

Isolated tuberculous subcarinal lymph node mass with dysphagia as primary symptom: a rare presentation

Abstract

Background: Esophageal tuberculosis is an exceedingly rare clinical entity, most often secondary to mediastinal lymph node involvement. Its presentation may mimic malignancy, leading to diagnostic challenges.

Case presentation: We report the case of a 38-year-old immunocompetent woman with progressive weight loss over 5 months, and recent-onset dysphagia for solids. Routine laboratory tests, chest radiograph, and HIV serology were normal. Upper gastrointestinal endoscopy revealed an obstructing mid-esophageal lesion. CECT thorax confirmed luminal compromise with contrast passage beyond the lesion. PET-CT demonstrated an FDG-avid subcarinal mass indenting the esophagus. Bronchoscopy revealed a fungating subcarinal lymph node mass with fistulization into the left carina. Histopathology showed granulomatous inflammation with caseation necrosis, consistent with tuberculosis. The patient commenced antitubercular therapy (ATT) with marked improvement in two weeks and complete symptom resolution at two months, gaining 3kg.

Conclusion: Tuberculosis should remain in the differential diagnosis of dysphagia in endemic regions, even when imaging mimics malignancy. Early histological confirmation can avoid unnecessary oncological interventions.

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Introduction

Tuberculosis (TB) remains a major global health problem, with an estimated 10 million cases annually [WHO 2023]. While pulmonary TB predominates, extrapulmonary TB accounts for up to 20% of cases. Esophageal TB is rare, comprising 0.3–2.8% of gastrointestinal TB cases.^{1,2} Secondary involvement from mediastinal lymphadenitis is the most common mechanism.^{2,3} We present a unique case of subcarinal tuberculous lymphadenitis causing dysphagia through compression and fistulization into the esophagus as well as carina.

Case presentation

A 38-year-old immunocompetent woman presented with 5 months of progressive weight loss without fever, cough, or chest pain. Routine blood tests were normal, HIV serology was negative, and chest X-ray (Figure 1) was unremarkable. She later developed progressive dysphagia for solids. She first presented to an otolaryngologist. Examination of upper airway was normal. She was referred to gastroenterologist for evaluation. Upper gastrointestinal endoscopy (UGIE) revealed a mid-esophageal obstructive tumor. Contrast-enhanced CT (CECT) thorax (Figure 2) with oral and intravenous contrast reported growth in the mid esophagus causing luminal narrowing with a thin streak of contrast beyond the obstruction.

PET-CT (Figure 3) demonstrated an FDG-avid mass in the subcarinal area (which was reported to be in esophagus in CT) and it was indenting the esophagus without evidence of distant disease. Videobronchoscopy (Figure 4) revealed a fungating subcarinal lymph node mass with a fistulous opening into the left side of the carina. Endobronchial biopsy revealed granulomatous

inflammation with central caseation necrosis, confirming TB. The patient commenced standard four-drug ATT. Within two weeks, dysphagia improved significantly, and after two months she was asymptomatic with 3 kg weight gain.



Figure 1 Chest Xray:Unremarkable.

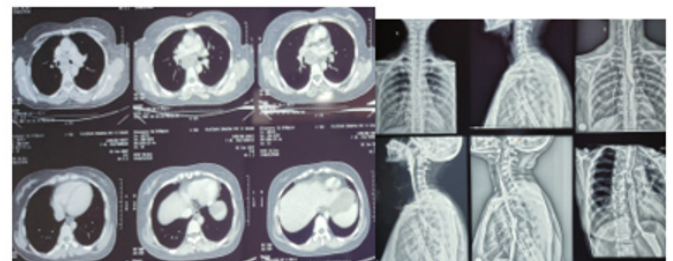


Figure 2 CT thorax with oral and IV contrast.

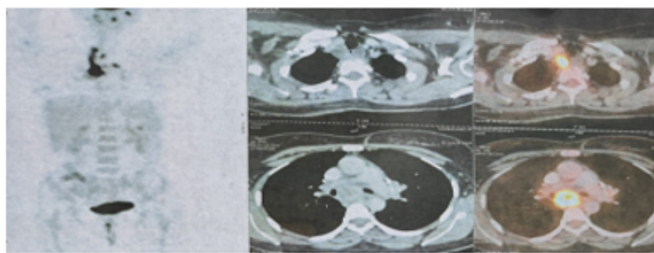


Figure 3 PET CT: FDG avid subcarinal mass.

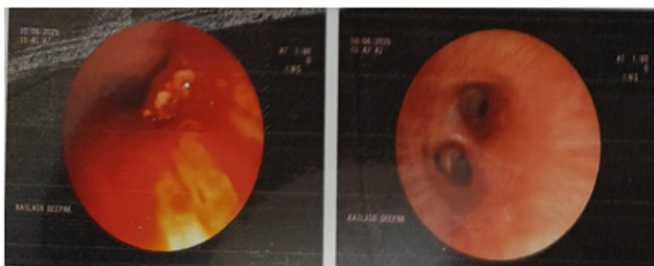


Figure 4 Subcarinal LN mass fistulizing in left carina.

Discussion

Esophageal TB is rare and often misdiagnosed as malignancy due to its endoscopic and imaging appearances.^{1,3} Involvement is typically secondary to contiguous spread from tuberculous mediastinal lymph nodes.^{2,5} In this case, a subcarinal lymph node fistulized into the carina and compressed the esophagus externally, causing progressive dysphagia. This dual airway and esophageal involvement is unusual.

FDG-PET uptake is not specific for malignancy; granulomatous inflammation may yield similar metabolic activity.⁴ Histopathological confirmation remains the gold standard for diagnosis. Our patient's dramatic improvement with ATT further supports the diagnosis.

Previous reports have described esophageal TB manifesting as ulcers, strictures, submucosal bulges, and rarely, fistulas.^{1,5,6,7} Surgical intervention is rarely required and is reserved for refractory strictures or non-healing fistulas.^{3,8}

Conclusion

This case emphasizes the importance of considering TB in the differential diagnosis of dysphagia in endemic settings, even in the absence of constitutional symptoms or chest X-ray findings. FDG-PET positivity should be interpreted cautiously, and tissue diagnosis is essential to guide appropriate therapy.

Acknowledgement

None.

Conflicts of interest

We declare that there is no conflict of interest of any kind.

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