

## Tuberculosis Presenting as Dysphagia- An Uncommon Presentation

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### 1. Abstract

#### 1.1. Introduction

Tuberculous lymphadenopathy, though typically presenting with symptoms of tuberculosis, can exceptionally manifest as dysphagia due to esophageal compression or involvement. This is a rare occurrence, particularly in adults, and can be misdiagnosed as esophageal cancer. Tuberculosis commonly affects the lungs, but it can also involve lymph nodes, particularly in the mediastinum. Dysphagia, can arise when enlarged mediastinal lymph nodes compress or invade the oesophagus. While dysphagia is a common symptom of esophageal cancer, it's a rare presentation of tuberculous lymphadenopathy, making early diagnosis challenging.

#### 1.2. Case Report

A forty year old male, not a known case of any chronic illness, chronic smoker and occasional alcoholic presented with weight loss for last three months and dysphagia for last one month. On evaluation he was found to be anaemic but rest of his labs were essentially normal. On subjecting to endoscopy, an extrinsic compression was found in mid-oesophagus, thus for determining aetiology contrast enhanced computed tomography scan was done which revealed mediastinal lymphadenopathy which was causing extrinsic compression on oesophagus. The Endoscopic bronchial ultrasonogram (EBUS) was done for taking FNAC which revealed infective pathology only and ruled out malignancy. He was put on four drug antitubercular therapy (ATT) for two months, followed by two drug therapy for four months. He showed significant improvement with three weeks and dysphagia completely subsided. His six months ATT has completed without any adverse side effects and is totally asymptomatic on follow up.

#### 1.3. Conclusion

Tuberculosis can have varied and uncommon presentations. In dysphagia, major concern is for malignancy which carries poor prognosis in majority, in contrast to tuberculosis which can completely resolved by oral ATT.

### 2. Introduction

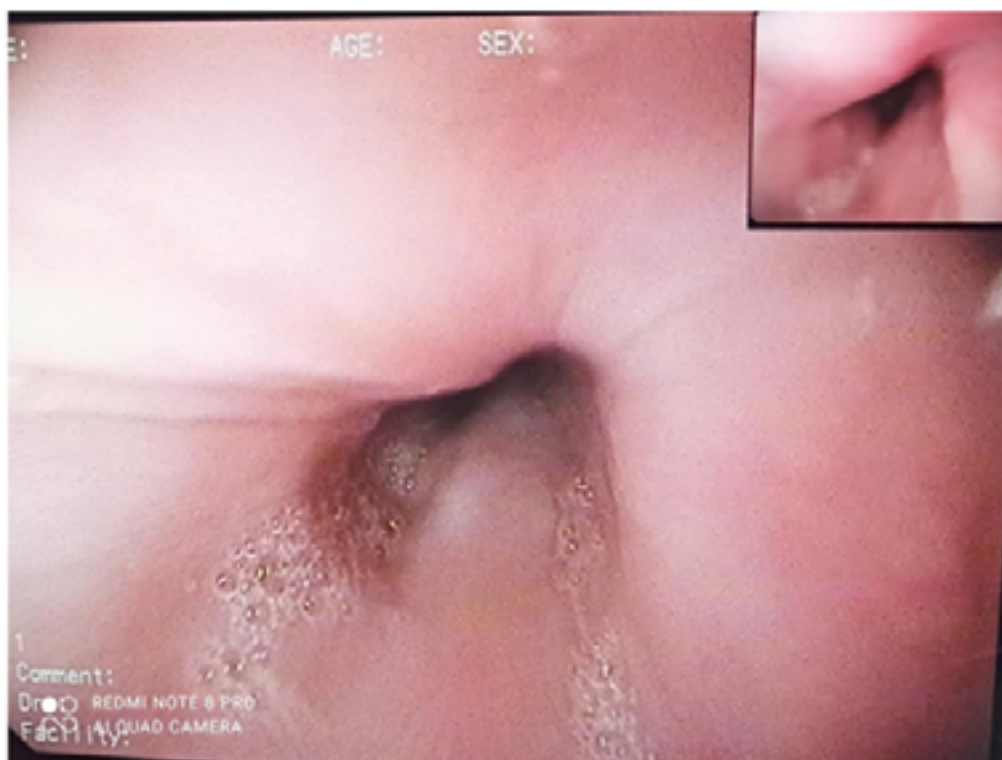
Tuberculous lymphadenopathy, though typically presenting with symptoms of tuberculosis, can exceptionally manifest as dysphagia due to esophageal compression or involvement. This is a rare occurrence, particularly in adults, and can be misdiagnosed as esophageal cancer. Tuberculosis commonly affects the lungs, but it can also involve lymph nodes, particularly in the mediastinum. Dysphagia, can arise when enlarged mediastinal lymph nodes compress or invade the oesophagus. While dysphagia is a common symptom of esophageal cancer, it's a rare presentation of tuberculous lymphadenopathy, making early diagnosis challenging. Due to the rarity of this presentation, clinicians might initially suspect malignancy, leading to delayed or incorrect treatment. The dysphagia can be caused by extrinsic compression due to enlarged lymph nodes pressing on the oesophagus, oesophageal ulceration or mass caused by tubercular infection in the esophageal wall and rarely fistula formation between the oesophagus and the surrounding structures.

### 3. Case Report

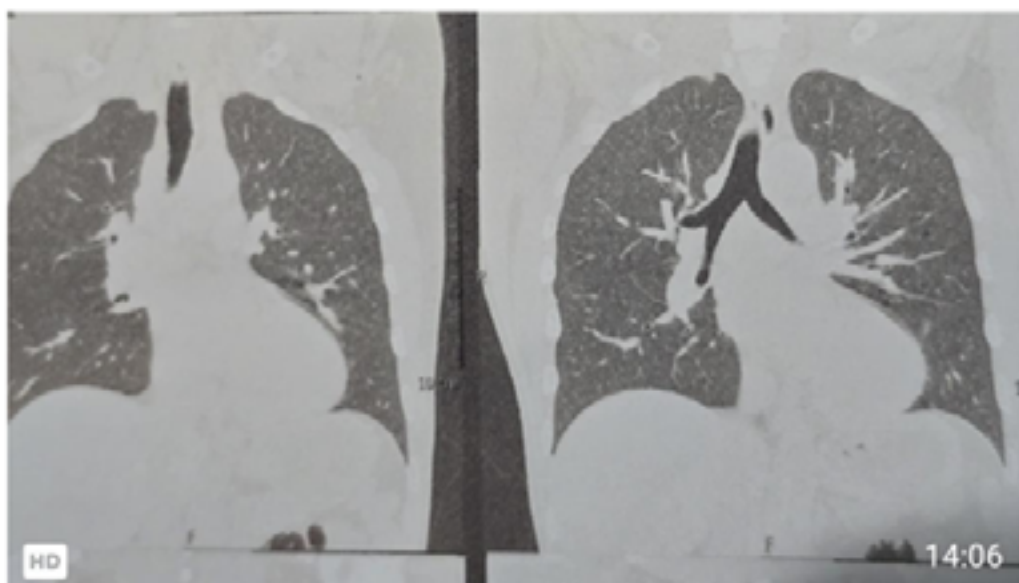
A forty year old male, not a known case of any chronic illness, chronic smoker and occasional alcoholic presented with weight loss for last three months and dysphagia for last one month. His weight loss was significant, as he lost 10% of weight in three months i.e. 7 kg (from 70 kg to 63 kg). The dysphagia was initially to liquids which later on progressed to solids which led to substantially decreased food intake. On evaluation he was found to be anaemic with haemoglobin of 9.5 gm% and low total serum protein and albumin levels but rest of his labs including blood sugar, renal function test, thyroid & lipid profile and viral screen were essentially normal. On subjecting to endoscopy, an extrinsic compression was found in mid-oesophagus, thus for determining aetiology contrast enhanced computed tomography scan was done which revealed significant mediastinal lymphadenopathy which was causing extrinsic compression on oesophagus. The Endoscopic bronchial ultrasonogram (EBUS) was done for taking

FNAC which revealed infective pathology only and ruled out malignancy. He was put on four drug antitubercular therapy (ATT) for two months, followed by two drug therapy for four months. He

showed significant improvement with three weeks and dysphagia completely subsided. His six months ATT has completed without any adverse side effects and is totally asymptomatic on follow up.



**Figure 1:** Endoscopy showing extrinsic compression in mid-oesophagus due to mediastinal lymphadenopathy.



**Figure 2:** CECT Chest showing prominent mediastinal lymphadenopathy.

#### 4. Discussion

Gastrointestinal manifestations of tuberculosis (TB) can include involvement of the gastrointestinal tract, peritoneum, lymph nodes, and/or solid organs [1]. Lymph nodes are the most common site of involvement of extra pulmonary tuberculosis (EPTB). Uncommon forms of abdominal TB include involvement of the oesophagus (2.8% of all cases of GI TB), stomach, duodenum, pancreas, and spleen [2]. Symptoms of oesophageal TB (ET) include dysphagia, odynophagia, chest pain, low grade fever, and weight loss. ET usually occurs at the middle third of

the oesophagus at the level of the carina [3]. Dysphagia is the most common presenting manifestation, although rare and occurs either due to primary involvement of the oesophagus by TB or secondary to direct extension from adjacent structures [4]. Primary oesophageal tuberculosis is very rare because of various protective mechanisms including the presence of stratified squamous epithelial cells covered with mucus in the oesophagus [5]. Most cases of oesophageal tuberculosis are secondary to direct extension from adjacent structures, such as mediastinal lymph nodes or pulmonary sites [6]. TB penetrates the mucosa and localizes in the

submucosal lymphoid tissue, where it initiates an inflammatory reaction with subsequent lymphangitis, endarteritis, granuloma formation, caseation necrosis, mucosal ulceration, and scarring. Early diagnosis and initiation of antituberculosis therapy and surgical treatment are essential to prevent morbidity and mortality [1]. Most patients respond well with ATT and patients with ET complicated with oesophagobronchial and oesophagomediastinal fistulas can be safely treated with ATT alone [7]. Patients with GI related TB should undergo multidisciplinary management with infectious disease consultation for the guidance of pharmacologic treatment. The reported complications of oesophageal tuberculosis include aspiration pneumonia, fatal hematemesis, oesophagobronchial fistula, oesophagomediastinal fistula, traction diverticula, oesophageal strictures, and amyloidosis [8]. We were lucky, that in our case, the extrinsic compression of oesophagus by mediastinal lymphadenopathy was diagnosed before any other complications in form of fistula or invasion could occur. The prompt decision of doing urgent endoscopy followed by CECT chest and EBUS confirmed the diagnosis, thus leading to early and timely starting of ATT which gave complete and fruitful result.

## 5. Conclusion

The treating team should be extra-vigilant for early diagnosis of rare presentations of disease like tuberculosis which can have multiple presentation. The early and judicious use of endoscopy can be gamechanger in patients presenting with dysphagia.

## 6. Conflict of Interest

The authors declare that there was no conflict of interest and consent was taken from patient as well as parents before publishing this case report.

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