Unusual Presentation of Tubercular Liver Abscess in an Immune-Competent Adult

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Isolated hepatobiliary tuberculosis (TB) has been uncommonly described with or without biliary involvement and accounts for less than 1% of all tubercular infections. Isolated hepatic TB is even rare and poses a great diagnostic challenge. We report a case of isolated tubercular liver abscess with extension into the chest wall in an immune-competent adult, which was diagnosed and managed successfully with antitubercular treatment. (J CLIN EXP HEPATOL 2017;7:77–79)

Tuberculosis (TB) presents with a vast spectrum of clinical manifestations. Liver involvement occurs in approximately 10–15% of the pulmonary TB patients. In most of the patients with hepatic TB, primary focus of infection is either in the chest or abdomen. It occurs mainly in three forms, i.e., miliary, granulomatous, and isolated hepatobiliary form. Primary hepatic TB in an immune-competent individual is a rare form of extrapulmonary TB and only few cases have been reported in the literature. An isolated tubercular liver abscess is even rarer and often presents with nonspecific symptoms. The diagnosis is usually difficult as it is frequently confused with pyogenic or amoebic liver abscess. Here, we report a case of isolated tubercular abscess in an immune-competent adult presenting as a chest wall swelling with no evidence of infection in the lungs or gastrointestinal tract.

CASE REPORT

A 45-year-old male presented with painless, progressive swelling on the right side of the chest with history of anorexia and weight loss of 6 weeks duration. There was no history of cough, shortness of breath, fever, or swelling elsewhere in the body. The local examination revealed a solitary swelling over the right lateral chest wall opposite 10th–12th ribs of size 7 cm × 6 cm, which was firm and nontender with well-defined margins and minimal fluctuation (Figure 1). The laboratory investigations revealed hemoglobin of 12 g/dL, total leukocyte count of 6500/μL, normal liver and renal functions tests, negative HIV

serology, and a normal chest X-ray. The ESR was 80 mm in 1st hour and Mantoux test came out to be strongly positive (16 mm). Contrast-enhanced computed tomography (CT) chest and abdomen revealed 3 cm × 3.5 cm hypodense lesion in segment 7/8 of the liver, which was seen extending to involve the right lateral chest wall forming a 5.4 cm × 5 cm collection in an intermuscular plane with normal lungs, ribs, and other organs (Figure 2). Since the examination of the pus aspirated from the chest wall swelling was inconclusive, the patient underwent percutaneous biopsy from the chest wall that revealed granulomatous inflammation with negative acid-fast staining for tubercular bacilli (Figure 3). In view of granulomatous inflammation on histopathology and strongly positive Mantoux test, the patient was started on four drugs, antitubercular treatment (ATT). The patient showed a dramatic response to ATT with resolution of the chest wall swelling in 2 months and complete resolution of the liver abscess over the next 7 months of treatment (Figure 4).

The involvement of liver in TB can be of three different types. The miliary type is the most common form that occurs in 50–80% of the patients with generalized miliary TB.¹ The granulomatous type is the second most common and can present with prolonged fever and mild jaundice, with or without hepatomegaly. The isolated hepatobiliary form has been uncommonly described with or without biliary involvement and accounts for less than 1% of all tubercular infections.² Isolated tubercular liver abscess in an immune-competent adult is extremely rare with prevalence of just 0.34% in overall patients with hepatic involvement,³ and literature being limited only to case reports. The diagnosis is based on strong suspicion with either demonstration of acid-fast bacilli in aspiration fluid and biopsy samples or typical histopathological findings such as caseating necrotizing granulomas with epithelioid cells, Langhan's giant cells, and rim of lymphocytes.⁴ ATT with or without percutaneous aspiration is treatment of choice and has excellent prognosis.

Keywords: tuberculosis, liver abscess, antitubercular treatment

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Abbreviations: ATT: antitubercular treatment; CT: computed tomography
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Figure 1 Solitary swelling over the right lateral chest wall opposite 10th–12th ribs of size 7 cm × 6 cm.

Figure 2 Contrast-enhanced CT chest and abdomen showed a 3 cm × 3.5 cm hypodense lesion in segment 7/8 of the liver extending to involve the right lateral chest wall forming a 5.4 cm × 5 cm collection in an intermuscular plane.

Figure 3 Biopsy from the chest wall swelling showed well-formed granulomas comprising epithelioid histiocytes, mononuclear inflammatory cells, and plasma cells (hematoxylin and eosin stain).

Figure 4 Contrast-enhanced CT abdomen after completion of ATT showed complete resolution of the liver abscess.

CONFLICTS OF INTEREST

The authors have none to declare.

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