

Hepatic Tuberculosis: Uncommon Presentation of A Common Disease-A Case Report with Literature Review

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Abstract Hepatic tuberculosis is a rare form of tuberculosis with non specific signs and symptoms which requires a high index of suspicion to reach a diagnosis. Usually has three forms of presentation in the form of miliary tuberculosis with liver involvement, granulomatous hepatitis and local hepatic tuberculosis. Usually requires guided tissue sample with histopathological examination for diagnosis. Here we are reporting a case of hepatic tuberculosis with multiple hepatic nodules who presented with fever and non specific symptoms and treated with anti-tubercular drugs followed by resolve of signs and symptoms.

Keywords: hepatic hypoechoic lesions, hepatic tuberculosis, antitubercular therapy

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1. Introduction

Tuberculosis is one of the commonest disease and an ever growing burden in a country like India. Tuberculosis may present with variable manifestations and may involve different organs. However, localized hepatic tuberculosis is a rare clinical form of tubercular infection. It may involve in primary and secondary form of tuberculosis. It presents with non specific symptoms and a high index of suspicion is needed to reach a diagnosis of hepatic tuberculosis.

2. Case

52 years old female patient not known to be diabetic and hypertensive presented with history of fever with pain abdomen for one month. The patient developed yellowish discoloration of sclera and urine for one week with constipation for 4 to 5 days. On examination the patient was febrile and icteric. She had a tender hepatomegaly. Her initial reports revealed hyperbilirubinemia, predominantly conjugated, with high serum alkaline phosphatase. Her SGOT and SGPT were mildly raised. Her total counts were raised with neutrophilic leucocytosis. Erythrocyte sedimentation rate was elevated. Blood for HbsAg and anti HCV was negative. Treatment was started on the lines of cholangitis with antibiotics, intravenous fluids and other supportive care. Sonography abdomen revealed hepatomegaly with multiple hypoechoic lesions in the liver. Contrast enhanced CT scan abdomen showed

hepatomegaly with multiple small hypodense lesions, minimal ascites. Sonography guided Fine needle aspiration cytology from hepatic granuloma revealed inflammatory cells with caseating necrosis. Pleural fluid analysis showed transudative effusion with low cell count. Blood culture was sterile. Mantoux test was positive. The patient continued to have fever despite ongoing antibiotics. After considering radiological finding, histopathology finding and mantoux test, the patient was started on anti-tubercular regimen with regular monitoring of liver function test. The patient received four drug regimen that included isoniazid, rifampicin, ethambutol and pyrazinamide for two months in intensive phase and isoniazid, rifampicin together in continuation phase under direct observation. Few weeks after anti-tuberculosis treatment, fever subsided, pain abdomen subsided and liver enzymes started normalizing including serum alkaline phosphatase and bilirubin levels. Patient was continued on anti-tubercular regimen and a review CECT abdomen was done 2 months later which showed reduction of liver size as compared to the previous CT finding with complete resolution of the hepatic granulomas. The patient was diagnosed as a case of hepatic tuberculosis in the form of multiple hepatic nodules that responded to anti-tubercular drugs.

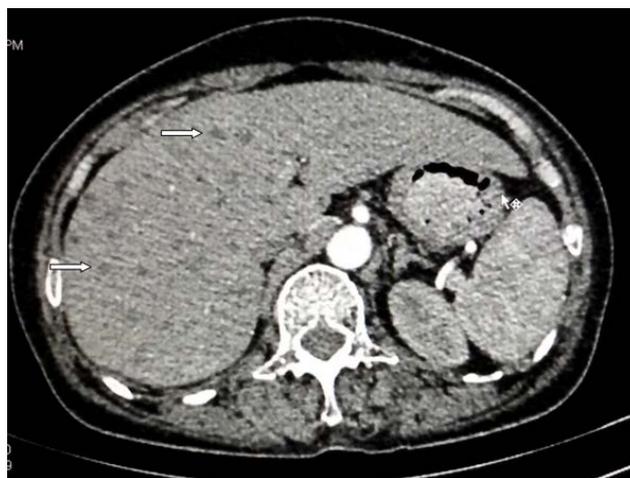
3. Discussion

Tuberculosis is one of the commonest infection in India. India carries more than 20 % of world's TB burden with 3.4 million cases. [1] With widespread use of anti-tubercular drugs in the 1940's the prevalence of

tuberculosis decreased quickly. However, due to inadequate public health measures, government complacency regarding the tuberculosis problem, intravenous drug abuse, HIV coinfection, multidrug resistance and an increased number of immunocompromised patients, the incidence rates have increased in recent years. [2,3] Tuberculosis can lead to involvement of many organs, isolated or multiple at the same time. However, isolated involvement of liver without disseminated disease is rare. [4,5] Hepatic tuberculosis can present in three forms. The commonest form of hepatic involvement is diffuse hepatic involvement seen along with miliary tuberculosis in 50 to 80% of patients who succumb to pulmonary tuberculosis. Granulomatous hepatitis as the second form is diffuse hepatic infiltration without recognizable pulmonary involvement. The third rarer form presents as a focal tuberculoma. [6] They may undergo caseation and liquefaction giving the appearance of abscess. To diagnose a case of hepatic tuberculosis a high index of suspicion is needed. The variable clinical presentations with no consistent clinical and biochemical features makes diagnosis of hepatic tuberculosis very difficult. Usually the presentation is non specific and constitutional in nature. The clinical presentation of hepatic tuberculosis includes epigastric pain, mild fever, jaundice, lethargy, hepatomegaly, splenomegaly, raised alkaline phosphatase, raised GGT, leucocytosis, raised ESR and as fever of unknown origin. However, the pathogenesis of miliary tuberculosis involving liver and focal hepatic tuberculosis is different. In case of miliary tuberculosis the bacilli reach the liver through hematogenous dissemination whereas in hepatic tuberculosis the bacilli reaches the liver from the intestine via the portal vein. The granulomas are nearly always situated inside the lobules and it is situated in portal region in the local hepatic form. [7] As the findings are non-specific imaging methods are of little value in hepatic tuberculosis. Imaging methods are sensitive in detecting hepatic nodules, however differentiating it from conditions such as metastases, fungal infections and lymphoma is difficult. [8] Liver biopsy followed by histopathological examination is the most reliable diagnostic method in case of hepatic tuberculosis. [9] In areas where tuberculosis is endemic, patients should be considered for empirical therapy with antitubercular drugs particularly when there is a lack of etiological diagnosis. [10,11] Our case presented with non specific symptoms with impaired biochemical parameters, unresponsive to supportive care with radiological evidence of multiple nodules in liver which on songography guided FNAC and histopathological examination showed features of caseating necrosis that after starting antitubercular regimen showed significant improvement in clinical condition followed by improvement in laboratory parameters.

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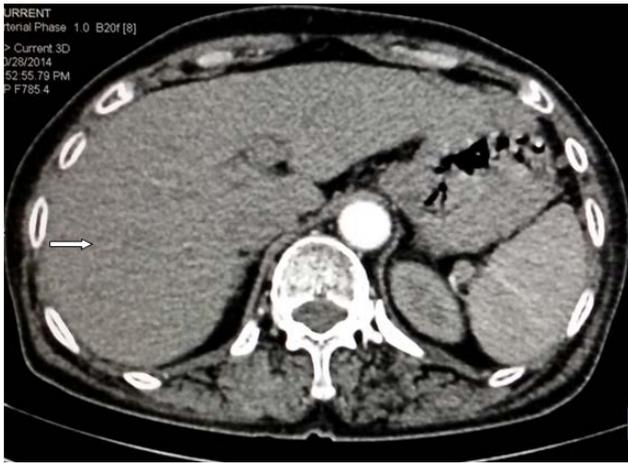
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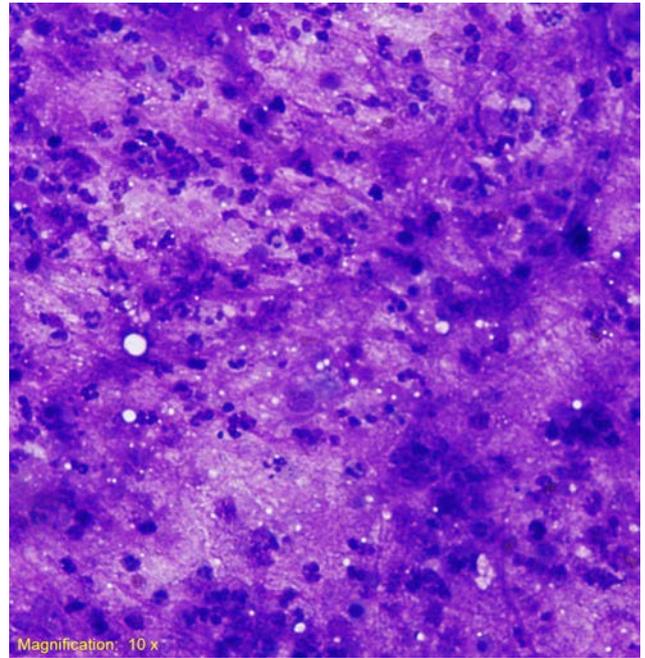
Legends to figure 1. CECT of abdomen (axial section) showing multiple hypoechoic nodules (hepatic tubercular nodules)



Legends to figure 2. CECT of abdomen (coronal section) showing multiple hypoechoic shadows (hepatic tubercular nodules)



Legends to the figure 3. CECT of abdomen (axial section) taken after two months of anti-tubercular therapy showing disappearance of tubercular nodules from liver.



Legends to the figure 4. Smear shows inflammatory cells with caseous necrosis.