Isolated Hepatic Tuberculosis: Presenting as Cystic-like and Tumour-like Mass Lesions

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Citation

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Abstract

Hepatic tuberculosis is a rare manifestation of extra-pulmonary tuberculosis. Hepatic tuberculous lesions are especially mimicking tumour-like mass or cystic lesions in the liver so can be misdiagnosed with several diseases. Histopathological examination of the specimen is essential in the diagnosis for hepatic tuberculosis. In this report, two cases with hepatic tuberculosis have cystic solid mass and abscesses liver lesions are described.

INTRODUCTION

Hepatic tuberculosis is a rare manifestation of extrapulmonary tuberculosis. Tuberculous lesions of the liver might be detected during abdominal surgery unexpectably. Also, these lesions can, mistakenly, be diagnosed as tumourlike mass or cystic lesions in the liver on the screening investigations (1). Histopathological confirmation is essential for the exact diagnosis of hepatic tuberculosis. In this study, we aimed to discuss two cases of hepatic tuberculosis due to diagnostic dilemma and rarity of these lesions.

CASE I

A 30 year-old woman admitted to our hospital with a history of abdominal pain, anorexia, weight loss and fever for one month. On physical examination, except hepatomegaly, no other physical finding was detected. Liver function tests (ALT:64 U/Lt) and AST:76 U/Lt) and alkaline phosphatase (ALP: 310 U/Lt) were elevated. Chest x – ray was normal. Ultrasonography (US) of the abdomen revealed a lobulated cystic mass with air in the right lobe of the liver. Computerized tomography (CT) of the abdomen showed a ill defined cystic mass with air-fluid level in anterior segments of liver right lobe (Fig. 1). Liver abscess or infected hydatid disease was considered with these radiologic and clinical findings. Liver wedge biopsy was performed during laparotomy. Histopathological examination of the specimen demonstrated granulomas, epithelioid histiocytes and Langanhs' giant cells, and caseating granulomatous inflammation. Hepatic tuberculosis was diagnosed based on these pathologic findings unfortunately we did not performed culture of specimen for tuberculosis, because

tuberculosis had not taken in account to differential diagnosis. The patient treated with anti-tuberculous drugs for one year. The patient recovered clinically and abdominal US was normal after one year.

Figure 1

Figure 1: Ill defined cystic mass with air-fluid level in anterior segments of liver right lobe in abdominal CT.



CASE II

A 63 year-old man admitted to our hospital with abdominal pain and fever for one week. Execept the abdominal tenderness, physical examination was normal. Only, white blood cells (16400/mm³) and liver function tests (ALT: 48 U/I, AST: 52 U/I) were elevated in laboratory examination. Abdominal US revealed tumour-like mass lesion on the right lobe of the liver. Liver wedge biopsy was performed from the lesion on the liver during laparotomy. Histopathological examination of the specimen demonstrated granulomas, epithelioid histiocytes and Langanhs' giant cells, and caseating granulomatous inflammation. The patient treated with anti-tuberculous drugs for one year. The patient recovered clinically and abdominal US was normal after one year.

DISCUSSION

Tuberculosis is the most leading cause of death among infectious diseases (2). Among extra- pulmonary tuberculosis, hepatic tuberculosis is a rare form of tuberculosis. Reed et al have described three morphologic types of hepatic tuberculosis: 1) miliary tuberculosis of the liver associated with generalized miliary tuberculosis, 2) primary miliary tuberculosis of the liver without involvement of other organ, and 3) primary tuberculous granuloma or abscesses of the liver (3). Our two cases had only hepatic tuberculosis without pulmonary infection, we accept as type 3.

The symptoms and signs of hepatic involvement are nonspecific. As similar with our cases, hepatic tuberculosis usually presents with abdominal pain and hepatomegaly with or without jaundice. The liver function tests and alkaline phosphatase may be abnormal $(_4, _5)$.

MRI and CT findings of the liver tuberculosis reveal different stages of disease, varying from granulomatous tubercles with or without caseation necrosis to fibrosis and calcification in the healing stage (₆). US findings of hepatic tuberculosis usually show hypo echoic lesion (₇). CT findings demonstrate miliary, hypodense nodular lesions or cystic lesion (₈). In our cases, one of the patients had cystic mass with air-fluid level, and the other patient had tumourlike mass lesion.

Histopathological examination of the specimens from lesions is essential for the exact diagnosis. Percutaneous needle biopsy and laparoscopy can be used for the diagnosis and occasionally laparotomy may be required in some patients.

The infections and non-infectious diseases which can cause caseating or non-caseating hepatic granulomatous such as leprosy, sarcoidosis, Hodgkin's disease, brucellosis, infectious mononucleosis, inflammatory bowel disease, drug-induced liver damage and syphilis should be considered in the differential diagnosis of hepatic tuberculosis. Chronic active hepatitis may also mimic tuberculosis of the liver ($_4$).

The treatment of antituberculous treatment should be given at least for one year; however, many anti-tuberculous drugs are hepatotoxic and may contribute liver damage and jaundice. Therefore the response and toxicity should be assessed carefully during treatment period. Our patients were successfully treated for one year with anti-tuberculous drugs, and no side effect was observed during the treatment period.

In conclusion, tuberculosis should be considered in the differential diagnosis of the cystic and tumour-like mass lesions of liver especially in endemic regions.

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