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RESEARCH ARTICLE

MEDIASTINAL TUBERCULAR LYMPHADENOPATHY CAUSING DYSPHAGIA AND MASQUERADING AS ESOPHAGEAL LEIOMYOMA

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ABSTRACT

We report a case of mediastinal tubercular lymphadenopathy causing dysphagia in a 27-year-old female and mimicking esophageal leiomyoma on radiological imaging. On thoracoscopic assessment and biopsy, it turned out to be tuberculosis. This case report highlights the importance of keeping differential diagnosis of tuberculosis in such cases, especially in endemic regions of tuberculosis like India.

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INTRODUCTION

Mediastinal tuberculous lymphadenitis is rarely seen in adults and are usually seen in childhood as primary tuberculosis (1-2). Tuberculosis causing dysphagia is encountered in endemic areas of tuberculosis and patient with immunosuppression (3). Such patients can be misdiagnosed as esophageal neoplastic lesion and can result in unwarranted surgery or delay in treatment. We present such case of mediastinal tubercular lymhadenopathy causing dysphagia and mimicking leiomyoma on preoperative investigation. Till date, limited number of cases has been reported in literature.

Case presentation

A 27 yr old female presented with complaints of dysphagia to solid food since two months. No history of fever and no history of loss of weight or apetite. She had no history of tuberculosis in past or any family history of tuberculosis. Her BMI (Body mass index) was 18.1 kg/m^2 with ECOG (Eastern cooperative oncology group) 0 status. No generalized lymphadenopathy on clinical examination. She had no known comorbidity and no history of previous surgery.

Barium swallow showed extrinsic curvilinear impression on upper thoracic part of esophagus with smooth mucosal lining and transient proximal hold up of contrast (Fig 1). Contrast enhanced computerized tomography of chest and abdomen revealed smooth lobulated heterogeneous mass lesion in posterior mediastinum likely arising from right lateral wall of esophagus from first to sixth thoracic verterbrae and lesion closely abut trachea, arch of aorta and posterior pericardium(Fig 2). Upper G.I endoscopy showed narrowing of esophageal lumen at 22 cm from upper central incisors with smooth overlying mucosa and scope passed distally with mild resistance. She underwent EUS (Endoscopic ultrasound), which showed large hypoechoic mass arising from second layer of esophagus and FNAC (Fine needle aspiration cytology) from it was inconclusive. In view of persistent dysphagia and inconclusive FNAC report she was planned for surgery. Preoperative consent was taken cardiothoracic surgeon was also kept in back up ,in view of anticipated difficulty due to location of tumor close to trachea and pericardium. After double lumen tube was inserted and checked by fibreoptic bronchoscopy,she underwent thoracoscopic resection of mass in left lateral decubitus position.

Intraoperative biopsy was done and sent for frozen as mass seems not to be arising from esophagus and it was confirmed with intra operative endoscopy (Fig 3). Frozen shows it to be lymph nodal mass,which on final histopathology came out to be necrotizing granulomatous inflammation , likely tuberculosis. Patient was extubated next day and was allowed oral diet on second post operative day and chest tube was removed on third post operative day and patient was discharged subsequently without any complication. Currently patient is started on anti tubercular treatment and she is doing well.

Fig1 Barium swallow: Showing smooth extrinsic compression in upper thoracic esophagus with transient hold up of contrast

Fig 2 CECT Chest: Showing location of mass in upper esophagus and its relation with surrounding structures

DISCUSSION

Dysphagia due to mechanical obstruction can be due to endoluminal/mucosal, intra mural or extrinsic causes. Malignant causes of dysphagia are usually the most frequent cause of dysphagia. Mediastinal tubercular lymphadenopathy is usually a rare cause of dysphagia but it can still be found in developing countries like India, where tuberculsosis is still a menace (1,4-5).

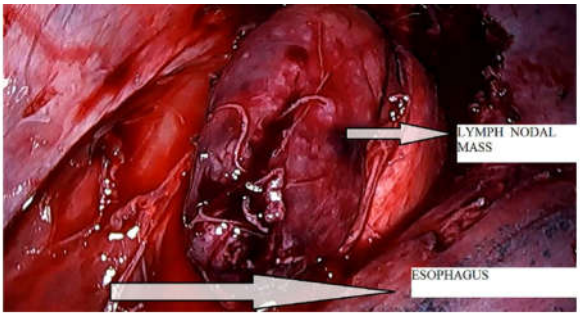

Fig 3. Intra operative image showing extrinsic compression of esophagus by lymphnodal mass

Mediastinal Tuberculosis can affect the esophagus by either externally compressing or causing dysphagia or can lead to even tracheoesophageal fistula by rupturing of the caseating lymphnodes into esophageal mucosa (6). It can present radiologically or endoscopically as submucosal tumor in cases of external compression of esophagus (7). Upper and middle zone of mediastinum are main location of enlarged mediastinal lymph nodes, with right side frequently affected more than left (8-9). EUS can help in differentiating submucosal lesion from extrinsic compression with higher accuracy than endoscopy and radiological examination (10-12). EUS was however not of much help in our case. In our case preoperatively patient was suspected to have leiomyoma and even on EUS guided FNAC diagnosis was not confirmed. So, patient was planned for thoracoscopic resection and intra operatively, it was suspected to be lymph nodal mass, so intra operatively Upper G.I endoscopy was done and which confirmed mass to be originating from outside of esophageal wall and intra operative frozen confirmed it to be lymph nodal conglomerate. In conclusion, there are various mechanisms that lead to dysphagia in tuberculosis and compression from surrounding mediastinal lymph nodes is common mechanism. Mediastinal tubercular lymphadenitis should be kept in differential diagnosis of submucosal lesion of esophagus causing dysphagia, especially in high incidence region of tuberculosis, but it should be realized that it can present with varied radiological and endoscopic findings.

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