CASE REPORT

Giant Esophageal Leiomyoma: Incidentally Found Tumor, on Thoracotomy for Bronchogenic Mediastinal Cyst

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INTRODUCTION

Benign tumors of the esophagus are rare accounting for less than10% of esophageal tumor with a prevalence of 0.5%. Leiomyoma is a benign tumor of the esophagus[1,4]. It is reported that most leiomyomas originate in the inner circular muscle layer of the distal and mid thoracic esophagus particularly at the esophagogastric junction[2]. Men are most frequently affected between 20 to 69 years. The peak incidence is in the fifth decade of life. The main symptoms are dysphagia and epigastric pain, but they are not specific for the disease[2,4]. Esophageal leiomyomas are detected incidentally during the examination of gastrointestinal diseases, of which the majority are identified during endoscopy or radiography[3].

Mostly the tumors are smaller than 5cm, those larger than 5cm are called giant esophageal leiomyomas (GEL)[1]. Small leiomyoma is treated by excision of the tumor, but GEL may require esophageal resection[5]. GEL may be misdiagnosed as mediastinal mass or esophageal cancer. Its clinical features and management is different from smaller leiomyomas[2].

We report a case of giant esophageal leiomyoma found peroperatively, initially reported on CT scan chest as Bronchogenic cyst and was treated by esophageal resection.

CASE REPORT

A 24 years old married, female, with no known co morbids came to OPD with complaints of dyspnea, chest pain and dysphagia for 8 years. She denied any weight loss. Patient was a thin built young lady with normal vitals. Examination of chest, CVS, CNS and abdomen revealed no significant findings. Chest x-ray showed non homogenous opacity in the upper and middle zone, not separated from the heart and mediastinum. CT scan chest revealed a well-defined hypodense lesion in the posterior mediastinum compressing and displacing both trachea and carina anteriorly. The mass was abutting and completely collapsing the esophagus which was barely visualized. The lesion is approximately12× 5 × 5 cm, and extended for a length of 12 cm craniocaudally. There was no calcification or internal septation (Fig.1). Rests of the viscera were unremarkable. Findings were suggestive of bronchial cyst (Fig:2) . Upper G I Endoscopy showed external compression of esophagus from 20cm to 30 cm. Mucosa of esophagus, stomach, duodenum appears normal. Hematological investigations were within the normal limits. Patient was referred to our Thoracic Surgery department for excision of the Bronchogenic cyst. After pre-operative workup, right posterolateral thoracotomy was planned. Per operatively mass of 14× 5.5× 4 cm was found arising from the wall of the middle part of the esophagus, densely adherent to mucosa (Fig 3,4).Trachea, right main bronchus and lung were normal. As the leiomyoma was large in size and densely adherent to the mucosa primary repair of the esophagus was not possible thus Ivor Lewis procedure (two stage esophagectomy) was done. Post operative recovery of the patient was smooth. The gastrographin contrast study was done on 7th postoperative day to check anastomosis leak. Patient was orally allowed on 8th post operative day. Chest tube was removed on next day and she was discharged after 2 weeks of surgery. Regular follow up showed no postoperative complications. Histopathology report confirmed the diagnosis of leiomyoma of the esophagus.

DISCUSSION

Leiomyomas are benign tumors of esophagus arising from its smooth muscle[2]. Very rarely they are greater than 5cm in size giving them the name giant Esophageal Leiomyomas (GEL)[5], as with our case the tumor was 14cm ×5.5cm ×4.5cm making it a GEL. Esophageal leiomyomas (EL) has rare tendency to bleed as compared to gastric leiomyomas, where bleeding is a common feature[2]. It can arise from any part of the esophagus, distal 60%, middle 30% and proximal 10%. They increase in size gradually[5]. It occurs more

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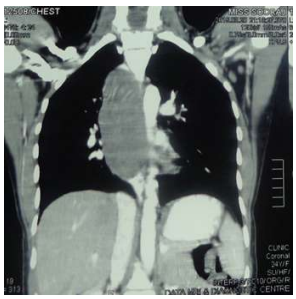

Figure 1: CT Scan Chest with contrast shows lesion in posterior mediastinum.

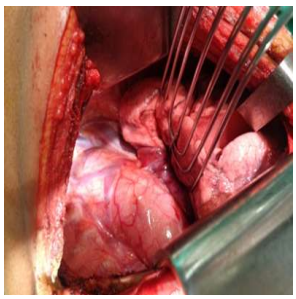

Figure 2: CT Scan Chest with contrast shows a hypodense area in the mediastinum behind the carina and pushing the carina forward and was giving the impression of bronchogenic cyst.

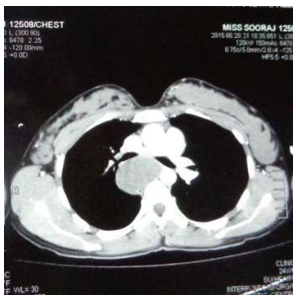

Figure 3: Arrow shows the mass (Giant Leiomyoma) arising from the posterior mediastinum covered by mediastinal pleura, behind the azygous vein.

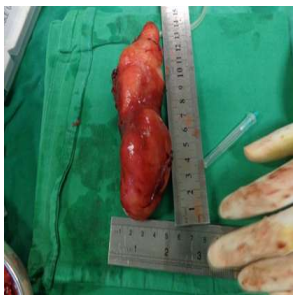

Figure 4: CT Scan of chest with contrast shows lesion (Giant Leiomyoma) in posterior mediastinum.

common in men; mean age being 40 to 50 years, contrary to our patient who was a young lady. The common symptoms are dysphagia, cough, retrosternal burning, epigastric discomfort and dyspepsia[2-5]. Our patient presented with dysphagia, chest pain and dyspnea. She was pre-operatively diagnosed as bronchogenic cyst on CT scan chest. Barium swallow, reveals even filling defect in the lumen of esophagus with intact mucosa[6]. CT scans of chest show mass seem to grow away from the esophagus and are often misinterpreted as mediastinal mass, thus create uncertainty in diagnosis, hence pre-operative diagnosis is difficult[2]. On endoscopic ultrasound (EUS), EL appears homogenous, hypoechoic with hyper echoic surrounding which differentiates between solid and cystic lesions like cyst, lipoma and hemangiomas[3]. The surgical treatment options depend on the size and location clinical features. EL up to 5 cms can be easily enucleated by myotomy. Surgical procedure for GEL esophageal resection and gastric pull up[5] as performed in our patient. For asymptomatic tumors less than 5 cm, options include Endoscopic mucosal resection EMR and endoscopic mucosal dissection EMD[7,8]. When symptomatic, require open surgery or VATS. Low sited tumors at GE junction require upper midline laparotomy with complete resection of the tumor. GEL is related to muscle atrophy and mucosa thinning, so several options are available to repair it like pedunculated pleural film, diaphragm, omentum, lung and pericardium. Possible complications after gastric pull up are gastroesophageal reflux, esophagitis, dumping, diarrhea, decreased meal capacity and weight loss[2]. Prognosis in these patients is good. Bang Cheng et al[5] suggested esophagectomy and esophagogastric anastomosis in Giant esophageal l eiomyomas, when there is diagnostic uncertainty primary repair of the esophagus is not possible. In case of leak after primary repair in GEL John et al[9] suggest cervical esophagogastrostomy.

CONCLUSION

Giant Esophageal Leiomyoma is a rare tumor. Diagnosis requires clinical, radiological and histopathological evidence. Treatment of choice is esophagectomy and reconstructive surgery when the defect in the esophagus is large which could not be repaired primarily.

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