

Primitive Gallbladder Tuberculosis

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Abstract

Gallbladder tuberculosis is an exceedingly rare disease. We present a new case of a patient who underwent surgery with the preoperative diagnosis of cholelithiasis. Diagnosis of gallbladder tuberculosis was obtained with the histologic examination of the frozen section. A correct preoperative diagnosis of Gallbladder tuberculosis is difficult, and it may be confused with different gallbladder diseases.

Keywords: Tuberculosis; Gallbladder; Cholelithiasis

Case Report

A 74-year-old woman presented with a 15-day history of right upper abdominal pain. No fever, jaundice, or weight loss were reported. Physical examination was entirely normal apart from slight tenderness in the right upper quadrant. There was no evidence of peripheral lymphadenopathy or hepatosplenomegaly. Liver enzymes, hematological parameters, and chest X-ray were normal. Abdominal ultrasound revealed a gallbladder with many gallstones and dilated bile ducts to 10 mm without an identified obstacle (Figure 1).

The patient was operated by laparoscopy for cholecystectomy. Exploration per operatively showed a pseudotumoral aspect of the gallbladder with diffuse thickened wall. So that, it was decided to convert into right subcostal laparotomy. Cholecystectomy was performed and peroperative cholangiography was normal. As the possibility of malignancy was suspected, the frozen section was sent, which demonstrated features of acute cholecystitis; no malignant cells were seen. The postoperative course was uncomplicated. Histopathological examination found a caséofolliculaire tuberculosis of the gallbladder in calculous cholecystitis (Figure 2 and Figure 3).

A complete course of anti-tubercular treatment was administered for 6 months (4 drugs during 2 months: Isoniazid: 4 mg/kg per day, rifampicin: 10 mg/kg per day, pyrazinamide: 25 mg/kg per day and

ethambutol: 20 mg/kg per day; and 2 drugs: INH, rifampicin for the next 4 months). The patient remained asymptomatic after 3 years of follow-up.

Discussion

Described since 1870 by Gaucher, the gallbladder tuberculosis (GT)

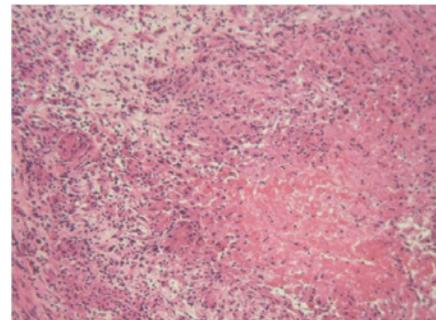


Figure 2: Tuberculoid granuloma with caseous necrosis in the center and two multinucleated giant cells (X200).

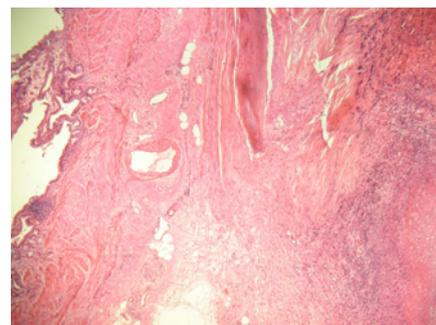


Figure 3: To the right: inflammatory reaction granulomatous and necrotizing at the level of the gallbladder wall; to the left the biliary epithelium (X50).



Figure 1: Ultrasound: cholelithiasis.

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is extremely rare. It represents 1% of abdominal tuberculosis [3,4]. Less than 120 cases have been reported in the literature [1-4]. Generally speaking, the gallbladder mucosa is highly resistant to tubercular infection, possibly due to the inhibitory effect of concentrated bile acids in the gallbladder lumen and to high alkalinity of bile [1,5,6]. Cholelithiasis and cystic duct obstruction are considered the most important factors in the development of gallbladder tuberculosis [1,7,8]. As almost, all reported cases have co-existent gallstones. Literature review revealed only three case reports of tuberculous cholecystitis without associated gall stones or common bile duct obstruction [9]. The infection usually spreads via the hematogenous route or from adjacent caseating lymph nodes or peritoneal tubercles [1,5,10]. There is no exact statistics in the literature about the association between GT and hepatic tuberculosis.

GT occurs most commonly in women over 30 years of age [1,7], quite similarly, our patient was a 74-year-old lady with cholelithiasis. Pre-operative diagnosis of GT is difficult, more so in calculous cholecystitis, as most of the symptoms are attributed to gallstones and the diagnosis is usually made on histological examination of the gall bladder specimen after cholecystectomy [10,11]. Effectively, there is no pathognomonic presentation of GT which may present with features of cholecystitis, a gallbladder mass, with obstructive jaundice due to associated enlarged pericholedochal lymph nodes [12-14] and with non-specific systemic symptoms such as abdominal pain, weight loss, low-grade fever, anorexia, vomiting and abdominal mass [5,6].

Ultrasound examination of GT is non-specific [15]. Xiu-Fang Xu and al. [4] had described the computed tomography (CT) findings of gallbladder tuberculosis and correlated them with pathologic findings. So that GT has various CT manifestations, and the enhanced CT findings are well matched with pathological features. Three different CT findings were reported: micronodular lesion of the gallbladder wall, a thickened wall and a gallbladder mass. The micronodular type of GT may mimic gallbladder polyp or early carcinoma on CT. But early gallbladder carcinoma with a polypoid mass is typically larger than 1cm in the short diameter [16], and gallbladder polyp is usually a narrow-based lesion, which is different from the CT findings of GT. While, for the two remaining types, the diagnosis of GT should be suggested on an irregularly thickened gallbladder wall or a gallbladder wall mass with multiple-focus necrosis or calcifications accompanied by the typical CT findings of abdominal tuberculosis [4].

The treatment of gallbladder tuberculosis is based on antitubercular chemotherapy based on an attack treatment involving 2 months associating isoniazid (5mg/kg), rifampicin (10mg/kg) and pyrazinamide (25-30mg/kg), followed by maintenance therapy for 4 months of isoniazid and rifampicin [17], and cholecystectomy when there are symptomatic gallstones. However, the problem of the diagnosis of GT is obvious as all the signs, symptoms and investigations are non-specific. Ironically, postoperative histopathological confirmation becomes the greatest tragedy of diagnosis because a condition that is curable medically has to follow surgery unavoidably specially in the case without associated gallstones [9,18].

In conclusion we emphasize that GT has no pathognomonic diagnostic imaging features and the diagnosis is usually made on histological examination of the gallbladder specimen after cholecystectomy. The question is how to confirm the diagnosis in the case of acalculous gallbladder tuberculosis without histological proof?

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