LEIOMYOMA OF OESOPHAGUS (A Report on Two Cases)

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Introduction

Benign tumours of the oesophagus are relatively uncommon compared with their malignant counterpart, [1,2,3,4] of these leiomyomas are the most common variety. These tumours lie in the smooth muscle layer of the oesophageal wall. Because of their rarity they sometimes cause difficulty in clinical diagnosis; some however may produce serious symptoms similar to those of common malignant tumours, but unlike their malignant counterpart, these benign tumours can be treated effectively by surgery with excellent results.

Oesophageal leiomyomas may rarely be multiple and Storey and Adams (1956) report their occurrence in about 7% while Allison (1967) mentions multiplicity in association with Schatzki's ring [5]. The tumour may appear in any part of the oesophagus, but the lower third is the commonest site. Johnston, Clagett and McDonald (1953) reported 53% in the lower third, 35% in the middle third and 12% in the upper third [5].

We present 2 cases of oesophageal leiomyoma treated at this hospital over a period of 6 years, their varied clinical presentation, diagnostic dilemmas, and management.

Case Report:1

A 35 year old soldier was transferred to this hospital with history of breathlessness of 4 months duration. Breathlessness was precipitated by lying down and exertion and relieved on sitting up. He had hoarseness of voice of 15 days duration. There was no history of dysphagia to solids or liquids, vomiting or loss of weight. General and systemic examination revealed no abnormality.

Routine haematological and biochemical parameters were within normal limits, X-ray chest showed a posterior mediastinal mass pushing the trachea and carina forward. Barium swallow showed a filling defect at junction of upper and lower 1/3rd of oesophagus with smooth mucosal margins suggestive of

leiomyoma of oesophagus. A CT scan showed a well defined mass lesion in the posterior mediastinum in relation to oesophagus with lower level at carina. IDL done showed restricted mobility of right vocal cord.

A posterolateral thoracotomy was done through upper border of 6th rib. Tumour was found involving upper 1/3rd of oesophagus and was dissected out from longitudinal muscle layer and mucosa and excised in toto. The longitudinal muscle layer was repaired and chest closed. Post operative period was uneventful and check Ba-swallow done showed free flow of contrast, no mucosal irregularity or hold up. Final histopathology was reported as leiomyoma of oesophagus. He was followed up periodically for 5 years and remained asymptomatic.

Case Report-2

A 35 year soldier, known case of chronic hepatitis, onset December 1998, liver biopsy reported chronic hepatitis Grade 2, (non HbsAg positive) on periodic surveillance, with Bronchial Asthma of 10 years duration maintained on Asthalin inhaler and Tab Deriphyllin retard 1BD was detected during upper GI Scopy for evaluation of chronic hepatitis to have a bulge over the middle 1/3rd oesophagus due to pressure from outside. There was no mucosal lesion. He had no history of dysphagia, breathlessness, weight loss, bone pain, haemoptysis, hoarseness of voice or puffiness of face. He however complained of exacerbation of symptoms on lying down during an attack of asthma. There was no associated eosinophilia. A barium swallow done showed a (Fig-1) leiomyoma oesophagus with significant intraluminal component.

Fibreoptic bronchoscopy showed a bulge on the posterior wall of trachea just above the carina. CT scan showed a (Fig-2) heterogeneous enhancing soft tissue eccentric mass mid oesophagus. The mass appeared to be benign, likely to be a leiomyoma. Detailed review of his history revealed an exacerbation of his symptoms during an attack when he lay down. A PFT done showed a moderate restrictive pattern. He was operated through a right thoracotomy when excision of leiomyoma was done. Post operative period was uneventful. Final histopathology reported as leiomyoma (Fig-3). He has been followed up for 6 months and his symptom of breathlessness is less pronounced during an attack of asthma.

Discussion

Oesophageal leiomyoma are rare tumours which grow very slowly within the oesophageal wall, they may attain considerable size without producing symp-

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Fig. 1 : Barium swallow showing leiomyoma mid 1/3 oesophagus compromising the oesophageal lumen

Fig. 2 : CT scan of leiomyoma oesophagus mid 1/3 completely occluding lumen

toms. [6,7,8,9]. Leiomyoma is reported to be the most common type of benign neoplasm of the oesophagus [3,6]. Of all the leiomyomas of the gastrointestinal canal (incidence varies from 5-39%) fewer than 10% are found in the oesophagus. They can be multiple or even diffuse leiomyomatosis of the oesophagus [10].

Presenting symptoms are variable, the majority presenting with dysphagia, retrosternal pain, reflux and occasionally respiratory symptoms like cough and breathlessness.

The age of presentation ranges from 20 to 60 years [12]. Barium contrast study is essential, the classical findings are a crescent shaped filling defect, a normal

Fig. 3 : Leiomyoma oesophagus (Magnification 100x)

well-defined oesophageal wall and absence of mucosal ulceration. [12]. The adherence of mucosa induced by endoscopic biopsy can make enucleation more difficult and increase the risk of perforation. Hence biopsy is not recommended.

Endoscopic ultrasound is a very sensitive method of diagnosis with good correlation between histology and ultrasound imaging characteristics. Benign submucosal tumours can be recognised by their clear elevation and circumscribed distension which are indistinct in malignant tumours.

Not all leiomyomas of the oesophagus require surgical treatment. There is a high incidence of small tumours reported at autopsy and many small undiagnosed tumours go through life without complications.

Although leiomyoma of the oesophagus was first reported in 1853 by Middleporf [12], it was Sauerbruch who in 1932 successfully removed a large leiomyoma by partial oesophagectomy and oesophagogastrrectomy. Ohsawa 1933 in Japan was the first to perform an enucleation for oesophageal leiomyoma [12]. As leiomyomas are situated intramurally they can be surgically enucleated without perforation of mucosa into lumen [13]. Local post operative recurrence is rare. Almost no mortality is reported after enucleation of these leiomyomas [12,13]. Today transthoracic enucleation or video assisted thoracic surgery, (VATS) is the procedure of choice when enucleation of tumour is done by splitting of muscularis layer of oesophagus [13].

The operative mortality and morbidity of enucleation are lower than those of partial oesophageal resection [14]. Leiomyomas less than 8 cms in diameter can be enucleated safely. [14]. During the past 3 to 4 decades there has been a significant improvement in the

results of surgical treatment of oesophageal tumours. No mortality has been reported recently compared to 2% for enucleation and 10% for partial resection of oesophagus in the 1950's [14].

Symptomatic reflux oesophagitis has been reported after surgery for lower 1/3rd leiomyomas [14].

Literature contains only one definite documented case of malignant transformation of a leiomyoma to leiomyosarcoma and when this occurs resection and reconstruction is the treatment of choice [5].

Our experience confirms the report in literature that the results of surgical treatment of leiomyoma oesophagus are excellent. When VATS becomes readily available and reasonable expertise is gained, it will be the preferred modality till that time surgery still holds the key to effective management.

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