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Case report

Disseminated tuberculosis mimicking lymphoma

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Abstract

Disseminated tuberculosis may rarely present with a clinical picture similar to lymphoma. We present the case of a 30 year old male with mild constitutional symptoms, generalized lymphadenopathy and hepatosplenomegaly who was diagnosed with disseminated tuberculosis. He had an excellent response to antituberculosis therapy.

Key words: Disseminated tuberculosis, Lymphoma, Lymphadenopathy

Introduction

Disseminated tuberculosis (DTB) continues to be a diagnostic problem even in areas endemic to tuberculosis, where clinical suspicion is very high. This may be due to non-specific clinical presentations. Disseminated tuberculosis mimicking lymphoma is rarely reported[1].

Case summary

A 30 year old male, bank manager, presented with a one month history of low grade fever, loss of appetite and weight. He gave no history of haemoptysis, cough, chest pain and breathlessness. He was a non-smoker with no history of alcohol and drug abuse. There was having no history of contact with a tuberculosis patient. Physical examination revealed multiple, hard, mobile and tender lymph nodes of approximate size 2x2 cm, bilaterally in the cervical, axillary and inguinal region. On physical examination, coarse crepitations were present in right infrascapular area. Hepatosplenomegaly was present. Hematological and bio-chemical investigations were with in normal limits. Tests for human immunodeficiency virus infection were negative. Mantoux test was negative (4 mm induration after 72 hours). Chest radiograph revealed presence of air space consolidation in lower zone of the right lung (figure:1) and computed tomographic scan (CT) of chest showed consolidation in right middle lobe and apico-posterior segment of left upper lobe along with right paratracheal, pretracheal, precarinal and subcarinal lymphadenopathy (figure:2-3).

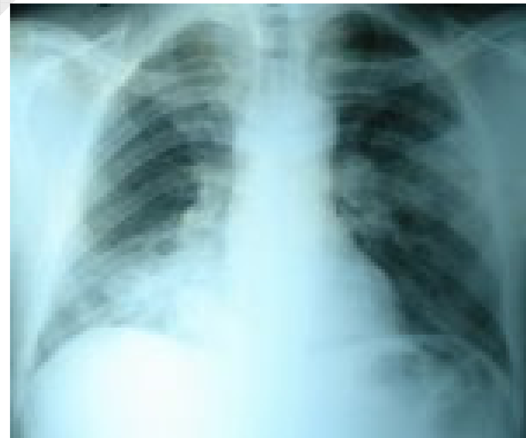

Fig 1: Chest radiograph revealed presence of air space consolidation in right lower zone and left mid zone

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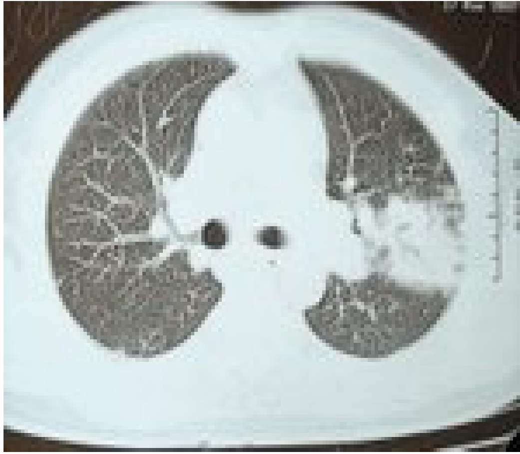

Fig 2: *CT scan of chest showed consolidation in apico-posterior segment of left upper lobe.*

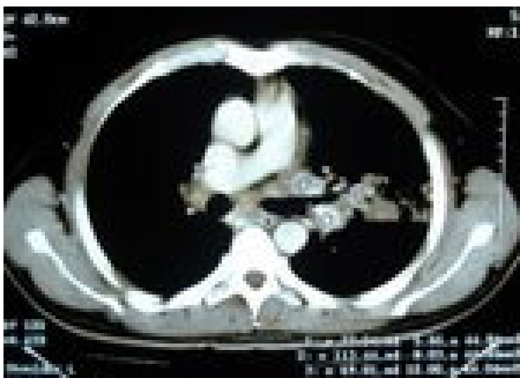

Fig3*: CT scan of chest showed right precarinal and subcarinal lymphadenopathy*

Ultrasound of the abdomen also revealed the presence of hepatosplenomegaly along with para-aortic lymphadenopathy. Mild constitutional symptoms, generalized lymphadenopathy, hepatosplenomegaly with a negative mantoux test raised the clinical suspicion of lymphoma. However, histology of cervical lymph node showed caseating granuloma. Bronchoalveolar lavage obtained via fibreoptic bronchoscopy was positive for acid-fast bacilli (AFB) and Bactec culture for mycobacterium tuberculosis was also positive in cervical lymph node biopsy specimen. He was diagnosed as a case of AFB positive disseminated tuberculosis. A standard six months treatment was started: a combination of isoniazid, rifampicin, pyrazinamide, and ethambutol was started for two months followed by isoniazid and rifampicin for a further four months. Following this, he showed clinical as well as radiological improvement and on regular follow up had no further symptoms.

Discussion

DTB refers to involvement of two or more non-contiguous sites. Dissemination can occur during primary infection or after reactivation of a latent focus/re-infection[2]. DTB may mimic as lymphoma[1,3] or may occur in patients of lymphoma[4]. DTB may mimic other diseases as mentioned in **Table 1**:(given below)

DTB is particularly common in patient with acquired immunodeficiency syndrome[5-6] (our patient was HIV seronegative). Even in areas endemic to tuberculosis, a diagnosis of disseminated tuberculosis is often difficult as the clinical presentation is usually non-specific. Contrast enhanced CT scan can be useful in differentiating between tuberculosis and untreated lymphomas of the abdominal lymph nodes. Tuberculous lymphadenopathy commonly showed peripheral enhancement, frequently with a multilocular appearance, whereas lymphomatous adenopathy characteristically showed homogenous attenuation[7].

The following criteria[1] have been suggested for the diagnosis of DTB:

1. Clinical features suggestive of tuberculosis;
2. Concurrent involvement of at least two non-contiguous organ sites; or

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demonstration of Mycobacterium tuberculosis in the blood or bone marrow;
3. Microbiological and/ or histopathological evidence of tuberculosis;
4. Marked improvement on antituberculosis therapy. Delay in confirmation of the diagnosis often leads to the further delay in instituting specific antituberculosis therapy and significantly contributes to the mortality.

Table 1:

Differential Diagnosis	Presentation
Tuberculosis	○ Fever with evening rise pattern, anorexia, weight loss and respiratory complaints ○ Lymph node may be discrete or matted.
HIV	No sign and symptom other than persistent generalized lymphadenopathy
Lymphoma	○ remittent fever, weight loss ○ Lymph node are discrete, elastic and rubbery
Syphilis	Painless, firm, discrete lymph node which do not suppurate Epitrochlear and occipital lymph nodes are involved.

References:

1. Hanania N, Hoffstein V. Tuberculosis presenting with generalized lymphadenopathy, pulmonary infiltrates, and bone destruction in a young man. Arch Intern Med 1993; 153: 1265-8.
2. Sharma SK, Mohan A. Extrapulmonary tuberculosis. Indian J Med Res 2004; 120: 316-53.
3. Köylü R, Tozkoparan E, Pabuşçu Y, Ciftçi F, Bilgiç H, Seber O. Unusual miliary tuberculosis presenting with generalized lymphadenopathy and abdominal involvement. Int J Tuberc Lung Dis 1997; 1(5): 474-6.
4. Staples WG, Getaz EP, Botha D. Disseminated tuberculosis, bone marrow nerosis and lymphoma: a case report. S Afr Med J 1977; 52(17): 680-3
5. Hill AR, Premkumar S, Brustein S, Vaidya K, Powell S, Li P-W, et al. Disseminated tuberculosis in the acquired immunodeficiency syndrome era. Am Rev Respir Dis 1991; 144: 1164-70.
6. Long R, O'Connor R, Palayew M, Hershfield E, Manfreda J. Disseminated tuberculosis with and without a miliary pattern on the chest radiograph: a clinical -pathological-radiologic correlation. Int J Tuberc Lung Dis 1997; 1: 52-8.
7. Yang ZG, Min PQ, Sone S, et al. Tuberculosis versus lymphomas in the abdominal lymph nodes: evaluation with contrast enhanced CT. AJR Am J Roentgenol 1999; 172: 619-23.

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