Case report

Gall bladder tuberculosis: a rare entity

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Background: Though tuberculosis is common in other parts of the body, gall bladder tuberculosis is rare. We report a case of gall bladder tuberculosis managed in our institution.

Case Report: A 42 year old lady presented with right upper quadrant pain associated with fatty meal intolerance for one month. The pain was relieved by antispasmodics. Her liver function test was normal. Ultrasonogram of abdomen revealed, thick wall gall bladder with solitary stone in the gall bladder. Retrograde subtotal cholecystectomy was done. The histopathology report of the gall bladder revealed granulomatous cholecystitis suggestive of tuberculosis.

Key words: Gall bladder, Tuberculosis, Granulomatous cholecystitis.

Introduction

Tuberculosis was said to be the disease of poor, being more common in the developing countries. With the rise of HIV/AIDS worldwide, there has been increase in the incidence of tuberculosis worldwide. However, gall bladder tuberculosis is uncommon and rare. Here, we present a case of gall bladder tuberculosis managed in our institution, with review of literature.

Case Report

A 42 year old lady presented with right upper quadrant pain associated with fatty meal intolerance for one month. The pain was relieved by antispasmodics. There was no past history of acute cholecystitis or jaundice. The patient had undergone ESWL for left renal stone one year ago. On clinical examination, the patient's general condition was fair; she was neither pale nor icteric. Her abdomen was soft. There was no organomegaly. Her liver function test was normal. Ultrasonogram of abdomen revealed, thick wall gall bladder with solitary stone in the gall bladder. The intrahepatic bile ducts and common bile duct were normal **(Fig 1a, b).**

Fig. 1

Fig. 2

With the diagnosis of symptomatic cholelithiasis, patient underwent elective open cholecystectomy. The gall bladder was adhered to the omentum and colon. It had thick wall with difficult anatomy in the Calot's triangle. Therefore retrograde subtotal cholecystectomy was done. The postoperative recovery was uneventful. The histopathology report of the gall bladder revealed granulomatous cholecystitis suggestive of tuberculosis (Fig 2a, b).

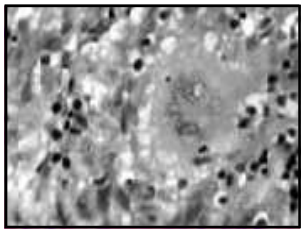

Fig. 3

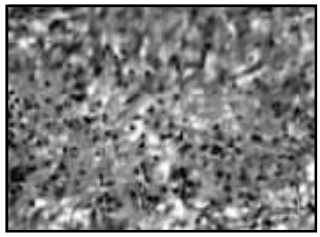

Fig. 4

Discussion

Gastrointestinal tuberculosis is commonly seen in the form of tuberculous peritonitis or involvement of the abdominal lymph nodes. Gall bladder tuberculosis is uncommon, with only 50 cases reported in literature till 2003[1]. The intact gall bladder mucosa is resistant to *Mycobacterium tuberculosis* due to the presence of concentrated bile acids in the gall bladder lumen. The concentrated bile is said to have inhibitory function[1,2,3]. Cholelithiasis and cystic duct obstruction are considered the most important factors in the development of gallbladder tuberculosis[3,4,5]. The infection usually spreads via the hematogenous route, or from adjacent caseating lymph nodes or peritoneal

tubercles. Cholelithiasis is associated in more than 70% of cases[1,6].

Most of the literatures about gall bladder tuberculosis are case reports. The recent article published in the Indian journal of Gastroenterology, the authors have reported their experience of management of five cases of gall bladder tuberculosis[1]. Gallbladder tuberculosis occurs most commonly in women over 30 years of age[3,4]. Our patient was a 42 year old lady with cholelithiasis. Clinical presentation is variable and includes features of chronic cholecystitis, carcinoma gall bladder and nonspecific systemic symptoms[1,2]. Essop *et al* reported that liver enzymes were elevated in more than 60% of their patients with tuberculous involvement of liver[7]. However, our patient had normal liver function test.

Ultrasonographic and CT findings of gall bladder tuberculosis, such as an enlarged gall bladder, thickened gall bladder wall, soft-tissue masses, and intrahepatic bilomas are nonspecific. Another important function of radiographic examination is to show tuberculosis in other abdominal organs including the liver, spleen, lymph nodes and peritoneum, which is very helpful in diagnosing gallbladder tuberculosis[5,6,8]. The confirm diagnosis is usually made on histological examination as sometimes it may be difficult to differentiate from gall bladder carcinoma[8].

In our case, we had not thought of tuberculosis of gall bladder till we had the histopathological report. She had recurrent upper abdominal pain associated with fatty meals. She had normal liver function tests. The ultrasonogram had revealed thickened gall bladder wall with cholelithiasis. The radiologist had the impression of chronic calculous cholecystitis. Therefore she was planned for open cholecystectomy. Intraoperatively, it was a difficult cholecystectomy with adhesions, thick gall bladder wall and distorted anatomy at the Calot's triangle; and subtotal cholecystectomy was performed. Our intraoperative impression was either chronic cholecystitis or carcinoma gall bladder. But the histopathology confirmed tuberculosis, probably the first case in our institution. The erythrocyte sedimentation rate was 35 mm/h, Mantoux test was positive, and chest X-ray was normal that were done postoperatively. The patient has been started on antitubercular treatment.

Conclusion

Though rare, gall bladder tuberculosis should be considered in the differential diagnosis of chronic cholecystitis and gall bladder carcinoma.

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