Tuberculous Oesophagomediastinal Fistula - A Diagnostic Dilemma

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Abstract
We present an unusual case of oesophago-mediastinal fistula which posed difficulty in diagnosis. With the help of computed tomography and fine needle aspiration cytology the diagnosis was established and the cause found to be tuberculosis. The patient was treated with four drug anti-koch’s therapy.

Introduction
Tuberculosis is rampant in India and is known to affect every system. The most commonly affected organs are the lungs and lymph nodes. Here is a rare way in which tuberculosis has affected the oesophagus.

Case Report
A 37 year old male patient came to us in September 2002 with complaints of irritation in the throat since one month for which he had tried warm saline gargles and antibiotics in vain. This irritation was followed shortly by dysphagia, which the patient claimed was equal for solids and liquids. About twenty days after the first symptoms, he noticed a change in his voice. He did not give any history of fever, cough, haematemesis, vomiting, haemoptysis or breathlessness. He had no significant past medical or surgical illness. The family history too was of no consequence. On examination, his general condition was good and vitals stable. His respiratory system was clear and breath sounds were bilaterally equal. Likewise, all his other major systems were clinically normal.

The patient had come to us with an oesophago-gastroduodenoscopy which had been performed at a primary centre and had been reported as a healing oesophageal ulcer. We performed an oesophago-gastro-duodenoscopy on him on 7th of September, which revealed a fistulous opening on the right lateral aspect of the oesophagus about 20 cms from the incisors, which we assumed to be a tracheo-oesophageal fistula (Fig. 1). The scope also revealed a mild hiatus hernia with reflux oesophagitis and gastritis. Biopsies taken from around the fistulous opening histologically revealed some strips of acanthotic stratified squamous epithelium and bits of an inflammatory exudate.

A bronchoscopy was performed thereafter which revealed no endotracheal abnormality or opening

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which ruled out the possibility of a tracheo-oesophageal fistula. A computed tomography (CT) scan of the chest showed a peri-oesophageal amorphous gas collection and enlarged mediastinal lymph nodes (Fig. 2). A CT guided fine needle aspiration cytology (FNAC) of the lymph node was done and 2.5 ml of caseous material was aspirated which showed acid fast bacilli on staining.

We started the patient on Anti-Koch’s therapy with a four drug regimen involving rifampicin, pyrazinamide, isoniazid and ethambutol. Three weeks post commencement of therapy, the patients symptoms of dysphagia and hoarseness of voice have improved significantly. A repeat check oesophagogram and gastroduodenoscopy has been planned in another six to eight weeks.

**Discussion**

Past literature has revealed that oesophageal tuberculosis secondary to tuberculous mediastinal lymphadenopathy is a very unusual presentation of adult tuberculosis.\(^1\) The chest CT scans performed for the same have revealed similar findings with peri-oesophageal amorphous gas collection and enlarged mediastinal lymph nodes.\(^2\) In a few cases, oesophagography using gastrograffin has confirmed an oesophagomediastinal fistula.\(^3\) Tuberculosis is the most common cause of this disease but, moniliasis and histoplasmosis have also been noted to cause oesophagomediastinal sinuses.\(^4\)

In a few cases, early diagnosis is based on a high index of suspicion and a strongly positive Mantoux test as oesophagoscopy is non-specific in these cases.\(^5\) Fatal haematemesis from an aorto-oesophageal fistula has also been reported in one case.\(^6\) In all cases reported so far, the fistulous opening as well as the dysphagia resolved after Anti-Koch’s therapy.

**References**