A Case Report: Isolated Liver Tuberculosis

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Abstract

Isolated liver tuberculosis is still considered a rare condition and atypical clinical presentation challenges the clinical acumen of the treating physician. There is difficulty in reaching the correct preoperative diagnosis of a nodular hepatic tuberculosis that presents as a space-occupying lesion. It is usually unsuspected and confused with primary or metastatic carcinoma of the liver. In this report, we describe a rare case of isolated liver tuberculosis without pulmonary spread.

Keywords: S0L in Liver . Liver tuberculosis

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Introduction

Tuberculosis remains an important public health problem in Bangladesh. Isolated liver tuberculosis (ILT) is still considered a rare condition and hepatic tuberculosis is usually associated with an active pulmonary or miliary tuberculosis [1,2]. Liver involvement in tuberculosis is usually clinically silent. Isolated hepatic tuberculoma (syn. nodular hepatic tuberculosis, macronodular hepatic tuberculosis) is the rarest form of local hepatic tuberculosis [3]. Tuberculosis presenting as an isolated liver tumor, without active pulmonary or miliary tuberculosis, or other clinical evidence of tuberculosis, is distinctly rare [4]. In this report, we describe a rare case of isolated liver tuberculosis without pulmonary spread.

Case Report

A 32-year-old male patient was admitted with right upper-abdominal pain and feeling of abdominal distention for a year. There was no history of exposure to tubeculosis. The patient was well and the vital signs were stable. Physical examination showed local epigastric tenderness without hepatomegaly. Laboratory data revealed normal serum hemoglobin level, a white blood cell count with slightly increased eosinophils, normal erythrocyte sedimentation rate, normal liver and renal function tests, and normal coagulation tests. Tumor markers including alpha-fetoprotein, CEA, CA 19-9 were normal. Viral marker s: HbsAg, anti Hbc was also negative. FBS was high and pt was diabetic getting insulin. There was no radiological finding of tuberculosis in the Chest X-ray. Liver ultrasonography showed a rounded Hypoechoic area measuring about 1.9cm seen in the right lobe and pancreatic calculi with mildly dilated main pancreatic duct[MPD]. ERCP was also done showing pancreatic calculi in the head region with mild dilation of the MPD. Computed tomography of the abdomen showed multiple hypodense lesions in the right lobe of the liver (Figures 1-2) with pancreatic stones and enlarged head of the pancreas suggestive of chronic pancreatitis with mass lesion on the head of the pancreas with possible hepatic metastasis. Upper GIT endoscopy and colonoscopy revealed normal findings.

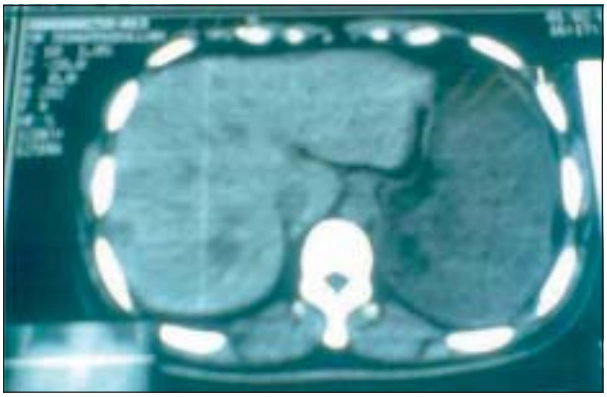

Fig.-1: *Axial CT scan showing a multiloculated, cystic mass in the right lobe of the liver.*

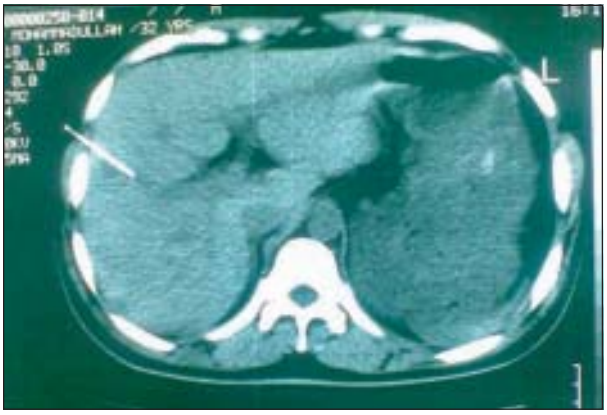

Fig.-2: *CT guided FNAC of the liver*

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CT guided FNAC of the liver was done Fig.-2. Histopathological report revealed granulomatos tissue with areas of caseous necrosis and classic tubercles on the background of hepatocytes.No malignant cells were seen.

The patient was discharged with anti TB including Isoniazid 300mg/day, rifampicin 600mg/day, pyrazinamide 1500mg/day and ethambutol 1500mg/day were administered for two months and isoniazid 300mg/day and rifampicin 600mg/day were subsequently administered for four months. Patient also was getting insulin and metformin for diabetes.After treatment, the patient was followed up for eight months without encountering any problem.Follow up CT also revealed resolution stage.

Discussion:

There are three forms of hepatic tuberculosis. Diffuse hepatic involvement with pulmonary or miliary tuberculosis is the most common form seen in 50% to 80% of patients dying of pulmonary tuberculosis. Diffuse hepatic infiltration without recognizable pulmonary involvement is the second form.Our case was in the second form. The third very rare form presents as a focal/local tuberculoma or abscess. ILT is the rarest form of local hepatic tuberculosis [5]. Kok et al reported an overall incidence of 0.3% for isolated hepatic tuberculosis[6]. Hepatic tuberculosis lesions that appear as masses larger than 2mm in diameter are referred to as macronodular and pseudotumoural tuberculosis. On the basis of imaging examinations alone, these lesions are virtually indistinguishable from many other focal lesions of the liver, such as hepatocellular carcinoma, metastases and Hodgkin's disease, so pathological examination is necessary for diagnosis [3].

Isolated hepatic tuberculosis results from tubercle bacilli gaining access to the portal vein from a microscopic or small tubercular focus in the bowel. The clinical presentation of ILT is so rare and atypical that it challenges the clinical acumen of the treating physician[2].

The difficulty is reaching a correct preoperative diagnosis of nodular hepatic tuberculosis that presents as a space-occupying lesion. It is usually unsuspected and confused with primary or metastatic carcinoma of the liver, as in our case. Radiological findings of hepatic tuberculosis are not specific although multiple hypodense lesions have been described on CT scan in cases of macronodular tuberculoma of the liver [7].In our case we have also seen the same CT features. The radiologic diagnosis of hepatic tuberculoma is difficult and histopathologic diagnosis is required to distinguish tuberculosis from lymphoproliferative disorder, metastatic deposits and other granulomatous disease like sarcoidosis and fungal infection. Establishing the diagnosis is not easy, especially if there is no history of previous tubeculosis exposure. The definitive diagnosis could be done with tests on histological and bacteriological evidence of tuberculosis. The histological picture of hepatic tuberculoma is usually that of a large epitehloid tumour composed of conglomerate tubercles with central caseation necrosis. Langerhans-type gaint cells may be found in the granuloma and are surrounded by lymphohistiocytic cells, plasma cells and eosinophils [8]. In view of the nonspecific presentation and imaging appearance of the disease, a high index of suspicion is required to obtain a preoperative diagnosis [9]. In this case, the diagnosis was established by USG guided FNAC. A PCR assay can be done for identification of *Mycobacterium tuberculosis* in liver biopsy specimens. The importance of establishing the correct diagnosis cannot be overstated, since untreated abdominal tuberculosis carries a 50% mortality rate [10,11].

Conclusion:

Preoperative diagnosis of isolated liver tuberculosis that presents as space occupying lesions is difficult. It is mostly confused with primary or metastatic carcinoma of the liver.

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