

Esophageal fibrovascular polyp removed by cervical esophagotomy

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Abstract

We report a case of esophageal fibrovascular polyp (FVP) removed by cervical esophagotomy. The patient was a 74-year-old man in whom an intraesophageal mass was detected by a chest CT examination during a complete medical check-up. An upper gastrointestinal series showed a large, pedunculated, cervical esophageal mass for which our preoperative diagnosis was a FVP. We studied its features, as well as removal procedures in 45 patients in the literature. Most patients had marked symptoms, but ours had no complaints, and so this case may be a rare one. Various removal procedures were reported, but thoracotomy and esophagectomy are considered to be the inappropriate procedures since FVP is a benign disorder. (*Acta gastroenterol. belg.*, 2010, 73, 514-516).

Key words : fibrovascular polyp, esophagus, cervical esophagotomy, complete medical check-up.

Introduction

A fibrovascular polyp (FVP) of the esophagus is a rare disorder with few cases in the literature. However, most reported cases have grown into large mass lesions that were often difficult to remove, and so various treatment approaches have been reported. There are marked differences in grade of invasion with such procedures because most of these lesions occur in the upper esophagus. Our case was treated successfully by a cervical approach alone, and we subsequently studied its features, as well as the removal procedures of esophageal FVP on the basis of our experience and our investigation of the literature.

Case report

The patient was a 74-year-old man in whom an intraesophageal mass was suggested in a chest CT examination during a complete medical check-up (Fig. 1). He had had no complaints and no remarkable medical history. Physical examination demonstrated no lesions or pain in the oral cavity, neck, or epigastric region. His hematological and blood chemistry findings were normal. An upper gastrointestinal series (Fig. 2) showed a large, pedunculated, cervical esophageal mass. Endoscopy revealed a large polypoid lesion with a smooth covering of epithelium, and on biopsy, focal basal cell hyperplasia was seen in the esophageal squamous mucosa, but there was no evidence of malignancy. We diagnosed FVP of the esophagus preoperatively, and then attempted endoscopic resection under general anesthesia. However, the

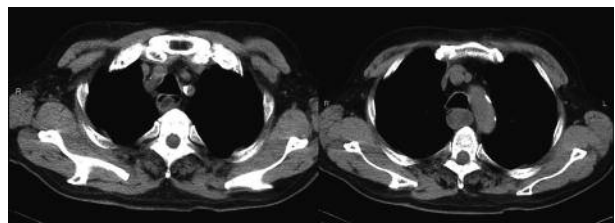


Fig. 1. — Chest CT showing an intraesophageal mass

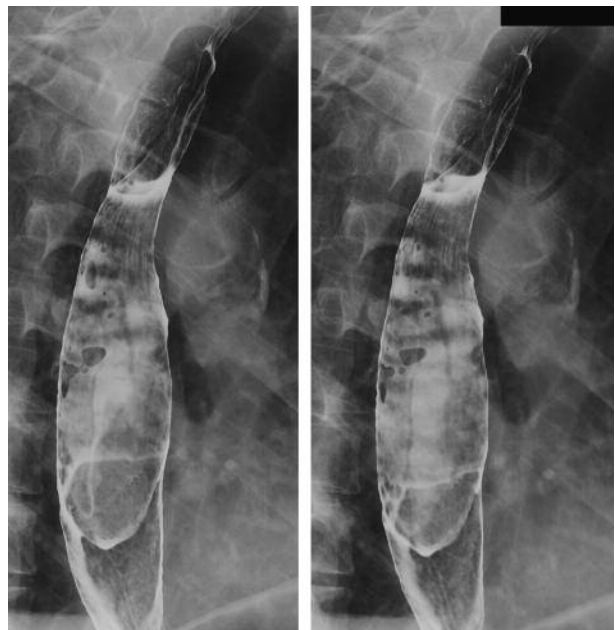


Fig. 2. — An upper gastrointestinal series revealing a large, pedunculated, cervical esophageal mass.

lesion was hardly mobile, so that the stalk could not be moved with a forceps. We realized that removal by an endoscopic procedure was impossible, and so simultaneously, a cervical esophagotomy was performed through a left neck incision revealing a large pedunculated mass measuring 9 × 3.5 × 2.5 cm (Fig. 3). Its base, which was

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Submission date : 02/11/2009

Acceptance date : 11/01/2010

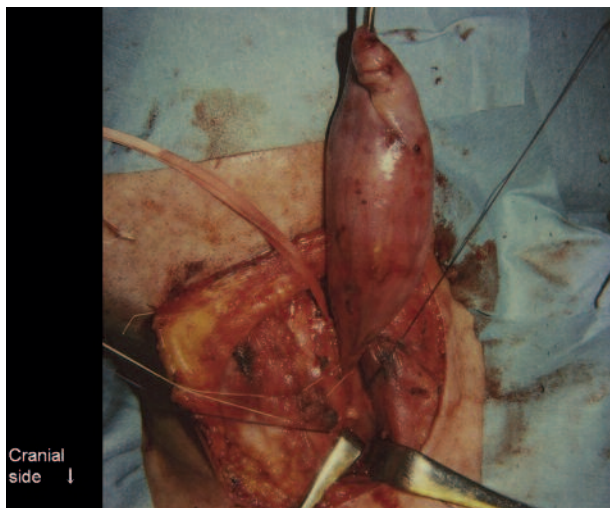


Fig. 3. — A cervical esophagotomy was performed through a left neck incision and a large pedunculated mass measuring $9 \times 3.5 \times 2.5$ cm was encountered.

just below the cricopharyngeus muscle, was ligated and excised, and the muscle was repaired with absorbable sutures. Histological examination revealed a fibrolipoma (Fig. 4) covered with squamous epithelium and the immunohistochemical staining for c-kit (CD117), S-100 protein and smooth muscle actin gave negative results, so that the final diagnosis was FVP. The patient recovered uneventfully and made good progress. At 60 months, follow-up showed no signs of recurrence.

Discussion

According to the international histologic classification system of the World Health Organization (WHO), the term FVP covers several disorders, such as lipomas, fibromas, fibrolipomas, or fibroepithelial polyps. We searched for articles using the key words FVP and esophagus on Medline, and found 83 reports (1969-2009) listed. From these, we excluded multiple accounts of the same cases, articles that were not written in English, and those that were not conform to the criteria of WHO, such as carcinosarcomas, and we were then left with 46 patients (48 lesions) (1976-2009) including the present case (Table 1). There were 30 males and 16 females, so that the gender ratio was about 2:1. The age range was from 5 months (1) to 77 years (2) (average: 54.4 years). As a result of these patients' complaints, the following symptoms were found: dysphagia, 23 cases (50.0%); regurgitations of lesions from the mouth, 18 cases (39.1%); and pain, hematemesis, cough and melena, one case each. The present patient had no complaints and the lesion was discovered during a complete medical check-up. It was unclear why he had had no complaints for a long time, and so our case may be a rare one. The sizes of the previously reported lesions ranged from 3 cm (3) to 26 cm (4) (average: 12.2 cm).

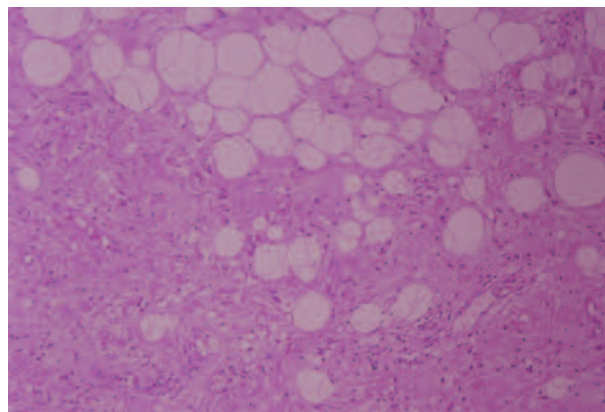


Fig. 4. — Hematoxylin-eosin staining ($\times 100$) allowed identification of the mass as a fibrolipoma.

All had stalks and all occurred in the cervical esophagus, especially near the crico-esophageal junction. The procedures used for removal of the lesions were as follows: oral approach, 12 cases (27.3%); cervical approach alone, 21 cases (47.7%); and right thoracotomy with or without other procedures, 9 cases (20.5%) (cases tagged as "Unknown" or "Autopsy" were excluded). The oral approach comprises two main procedures, namely, endoscopic snare polypectomy and open surgery with or without a laryngoscope. The oral approach may be less invasive than other approaches, but in many cases, the bases of the stalks were not sufficiently visible, even when endoscopy or laryngoscopy was used. Because most of the lesions occurred near the crico-esophageal junction, this approach carries the risk of lesions being overlooked. Two recurrent cases have been reported, one in which recurrence was seen 2 years after initial removal (5) and the other, after an 8-year interval (3). These cases may have resulted from incomplete resection at the initial removal, and since a case complicated with malignant tissue has been reported (6), it is necessary in treating FVP to perform a total extirpation including the base of the stalk. In our case, a lesion may, because of poor mobility, not be retrievable through the mouth even if its stalk has been cut by an endoscopic procedure. Thus, the indications for an oral approach are considered to be clearly visible polyp stalks and lesion mobility that is good enough to allow spontaneous regurgitation from the mouth. Cervical esophagotomy may be a procedure of relatively low invasiveness compared with thoracotomy, and has been the most commonly used method, according to the literature. This approach was considered to be an appropriate procedure in our case from the viewpoints of safety and ease, because the stalk of the lesion was sufficiently visible although the lesion occurred near the crico-esophageal junction. Therefore, precise resection was easy, and removal of the lesion from the cervical esophagus also presented little difficulty. With this approach, even if the lesions are much larger, so that they are not retrievable from the cervical

Table 1. — Review of cases of esophageal fibrovascular polyps

(1976~2009, 46 patients, 48 lesions)			
Age		Gender	
5 months ~ 77 years (Average 54.4 years)		Male 30 cases Female 16 cases	
Symptoms		Size	
Dysphagia 23 cases (50.0%)		3 cm ~ 26 cm (Average 12.2 cm)	
Regurgitation 18 cases (39.1%)			
Pain 1 case			
Hematemesis 1 case			
Cough 1 case			
Melena 1 case			
None 1 case			
		Operation techniques	
		Oral approach 12 cases (27.3%)	
		Cervical approach alone 21 cases (47.7%)	
		Right thoracotomy with or without other procedures 9 cases (20.5%)	
		Recurrence	
		2 cases (4.4 %)	
("Unknown" and "Autopsy" cases have been excluded)			

esophagus, as in the case of Chourmouzi and Drevelegas, the lesion can be successfully removed by gastrostomy (7). Right thoracotomies were performed in about 20% of cases, while most cases were treated by esophagostomy, but there were a few cases of esophagectomy (8,9). Thoracotomy is considered to be a very invasive procedure itself, and therefore should if possible be avoided. Moreover, esophagectomy may be considered an excessively invasive approach because FVP is a benign disorder, and, even though cases of local recurrence are reported (3,5), none of distant metastasis appear to have been encountered. Therefore, complete local resection of a lesion is probably sufficient, especially in cases of pedunculated FVP. Finally, these procedures should be performed under general anesthesia with endotracheal intubation to prevent asphyxiation, even when endoscopic resection is performed, because, in a case reported by Sargent (10), the patient died of asphyxiation following regurgitation of an esophageal FVP into the trachea.

Acknowledgement

The authors are indebted to Mr. C.W.P. Reynolds of the Department of International Medical Communications of Tokyo Medical University for his improvement

of the language of this manuscript. The authors report no conflicts of interest.

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