise from the smooth muscles of the esophagus and are frequently located in the lower third of the esophagus. Some patients remain asymptomatic. The most frequent symptoms are dysphagia, retrosternal pain and heartburn. Barium swallow and esophagoscopy are usually diagnostic.

Leiomyomas are typically rounded swellings, bulging into the lumen of the esophagus with regular outline and smooth intact mucosa. Contrast CT scan of the chest is helpful in demonstrating the lesion, as well as excluding radiological evidence of malignancy. In our patient, barium swallow, endoscopy and CT scan of chest were all diagnostic of leiomyoma. Endoscopic biopsy of the lesion is not recommended for two reasons. First, the fact that these tumors are submucosal means that the yield of the biopsy is nonspecific. Second and more important, following enucleation of the tumor, the site of the biopsy may lead to esophageal fistula. Symptomatic esophageal leiomyomas should be excised provided there are no medical contraindications.

Enucleation is the treatment of choice. Traditionally, the enucleation is carried out via thoracotomy with all its associated morbidity. The procedure is not without complications and surgical pitfalls should be anticipated and avoided. Jesic et al. successfully enucleated a leiomyoma of the lower third of the esophagus through a transhiatal approach.[1] Some authors have advocated video thoracoscopy as the technique of choice for the enucleation of esophageal leiomyomas.[2,3] Asymptomatic patients can be treated conservatively without surgical intervention.[4]

In our opinion, transhiatal enucleation of esophageal leiomyomas is a feasible approach and should be the treatment of choice. It has the advantage of avoiding thoracotomy and its associated morbidity, and prolonged hospital stay.

References

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