

Case Report

Mediastinal tuberculosis in adult: case report

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ABSTRACT

Mediastinal lymph node enlargement commonly seen in sarcoidosis, lung cancer, lymphoma and tuberculosis in children's. Tuberculosis in adult mostly involve parenchyma of lung and very rarely involve mediastinal lymph nodes, here we report a 27-year-old male, non-diabetic, non-hypertensive, non-alcoholic and non-smoker who present with low grade fever and dry cough. Search for the cause of morbidity revealed him to be suffering from mediastinal tuberculosis. He was treated for tuberculosis with ATT.

Keywords: EBUS-TBNA, Granuloma, Hemoptysis, Mediastinal lymph node

INTRODUCTION

Tuberculosis is very common disease in india often involving lung parenchyma. Mediastinal involvement in tuberculosis is quite common in pediatric patients, very rarely mediastinal involvement is seen in adults.^{1,2} Mediastinal tuberculosis present as wheezing, persistent cough and often associated with evidence of enlarged lymph nodes on chest X ray, and is common in immunodeficient adults, Isolated mediastinal tuberculosis is uncommon in immunocompetent adults. It seems useful to sensitize all clinicians by reporting a case observed in our institution.³

CASE REPORT

27-year-old male, non-diabetic, non-hypertensive, nonalcoholic and nonsmoker who present with low grade fever with evening rise, without chills and rigor and dry cough. No complaint of dyspnea, weight loss, night sweats, joint pains or hemoptysis. On examination patient was normal looking, pulse rate 80/min, regular, BP 110/70 mm of Hg, respiratory rate 18/min, JVP was not raised and no lymph nodes were palpable. CVS examination revealed apex beat in 5th left ICS with both

S1, S2 normal, no added sounds or murmur. Abdominal examination did not reveal any organomegaly. Respiratory examination revealed normal vesicular breath sounds bilaterally with no wheeze or rales and Neurological examination was normal.

Investigations revealed microcytic hypochromic anaemia in complete blood count, ESR was raised, 70mm/1hr. Biochemical examination was normal. Chest X-ray was normal. USG shows no organomegaly or abdominal lymphadenopathy and sputum examination shows no Acid-Fast Bacilli. Then Thoracic CT with contrast revealed nodes in paratracheal, pretracheal, prevascular, aortopulmonary window and left hilar region, largest measuring 15×11 mm showing central area of relatively low hypodensity.

In view of presence of chains of lymph nodes, to rule out sarcoidosis, S.ACE Level and s.ca level was done which comes out to be normal. Further EBUS-TBNA of lymph node was done and bacteriological examination of the aspirate by RT-PCR shows mycobacterium tuberculosis complex, cytological examination shows no malignant cells and histopathological examination shows no caseating granuloma.

Diagnosis of mediastinal tuberculosis was made and patient was treated as per WHO guidelines of ATT.

DISCUSSION

Lymphadenitis is the most common extrapulmonary tuberculosis (TB) manifestation which, in developed countries, occurs more frequently in childhood, but also among adults from endemic countries and in HIV-infected people. Isolated and asymptomatic mediastinal lymphadenitis is uncommon in immunocompetent adults.¹ It is uncertain whether it represents a primary infection or a reactivation of a latent nodal focus.² Mediastinal involvement may occur with or without parenchymal disease. It has to be distinguished from lymphoma, sarcoidosis, metastatic malignant disease, and fungal disease such as histoplasmosis.

The diagnosis of MTB in an isolated intrathoracic lymph node enlargement can be difficult. In cases where the chest radiograph is abnormal and the tuberculin skin test is positive, many clinicians would treat the patients and assume that favorable outcome confirms the diagnosis of TB. However, if a precise diagnosis is to be made and/or drug resistance is suspected, in particular among patients with HIV disease, this requires invasive procedures with potentially known complications to obtain tissue.³ Since the studies of Dahlgren and Nordenstrom and Sinner, FNAB has become a well-established procedure in the investigation of pulmonary and mediastinal masses.^{4,5} It can be performed under fluoroscopic or CT guidance. The advantage of performing biopsy under fluoroscopic guidance is that it is faster and less expensive and may be associated with less complications. However, CT-guided FNAB was performed in our patients because of the following: (1) lesions were immediately adjacent to major cardiovascular structures; (2) small hilar and mediastinal masses were not seen or were poorly seen on fluoroscopy; (3) under CT guidance, it was possible to document that the needle was actually in the lesion; and (4) a precise estimation of the site of the lesion and its distance from the skin was much more reliable than that

with fluoroscopy. Several studies have described the sensitivity of FNAB in the detection of mycobacterial infections.⁶ The FNAB smear has certain distinct cytomorphologic features that help to diagnose granulomatous disease.⁷ In addition, the aspirated material can be stained for AFB to provide a rapid diagnosis.

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