ABSTRACT

Hepatic tuberculosis is a rare clinical entity and a frequently forgotten cause of pyrexia of unknown origin. Most of the patients remain asymptomatic with hepatic involvement. Since tuberculosis remains a potentially curable disease, an awareness of its manifestations is very essential. We are reporting a 26 year old male who presented with fever of unknown origin. Further investigations showed hepatic tuberculosis as a cause of pyrexia of unknown origin. Patient responded well to antituberculous treatment. The presence of isolated tubercular foci in the liver without any evidence of tuberculosis in lung or other extra-pulmonary site prompted us to report this case.

KEY WORDS: Pyrexia, Unknown Origin, Liver, Tuberculosis

INTRODUCTION

The incidence of TB underwent a resurgence in the 1980s, and the World Health Organization (WHO) estimates that 8.7 million people develop active tuberculosis disease and 1.4 million die from TB annually.\(^1\) While the incidence of active tuberculosis likely peaked in 2004, the proportion of extrapulmonary tuberculosis cases continues to rise.\(^2\) The first recorded case of hepatic TB was reported in 1858 by an English physician Dr. John Syer Bristowe.\(^3\) 10–15% of patients with pulmonary tuberculosis have hepatic involvement. They usually present with high-grade fever, upper abdominal pain, weight loss and hepatomegaly. 35% cases have jaundice which is obstructive.\(^4\) Although tuberculosis is common in Pakistan yet hepatic tuberculosis is very uncommon and it can present as a case of pyrexia of unknown origin. We present a case of pyrexia of unknown origin as hepatic tuberculosis which was diagnosed and treated successfully. The patient had no past history of tuberculosis and investigations did not reveal evidence of tuberculosis in the lungs or in the abdomen. The rarity of hepatic tuberculosis coupled with the involvement of the liver in isolation and outside the “miliary” setting forced us to report this case.

CASE REPORT

A 26 year old male, non smoker, nursing assistant presented to us with two weeks history of high grade intermittent fever and cough with scanty white mucoid sputum. His appetite was normal and there was no weight loss. He had no past history of TB, asthma. General physical and systemic examination was normal. Total leucocyte count was 8500 cells/mm\(^3\) (differential cell count of N 70%, L26%, E03%, B1%). Erythrocyte sedimentation rate was moderately raised (50 mm at 1 hr. by Westergren's method). Liver functions and renal functions were normal. Blood, Urine and stool Culture were negative. Mantoux test was positive. Sputum examination and culture was negative. Chest radiograph and Pulmonary function tests were normal. X-Ray abdomen did not show any hepatic calcification. Blood for HIV, HBsAg and HCV were negative. Brucella mellitensis agglutination test was negative. Bone marrow aspiration done from sternum was normal. Figure-1 showed high grade intermittent fever in the temperature chart. The macroscopic appearance of liver biopsy showed cylindrical brown coloured tissue measuring about 3 cm in length and microscopic picture showed number of tubercles consisting of epitheloid cells with Langhan's giant cells and central area of caseation. (see figure-3). Hence the diagnosis of this patient was Hepatic tuberculosis.

Patient was started on anti-tuberculous treatment. The patient became afebrile within two weeks (figure 2 showed the settling of fever after treatment) and general condition improved markedly and discharged to continue treatment as an OPD case with regular follow up with antituberculous treatment for 1 year. He made an uneventful recovery and gained 5 kg of weight and he rejoined his service.
DISCUSSION

The presence of hepatomegaly in a patient with Pyrexia of Unknown Origin should merit consideration of hepatic tuberculosis. Hepatic tuberculosis is a potentially curable disease. Diagnosis of hepatic tuberculosis is difficult and often gets delayed because of its vague clinical presentation. Liver biopsy with mycobacterial culture is considered the most specific test for diagnosis of hepatic tuberculosis. Although the liver is frequently involved by haematogenous spread of the tubercle bacillus, the lesions tend to heal spontaneously. The basic lesion is a granuloma which is very frequent in the liver of a patient with both pulmonary and extrapulmonary tuberculosis. Levine classified hepatic tuberculosis into five groups as miliary tuberculosis, pulmonary tuberculosis with liver involvement, primary hepatic, focal abscess, or tuberculous cholangitis. Low oxygen tension in liver tissue makes environment unfavorable for mycobacteria. Resolution of fever has been noted to occur within two weeks of initiating treatment, and appetite generally improved earlier. Hepatomegaly is usually found with an increase in alkaline phosphatase and normal transaminase levels. There is association of portal hypertension or biliary tract bleeding with hepatic tuberculosis. Ultra-guided liver biopsy is generally preferred to improve the sampling and increase the diagnostic accuracy. AFB smear had a median sensitivity of 25% (range: 0-59%) among hepatic tuberculosis case series. Mycobacterial culture provides the strongest evidence of hepatic tuberculosis, but the sensitivity has been reported to be <10%. Histological evidence of caseating granulomas had a median sensitivity of 68% (range: 14-100%) among hepatic tuberculosis case series. A diagnosis of hepatic tuberculosis based on hepatic granulomas may be supported by tuberculosis detected elsewhere in the patient. Anti-therapy should be initiated upon diagnosing hepatic tuberculosis, and considered in cases where clinical suspicion of hepatic TB is high. Treatment should be continued for 12 months. Hepatotoxicity, or drug-induced liver injury (DILI), is the most common adverse effect among patients receiving isoniazid, rifampin, and pyrazinamide.

CONCLUSION

Common things are common, tuberculosis is common in Pakistan, hepatic tuberculosis must be considered in a case of pyrexia of unknown origin even though x-ray chest may be normal.

COMPETING INTERESTS

There is no competing interest declared.

REFERENCES


