

A case report: Isolated Liver Tuberculosis

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Abstract:

Isolated liver tuberculosis is still considered a rare condition and its atypical clinical presentation challenges the clinical acumen of the treating physician. There is difficulty in reaching the 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. In this report, we describe a rare case of isolated liver tuberculosis.

Key words: Liver granuloma, 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 involvements in tuberculosis is usually clinically silent. Isolated 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.

Case Report:

A 48-year-old female was admitted in Hepatobiliary surgery division BSMMU with right upper-abdominal pain and weight loss for six months and occasional fever. The patient's vital signs were stable. Physical examination showed epigastric tenderness without hepatomegaly. Laboratory data revealed normal serum hemoglobin level, normal white blood cell count with, normal erythrocyte sedimentation rate, normal liver and renal function tests, and normal coagulation tests. Tumor markers alpha-

fetoprotein, CEA, CA 19-9 and CA-125 were normal. There was no radiological finding of tuberculosis in the X-ray chest. Liver ultrasonography showed multiple hypodense lesions in both lobes of the liver. Computed tomography of the abdomen showed a multicystic lesion involving both lobes of the liver (Figures 1-2). Upper GIT and colonoscopy were normal.



Fig-1: An axial CT scan showing a multiple hypodense areas in both lobes of the liver.

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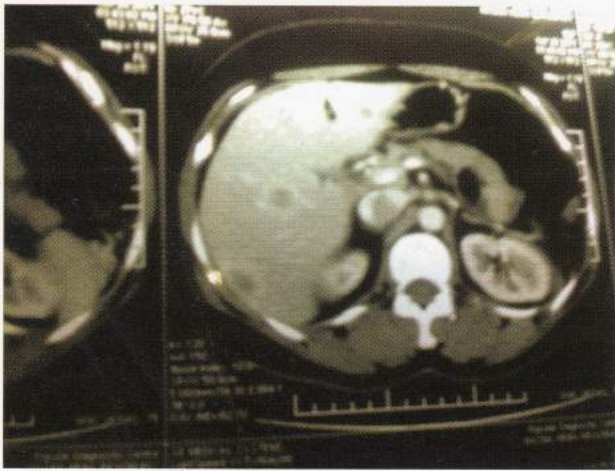


Fig-2: A CT scan showing a hypo dense mass without clear margins within the right lobe of the liver.

A Percutaneous tru-cut biopsy of the liver revealed areas of caseous necrosis and classic tubercles.

The patient was discharged. 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. After treatment, the patient was followed up for eight months without encountering any problem. Follow up USG and CT scan were done 2 it was normal done.

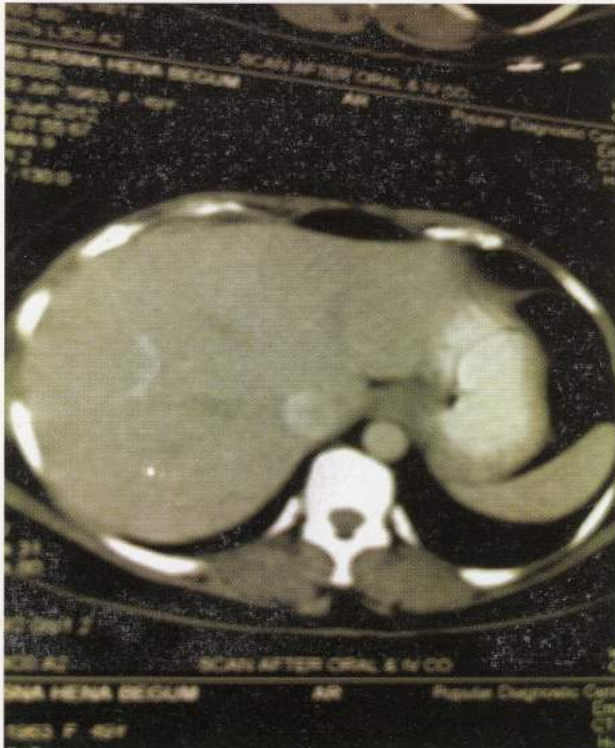


Fig-3: CT scan done after six months.

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. The third very rare form presents as a focal/local tuberculoma or abscess. ILT the rarest form of local hepatic tuberculosis.⁵ Kok et al⁶ reported an overall incidence of 0.3% for isolated hepatic tuberculosis. 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 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 tuberculosis exposure. The definitive diagnosis could be done with tests on histological and bacteriological tuberculosis in liver biopsy specimens. The importance of establishing the correct diagnosis cannot be overstated, since untreated evidence of tubercu-

sary for diagnosis.³

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In 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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