



Mediastinal Tuberculous Lymphadenitis Presenting as A Mediastinal Mass With Dysphagia: A Case Report

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ABSTRACT Dysphagia due to mechanical obstruction of the oesophagus is usually related to a malignant oesophageal disease. Benign lesions causing such obstructions are quite rare and they tend to manifest themselves as intramural tumors or extrinsic compressions. Lymphadenitis due to mediastinal tuberculosis is rarely seen in adults; dysphagia caused by this disease is much more rare [1] Dysphagia due to tuberculosis is encountered in high tuberculosis incidence regions and in patients with suppressed immunity [2]. A 24-year-old male patient admitted with dysphagia diagnosed as tuberculous lymphadenitis is presented in this case report

KEYWORDS MEDIASTINAL TUBERCULOSIS, DYSPHAGIA

Case

24-year-old male patient was admitted to an internal medicine clinic with the complaint of difficulty and pain in swallowing for 15 days .He had no other digestive symptoms, denied weight loss, fever, cough, sputum and night sweating. His past medical history was unremarkable, namely exposure to tuberculosis and his family history was also unremarkable.

The physical examination revealed a blood pressure of 110/70 mmHg, pulse of 88/ min and a respiratory rate of 18/min. All systemic findings were normal. Laboratory findings revealed minimal hypochromic microcytic anaemia in complete blood count. Biochemical tests were normal. The erythrocyte sedimentation rate was 52mm/hr.

Endoscopy was planned which revealed an ulcerated lesion in mid oesophagus (from 23 cms to 25 cms).Biopsy was taken for histopathological examination.(Image 1). ChestX ray revealed right hilar lymph node enlargement (Image 2) which raised a suspicion of mediastinal lymph node enlargement which was confirmed on CECT thorax. CECT thorax revealed multiple enlarged lymphnodes in superior mediastinum, pre and para tracheal, aortopulmonary window , and largest of size (40*25 *27 mm) in right hilar region showing internal necrosis. Histopathological examination revealed acute oesophagitis with ulceration. As histopathological examination was inconclusive, Xpert MTBIRIF test based on nested real-time PCR and molecular beacon technology was done which detected Mycobacterium Tuberculosis.

Lesions improved with Category -2 Antitubercular therapy. (Image 3)



IMAGE 1: Upper GI scopy showing ulcerated lesion in oesophagus.Lymph node infiltration from outside) from 23 to 25 cms



IMAGE 2: BEFORE ATT showing Rt hilar Lymph node enlargement



IMAGE 3: AFTER COMPLETION OF ATT

DISCUSSION

Mediastinal tuberculous lymphadenitis cases with esophageal symptoms may admit in forms of esophageal ulceration, mucosal or submucosal mass with ulceration, sinus or fistula formation, external compression or dislocated esophagus.

Our case was examined for dysphagia and Endoscopy revealed esophageal ulceration.Thoracic CECT revealed that the pathology causing compression was an enlarged mediastinal lymphnode. Further examinations revealed that the mass was actually a tuberculous lymphadenitis manifesting itself as a mediastinal mass.

Differential diagnosis of formations radiologically presenting as a mediastinal mass is quite important. The system used by Felson divides the mediastinum into anterior, middle and posterior compartments by drawing a line along the front of the trachea and the back of the heart and a second line 1 cm

posterior to the anterior margin of the thoracic vertebra. This system does not classify the superior mediastinum as a separate compartment. For anterior mediastinal masses, the classic differential diagnosis is the "4 Ts"; namely, thymoma, thyroid, teratoma and terrible lymphoma. If a middle mediastinal mass is unrelated to the esophagus, the differential diagnosis include bronchogenic cyst, lymph node abnormalities (sarcoid, lymphoma, metastases) and vascular lesions.

Among lymph node diseases, tuberculous lymphadenitis has become a more important entity because it is common in patients with acquired immunodeficiency syndrome and frequently involves middle mediastinal lymph nodes. Metastatic disease usually affects lymph nodes in the anterior and/or middle mediastinum. Lung cancer is the most common primary neoplasm involving mediastinal lymph nodes. Most extrathoracic neoplasms do not commonly metastasize to intrathoracic lymph nodes, but there are exceptions. Head and neck tumors, genitourinary neoplasms (especially testicular and renal cell carcinomas), breast carcinoma, gastric carcinoma and melanoma are extrathoracic primary neoplasms with a predilection for hilar and mediastinal lymph nodes.

Posterior mediastinal masses generally represent neurogenic tumors (such as neurofibroma, schwannoma and ganglioneuroma), extramedullary hematopoiesis, hemangioma, infection and vascular lesions. In this case, the mass was located in the middle mediastinum among other mentioned compartments. Thoracic CT and MRI examinations are quite helpful in better evaluating characteristics of mediastinal masses and lymphadenopathies. The sensitivity and specificity of CT and MRI are almost equal for evaluation of lymphatic ganglions. No matter what size the lymphatic ganglion is, detection of a central necrosis and extranodal spread is very meaningful finding for metastasis. CT is a more powerful tool in detecting central necrosis or calcification^[4,5].

Lymphadenitis is the most common form of extrapulmonary tuberculosis. The infection often begins in the lungs; therefore, the most common infected sites are the regional lymph nodes, into which the lung parenchyma drains.

Although mediastinal lymph nodes are the most frequently used primary regional drainage sites, they only form 5% of the reported tuberculous lymphadenitis sites. Important pathologies caused by tuberculous lymphadenitis include compression of the adjacent tissues, caseification and disruption of the lymphadenitis and fibrosis during the healing period of the lymphadenitis. Successful control of tuberculosis decreases lung tuberculosis cases, but extrapulmonary tuberculosis (EPT) cases do not decrease in a similar ratio^[7]. Reported mediastinal tuberculous lymphadenitis cases increase in number, although this is a rare disease in adults. The literature of Tuberculous Lymphadenitis causing mediastinal compression consists of case reports only. Pimenta et al^[1] reported two cases of adult dysphagia, external compression of the esophagus were detected and surgical diagnosis was made. Rathinam et al^[2] in UK evaluated 14 tuberculous lymphadenitis cases causing dysphagia retrospectively; subcarinal lymph node pathology was detected in seven of them.

Park et al^[8] reported a quite large subcarinal lymphadenopathy, similar to our case clinically and radiologically, which caused external compression to the middle portion of the esophagus in a 34-year-old female patient and the diagnosis was made by thoracoscopic biopsy. Popli reported a case and Turner et al. reported two immunosuppressed cases admitted because of dysphagia and fever^[9,10].

Treatment with anti-tuberculosis medications is effective and surgery is only needed in the presence of complications. Our case was treated successfully with anti-tuberculosis medications. The importance of this case is the rarity of tuberculosis in manifesting itself only with mediastinal tuberculous lymphadenitis with an atypical presentation of severe dysphagia.

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