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CASE REPORT

Esophageal Tuberculosis Mimicking Submucosal Leiomyoma- Report of a Case

Disha Sood · Tanveer Singh · Amanjeet Singh · Adarsh Chaudhary

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Abstract We present a case of primary esophageal tuberculosis presenting as solitary submucosal mass in cervical esophagus with clinical features of dysphagia, thus mimicking a submucosal leiomyoma on imaging in a 39 year old lady. Excision of this mass revealed features suggestive of tuberculosis on histopathology.

Keywords Esophageal tuberculosis · Leiomyoma · Dysphagia

Clinical Summary

39-year female presented with retrosternal pain and grade 2 dysphagia of one-month duration [1]. There was neither previous history nor family history of tuberculosis. Physical examination revealed no significant lymphadenopathy. Her chest X ray was normal. Barium swallow showed a persistent curvilinear extraneous impression on the cervico thoracic portion of the esophagus on the right side, which was smooth without any obvious mucosal fold disruption. The lower esophagus did not show any persistent hold-up, filling defect or diverticulum. An upper gastrointestinal endoscopy revealed a submucosal mass lesion in the esophagus 1×1.5 cm in size just beyond the pharyngo esophageal junction with intact overlying mucosa. Computerized tomography showed a small globular lesion along the right posterolateral aspect of trachea just below the level of thyroid closely related to upper portion of esophagus (Figs. 1 & 2). There were no mediastinal lymphnodes or any other signs of pulmonary tuberculosis. Endo ultrasonography revealed a well-defined solid homogenous lesion inseparable from the esophageal wall representing a leiomyoma. In view of persistent symptoms, patient was planned for surgery.

Using left cervical approach, the esophagus was mobilized and isolated. The muscle of the esophageal wall was then divided to expose the submucosal mass that was excised. The histopathology showed ulcerated squamous epithelium with confluent and isolated epitheloid cell granulomas composed of epithelial cells, lymphocytes and langhan's giant cells with some foci of necrosis. Stain for AFB negative compatible with tuberculosis. There was no mucosal perforation and the patient resumed oral diet after two days and was discharged on fourth postoperative day. Patient was started on antitubercular treatment and is doing well with no recurrence of symptoms at 6 months of follow up.

Discussion

Tuberculosis of the esophagus is a rare disease, which can result from swallowed infected sputum in a case of pulmonary tuberculosis or as a result of direct spread from infected pharynx or larynx. Less commonly it can be from hematogenous spread. When there is only isolated involvement of esophagus without any evidence of dissemination especially in the lungs or mediastinum, a diagnosis of primary esophageal tuberculosis is established [2]. Normal computerized tomography (CT) of the chest is mandatory before labeling a patient with primary esophageal tuberculosis even if the chest X ray is normal [3].

Esophageal tuberculosis is a rare disease with reported prevalence varying between 0.07-0.15% [4]. After a steady decline throughout the 20th century, the incidence of tuberculosis in industrialized countries has started to rise

D. Sood · T. Singh · A. Singh · A. Chaudhary (✉)
Sir Ganga Ram Hospital,
New Delhi, India
e-mail: adarsh_chaudhary@yahoo.com

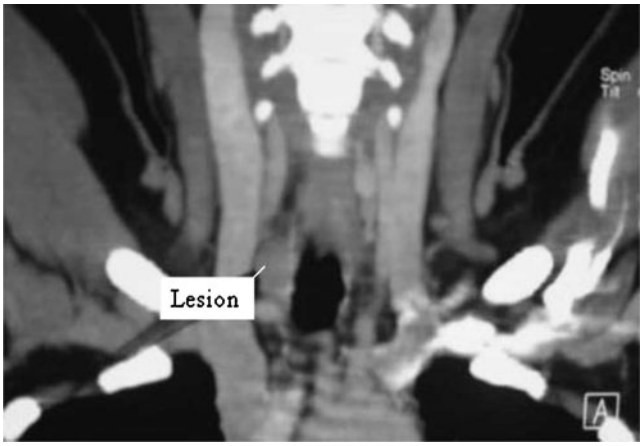

Fig. 1 CT scan on Coronal section shows a small globular lesion along the right posterolateral aspect of the trachea closely related to upper portion of esophagus

again. However, in developing countries like India the menace of tuberculosis had never been controlled. Mid-esophagus, at the level of carina is the commonest site of involvement from mediastinal lymph nodes. Upper third of esophagus may be involved by direct spread from tubercular laryngitis or pharyngitis [5].

The symptoms of esophageal tuberculosis depend on the degree and type of involvement. The most common presentation is dysphagia. It can be due to intrinsic esophageal involvement with tuberculosis or compression of the esophagus caused by tubercular mediastinal lymph nodes. In addition, mediastinal fibrosis resulting from tuberculosis can produce compression and dysmotility in the esophagus leading todysphagia. Patient may present with retrosternal pain or with complications like tracheoesophageal fistula or aortoesophageal fistula. Low grade fever, malaise, weight loss or night sweats may be the other systemic signs which may raise a suspicion of esophageal malignancy.

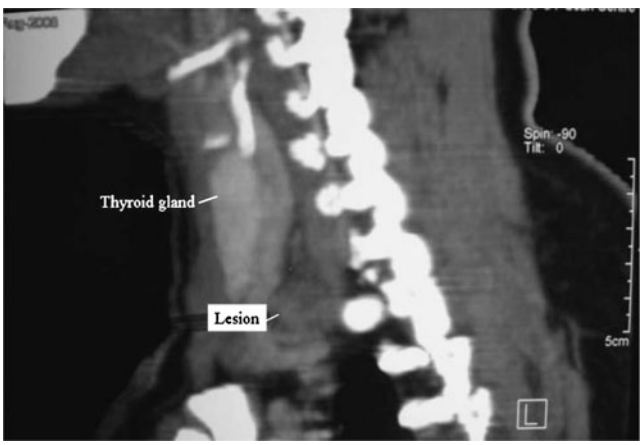

Fig. 2 CT scan on sagittal section showing globular lesion below the level of thyroid gland

There are no specific signs based on imaging that help in establishing a diagnosis of esophageal tuberculosis. Patients can present with stricture, pseudotumours, mucosal ulcers or fistulae or a sinus tract ulcerating into mediastinum [6]. Mediastinal lymph node involvement secondary to tuberculosis can cause pressure changes, adhesions or involve the esophagus, which may be picked up on imaging. Isolation of tubercular bacilli or caseating granuloma is unusual [7] and hence a combination of clinical, radiological and response to antitubercular treatment forms the basis of diagnosis of esophageal tuberculosis.

Treatment depends on the presentation of the disease. High grade dysphagia, fistulas and suspicion of malignancy warrants surgery. Others can be given a antitubercular drug trial and majority of patients respond with relief of symptoms [8].

In conclusion, this report demonstrates that esophageal tuberculosis should be considered in the differential diagnosis of dysphagia secondary to submucosal masses of esophagus in developing countries, even in the absence of manifestations of tuberculosis elsewhere.

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