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Case Report

Tuberculosis of the Gallbladder: An uncommon Case Report

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Abstract:

Isolated gall bladder tuberculosis (GBTB) is exceedingly rare even in an endemic region and is usually found as a GB mass in association with cholelithiasis. Confirmed preoperative diagnosis is very difficult, and most cases are diagnosed after cholecystectomy. We present a case of a 45-years-old woman who came with symptoms of chronic cholecystitis. Computed tomography scan revealed intraluminal gallbladder mass and cholelithiasis. The patient underwent open cholecystectomy and GBTB was diagnosed after histopathological examination. Histopathological examination should be done after all cholecystectomy operations.

Key words: Gallbladder, Tuberculosis, Carcinoma.

Introduction:

Intraabdominal tuberculosis commonly involves the small intestine, solid organs, lymph nodes and peritoneum in varying combinations[1]. The first case of isolated GBTB was reported by Gaucher in 1870[2]. Gallbladder is mostly infected with tuberculosis from hematogenousor lymphatic route or from other adjacent intra-abdominal source[3]. The important contributing factors attributed in the development of gallbladder tuberculosis are cholelithiasis and cystic duct obstruction[3]. Females over 30 years of age are commonly involved by GBTB[3]. As there is no pathognomonic presentation of GBTB features may be varied, like that of chronic cholecystitis[4], abdominal mass[5] or obstructive jaundice withother nonspecific symptoms. Most frequent clinical signs and symptoms are abdominal pain, weight loss, loss of appetite, anemia, anorexia and fever[6]. Ultrasound may reveal gallstones, wall thickening or a mass. In the presence of a mass an abdominal computed tomography is necessary to rule out malignancy and its spread. Preoperative tissue sampling is not advocated as there is high chance of needle tract seedlings[7]. Here, we report a case of a female patient who underwent radical surgery with a preoperative diagnosis of carcinoma of gallbladder.

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Case Report:

A 45-year-old woman presented with a history of recurrent right upper abdominal pain for the last 1 year. She gave history of occasional fever and appetite loss mostly during the pain. There was no history of jaundice or significant weight loss.

Apart from slight tenderness in the right hypochondriac region, general physical examination of the patient revealed only anemia. No abdominal mass was palpable neither any lymphadenopathy.

Liver function tests were within normal limit, hemoglobin was 9 mg/dl, chest X-ray showed mild cardiomegaly. An abdominal ultrasound revealed distended thick-walled GB containing multiple calculi and echogenic soft tissue mass. Computed tomography scan revealed intraluminal gallbladder mass and cholelithiasis with solitary pre-pancreatic lymphadenopathy. Upper GI endoscopy was normal. CA-19-9 was 15 U/ml.

Elective open cholecystectomy was performed. Peroperative findings were distended, thickened GB with short cystic duct. There were dense adhesions between the GB body, duodenum and omentum. The liver, CBD and the bowel were normal. There was no ascites or peritoneal or omental deposit. The postoperative period was uneventful and the patient was discharged on the 7th postoperative day.

Histopathological examination of the GB showed marked perimuscular inflammatory fibrous thickening. The whole thickness of the wall showed infiltration of chronic inflammatory cells with collection of epithelioid cells, features consistent with granulomatous inflammation, tuberculosis. The mucosa was ulcerated with areas of extensive necrosis. No malignancy was seen.

The patient has completed first line anti tuberculous chemotherapy for 6 months [Four drugs for two months: rifampicin (10 mg/kg), isoniazid (5 mg/kg), pyrazinamide (25 mg/kg), ethambutol (20 mg/kg) and then 2 drugs- isoniazid and rifampicin for next four months]. Regular six months follow-ups were unremarkable.

Discussion:

Abdominal tuberculosis occurs in about 10% of all tuberculosis[8] and among these isolated gallbladder tuberculosis is one of the rarest forms[9]. Despite most cases are reported to be isolated GBTB, there may be multiorgan involvement if postmortem was carried out[10]. High alkaline nature of the bile has an inhibitory effect on growth of mycobacterium making GB mucosa resistant to tubercular infection[3]. Usual spread of infection is via the hematogenous or lymphatic spread from the primary site, by direct involvement and/or secondary involvement from a pre-existing infection in the liver or from the nearby caseating lymph nodes or from the peritoneal tubercles[11]. Gallstones and cystic duct obstruction are deemed to be important contributing factors in the development of GBTB[3]. In cystic duct obstruction all bile acids are reabsorbed from the gall bladder and there is lowered resistance against mycobacterial infection.

Clinical presentation of gallbladder tuberculosis may be that of carcinoma of gallbladder[12], chronic cholecystitis[4], obstructive jaundice[13], empyema of gallbladder[14] and chronic watery discharge from port site following laparoscopic cholecystectomy[15] where histopathology was not done.

Ultrasonography is the first imaging modality to asses abdominal pain and obstructive jaundice which may reveal gallstones, mural thickening and lymphadenopathy. CT findings of GBTB show micro nodularor polypoid lesion on the gallbladder wall, thickened-wall (most common form) and a mass[16]. Imaging modalities are useful to define the gallbladder mass, the level and extent of bile duct obstruction but almost never suggest a diagnosis of TB[1]. Confirmation of the diagnosis of tuberculosis is based on the histopathological examination of the resected specimen[9] and is a histological surprise for the surgeons who perform surgery for calculous cholecystitis or gall bladder carcinoma[17]. As it is difficult to diagnose tuberculous cholecystitis, all resected cholecystectomy specimens should be sent for histopathological examination[18].

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