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Research Article

**AN ATYPICAL PRESENTATION OF A PULMONARY
TUBERCULOSIS PATIENT, A RARE CASE REPORT.****¹Dr Zainab Manan, ²Dr Junaid Zeb, ³Dr Shafiq-ur-Rehman, ⁴Dr Muhammad Shoaib.**
¹⁻⁴ MBBS, Ayub Teaching Hospital, Abbottabad.**Article Received:** April 2020**Accepted:** May 2020**Published:** June 2020**Abstract:**

Tuberculosis (TB) is a leading cause of mortality worldwide, with a growing mortality rate. We present a rare case of atypical presentation of pulmonary TB in a 26 years old male patient, who presented to outpatient department with complaints of fever and generalized weakness for last 5days. Fever which was high grade intermittent, more at evening time with no other associated symptoms and treated with Levofloxacin and Moxifloxacin. Patient was vaccinated with BCG at birth. Socioeconomic history was satisfactory. On examination patient had only pleural rub at left lower lung zone with no other significant positive sign. Routine baseline investigations were normal with normal ESR value. However, patient's X-ray chest showed left sided pleural effusion. Ultrasound guided diagnostic pleural tap was done which showed total proteins of 5g/dl, LDH 1920U/L, glucose 57mg/dl, ADA of 25IU, no AFB seen, along with negative culture and gene expert. ICT-TB showed negative IgG and IgM antibodies. Patient was treated empirically with Anti Tuberculosis drugs(ATT) and 30mg steroids (prednisolone for 20days). Clinically patient responded to ATT with regression of symptoms and after 20days of therapy patient was fully normal on examination as well as x-ray showed no pleural fluid and ATT was then continued for 6months with full recovery of patient.¹³ As evidenced by this case in which all serological tests recommended for tuberculosis were normal and patient presented with a short history and then responded very well to the empirical treatment of ATT.

Key Words: Tuberculosis, Pulmonary tuberculosis, Pleural Biopsy, Pleural effusion, Acid fast Bacilli.

Corresponding author:**Dr. Zainab Manan,**
MBBS, Ayub Teaching Hospital, Abbottabad

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INTRODUCTION:

Tuberculosis (TB) is a leading cause of mortality worldwide, with a growing mortality rate.¹ Studies showed that in pre chemo era 70% sputum positive TB patients died within a decade and figure was 20% among culture positive pulmonary TB.² The enormous global burden of TB is due to poor control in developing countries.³ Tuberculosis (TB) is generally associated with the involvement of the respiratory system; however, it can affect any organ. Pleural tuberculosis is the most frequently occurring extra pulmonary TB among adults.⁴ Mycobacterium tuberculosis is the leading infectious cause of death from any single organism in adults. More than two billion people are estimated to be infected with TB worldwide. It usually involves the lungs, but can also present as extrapulmonary TB. (Approximately two thirds of people will have pulmonary tuberculosis while less than a third of immunocompetent individuals will have extrapulmonary tuberculosis alone) The diagnosis of extrapulmonary TB can be difficult and often requires a high index of suspicion. We present a case of TB that manifested as a tubercular retropharyngeal abscess⁵.

CASE REPORT:

A 26 years old male patient presented to outpatient department at Ayub Teaching Hospital (ATH) Abbottabad with complaints of fever and generalized weakness for last 5 days, which was high grade intermittent, more at evening time with no associated other symptoms. There was no other complaint of cough, sputum, weight loss etc. Patients had already taken Levofloxacin and moxifloxacin as outdoor medication with no

improvement. Patient was vaccinated with BCG at birth. Socioeconomic history was satisfactory.

On examination patient had only pleural rub at left lower lung zone. Rest of examination was normal. Routine baseline investigations were normal with Hb of 14.7gm, WBCs 8.02×10^3 with raised monocytes (15%), platelets were 236000 and normal ESR (14). Patient X-ray chest showed, left sided pleural effusion with no hilar lymphadenopathy, consolidation or ground glass appearance as shown in **fig:1**. Ultrasound was done **fig: 2**, which showed mild splenomegaly and thick loculated pleural fluid on left side. Ultrasound guided diagnostic pleural tap showed total proteins of 5g/dl, LDH 1920U/L, glucose 57mg/dl, ADA of 25IU, no AFB seen and culture was negative after 48hrs of incubation period (aerobic and anaerobic), fluid cytology didn't reveal any abnormal cells. Gene expert was also done with negative findings. Hematological report of fluid showed RBCs 3000/ μ L, WBCs 1610/ μ L with 80% lymphocytes. ICT-TB showed negative IgG and IgM antibodies. Due to reluctance of patient, the gold standard investigation "Pleural Biopsy" couldn't be done and hence patient was treated empirically with Anti Tuberculosis drugs (ATT) and 30mg steroids (prednisolone for 20days). Clinically, patient

responded within a week of therapy with no symptoms and after 20days therapy, patient was fully normal on examination as well as x-ray showed no pleural fluid and ATT was then continued for 6months with full recovery of patient.

fig:1. X-ray chest showing left sided pleural pleural effusion.



fig: 2. Ultrasound chest showing left sided effusion.



DISCUSSION:

In our case patient presented with an acute history of febrile illness and pleural effusion only, in the absence of cough, dyspnea or chest pain, in contrast to the usual documented presentation of TB as a chronic disease with specific symptoms of cough, dyspnea, hemoptysis, malaise, fever and weight loss.⁵ After thorough review of literature we didn't find any case presenting with such an acute history, although a case of TB presented in India with pleural effusion and symptoms for four weeks.⁶

In most of pleural TB cases lung parenchyma is involved concomitantly.⁷ Our patient's radiological investigations didn't show any sign of pulmonary involvement like nodular lesions, consolidation or ground glass appearance, the usual signs of pulmonary TB.⁷ Similarly a case of TB is a major global health concern with increasing atypical presentations. Extrapulmonary tuberculosis (EPTB) occurs in about 25% of TB patients, and if left untreated can lead to significant morbidity and mortality. It is necessary for clinicians to be aware of the various manifestations of pulmonary TB and EPTB. Our patient demonstrates the value of keeping a wide differential and not relying on one lab finding when considering the diagnosis of TB. Despite negative AFB sputum and pleural fluid with only mildly elevated pleural ADA levels on initial evaluation, a diagnosis of EPTB was confirmed. Given his typical presentation of a cavitary lung lesion and exudative lymphocytic pleural effusion, further workup with pleural biopsy was pursued and showed granulomatous changes typical of pleural TB. The patient may have become immunocompromised with recent topical corticosteroid use for treatment of atopic dermatitis contributing to a rapid clinical deterioration. While TB is more commonly diagnosed in developing countries, it remains prevalent in the United States though may present in unique ways. Interestingly, this patient has had multiple negative purified protein derivative (PPD) skin tests since immigrating to the United States 30 years ago. While this patient was immunocompetent, he had TB exposure as a medical technician. It should be remembered that common symptoms including fevers, night sweats, and cough are often absent in the elderly. Including TB in the differential for elderly patients with pulmonary lesions or lymphadenopathy who lack classic symptoms can allow for the prompt diagnosis of and treatment of active pulmonary TB. 22 year old male has been reported in Turkey whose CT scan showed multiple pleural nodules without lung parenchymal involvement and lymphadenopathy.⁸

Conventional diagnostic tests for tuberculosis have several limitations with poor sensitivity and specificity of different commercial tests and are often unhelpful in establishing the diagnosis of extrapulmonary TB.⁹⁻¹³ As evidenced by this case in which all serological tests recommended for tuberculosis were normal and patient presented with a short history and then responded very well to the empirical treatment of ATT.

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