IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 20, Issue 10 Ser.4 (October. 2021), PP 58-61
www.iosrjournals.org

Tubercular Gall Bladder, a Rare Entity- A Case Report

[1.] Dr Rohit Kapoor M.S. *(Assistant Professor General Surgery MMIMSR Mullana India)*
[2.] Dr Shubh Kirti M.D.S *(Associate Professor Periodontics SDCRI Sri Ganganagar, India)*
[3.] Dr Sarbjeet Singh M.S.,*F.M.A.S (Professor GGS Medical College Faridkot, India)*
Correspondence: Dr Rohit Kapoor

Abstract- *Tuberculosis (TB) of the gallbladder is an uncommon disease that was first described by Gaucher in 1870.[1] It is difficult to differentiate from other gallbladder diseases, such as gallbladder carcinoma and Xanthogranulomatous Cholecystitis. The absence of specific clinical signs and overlapping of symptoms with cholelithiasis make the perioperative diagnosis of TB difficult.[3] A correct preoperative diagnosis of Gall Bladder Tuberculosis (GBTB)is difficult. The final diagnosis is usually made postoperatively according to histopathological report of surgical biopsy.*
Here, we report a case of a patient who underwent surgery with the post-operative diagnosis of gallbladder carcinoma. We reviewed the literature and present the various differential diagnosis of conditions that share similar signs or symptoms.

Date of Submission: 29-09-2021 Date of Acceptance: 12-10-2021

I. Introduction

Gallbladder tuberculosis (GBTB) is an infrequent disease presenting as cholecystitis.The preoperative diagnosis ofgall bladder tuberculosis is strenuous, and reviewing the literature highlights the fact that most cases are diagnosed post-cholecystectomy or at postmortem. Here we report case of patient who underwent surgery with postoperative diagnosis of gall bladder tuberculosis.A well-informed and written consent was taken from the patient.

II. Case Report

A 45-year-old women presented with history of pain right hypochondrium since 1month. Pain was insidious in onset, mild in intensity, non-progressive in nature, non-radiating, not associated with aggravating or relieving factor. There was no past or family history of tuberculosis.

On examination, the patient was found to be averagely built and well nourished. She had no cyanosis, jaundice or edema or generalized lymphadenopathy. The examination of abdomen revealed tenderness on deep palpation in right hypochondrium. The rest of systemic examination did not reveal any abnormality. Per rectal examination was normal. Provisional diagnosis of cholecystitis was made and patient was investigated further.

The routine investigations were all within normal limit. Liver function test showed bilirubin to be 0.5gm%. SGOT, SGPT and ALP within normal limits. The x-ray chest showed no increased markings or radio-opaque shadow. Plain x-ray of abdomen did not show any radio-opaque shadow in gall bladder or common bile duct.

CECT abdomen revealed 28x28mm area of soft tissue thickening in region of gall bladder fundus with irregular margins and indistinct planes with adjacent parenchyma? Carcinoma GB? Chronic organized GB sludge.

The patient underwent elective cholecystectomy. Intra-operatively gall bladder densely adherent to transverse colon and pyloric region of stomach [Image 1]. Gall bladder was fibrosed with thick wall. Common bile duct was normal. There were no signs of peritoneal tuberculosis. Cholecystectomy was performed and the gall bladder was removed from body. The patient had a very smooth and uneventful post operative period. The gall bladder was sent for histopathological examination. Cut section showed ulcerated mucosa, wall thickness ranges in size from 0.8to 1cm. No stone recovered. Histological examination revealed granulomatosis cholecystitis with giant cell reaction and caseating necrosis.

The patient was discharged on anti-tubercular treatment. Since then she is attending follow up clinics regularly and is symptom free.

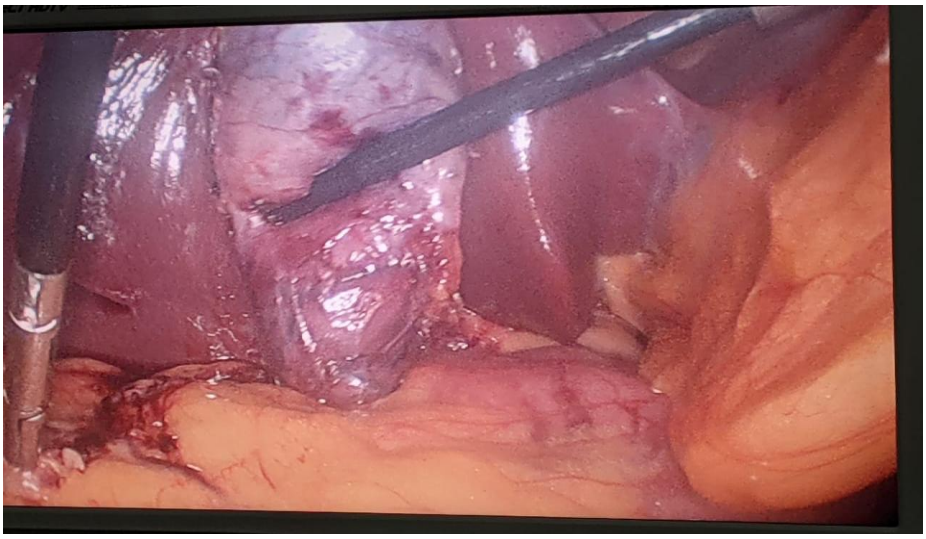


Image 1- intra-operative image of gall bladder

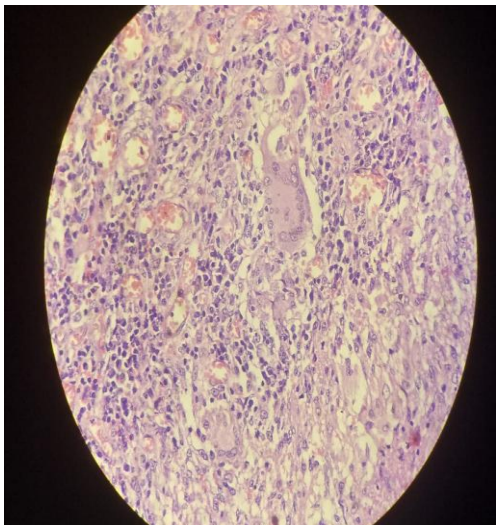
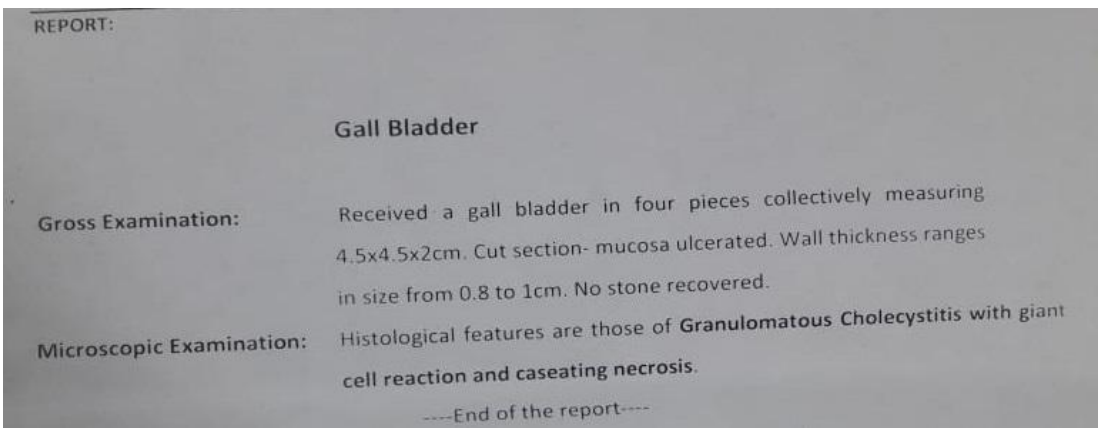


Image2- histopathological examination showing granuloma formation



REPORT:

Gall Bladder

Gross Examination: Received a gall bladder in four pieces collectively measuring 4.5x4.5x2cm. Cut section- mucosa ulcerated. Wall thickness ranges in size from 0.8 to 1cm. No stone recovered.

Microscopic Examination: Histological features are those of **Granulomatous Cholecystitis with giant cell reaction and caseating necrosis**.

----End of the report----

Image 3- histopathological report

III. Discussion

Gall bladder tuberculosis is rare disease entity found in 1% of abdominal TB cases. Gall bladder is mostly infected through hematogenous route or directly via intra-abdominal source. The first case of gall bladder tuberculosis was reported in 1870 by Gaucher.

The gallbladder is infected by mycobacterium tuberculosis as a sequalae to miliary tuberculosis, abdominal tuberculosis or via enterohepatic route. Four distinct clinical varieties of gallbladder tuberculosis have been recognized [2]: (1) As a sequela of miliary tuberculosis in children and in adults, (2) As a constituent of disseminated abdominal tuberculosis, (3) Isolated gallbladder tuberculosis without significant tubercular focus anywhere in the body and (4) Involvement of gallbladder in immunocompromised states due to uremia [2], cancer or AIDS [3].

GBTB has different presentations as a component of miliary or disseminated abdominal TB in immunocompromised states or as isolated involvement[4], as seen in the present case. The symptoms may be coinciding with symptoms of acute cholecystitis or frank malignancy[5–7]. Hence, GBTB should be considered as a differential diagnosis for gallbladder mass, especially in an endemic area population or in an immunocompromised patient.

According to Sir BOA Moynihan, a "gall stone is a tomb-stone erected to the memory of the organism within it".So, mycobacteria can also lead to cholelithiasis and/or cholecystitis, particularly when tuberculosis has disseminated to the peritoneum and lymph nodes in the surroundings[5]

There are no classic presentations of gall bladder tuberculosis, it can vary from histological examination surprise, to gall bladder perforation. The differential diagnosis of GBTB includes acute and chronic cholecystitis, polypoid lesions and gallbladder carcinoma. The presence of a mass inside the gallbladder associated with cholelithiasis is indistinguishable from carcinoma of the gallbladder. Moreover, both GBTB and carcinoma can lead to regional lymphadenopathy. The presence of metastasis or infiltrates in liver suggests the presence of a gallbladder carcinoma. On the other hand, cavitatory lesions of lung or mesenteric thickening is commonly found in patients with tubercular infection[8]. The diagnosis of tuberculosis of gall bladder is difficult so all post cholecystectomy specimens should be sent for histopathological examination for evidence of tuberculosis[9]. Ironically, postoperative histopathological confirmation becomes the greatest tribulation of diagnosis because a condition that is curable medically has to follow surgery[10]

Common presenting feature of gallbladder TB are abdominal pain, fever, anorexia and weight loss [7]. Gallbladder perforation with intrahepatic biloma has also been reported. [11]. Xu et al [12] also showed that CT imaging for gallbladder TB may mimic a polyp, cholecystitis or carcinoma. The presence of thickening of gall bladder wall and heterogenous enhancement may suggest caseating or liquefactive necrosis, which was found in our patient. However, the differential diagnosis of gallbladder TB was not made in this patient with no significant past medical history and lack of immunosuppression. The possible diagnosis of a gallbladder TB based on the CT finding can only be considered retrospectively after histopathological analysis reveals AFB. Preoperative Ultrasound-guided fine needle aspiration cytology of the gallbladder, although not performed on daily basis but may suggest the presence of gallbladder TB: Multiple granulomas with inflammatory and multinucleated giant cells and a positive Ziehl-Neelsen stain are the typical findings of gall bladder tuberculosis as is seen in our patient Image [2,3]. Histology being confirmatory for gallbladder TB, is not specific or validated due to insufficient data [7,8,13,14] . The management of gallbladder TB is similar to pulmonary and/or intra-abdominal TB. The gold standard therapy is use of quadruple drugs (inclusive of rifampicin, isoniazid, pyrazinamide and ethambutol[15]. In the case of complications like biliary obstruction, endoscopic or surgical management is still essential to relieve the obstruction in addition to anti-tuberculous treatment [16]

IV. Conclusion

Gall bladder tuberculosis is a rare entity. As tuberculous cholecystitis is difficult to diagnose, and most cases are diagnosed post cholecystectomy. GBTB, a rare entity, can mimic other GB conditions such as malignancy and xanthogranulomatous cholecystitis preoperatively. Radiological investigations combined with clinical manifestations and histopathological examination of the resected specimen can lead to the diagnosis of GBTB. It should be one of the key differential diagnoses by the surgeons, especially in endemic areas. Eventually, all the resected post cholecystectomy specimens should be examined histopathologicaly to diagnose incidentally detected GBTB as found in our case.

References:

[1]. Bergdahl L, Boquist L. Tuberculosis of the gallbladder. British Journal of Surgery 1972;59(4):289-92.
[2]. Piper C, Gamstätter G, Bettendorf U, von Egidy H Gallbladder tuberculosis. Review and case report of a patient with advanced renal failure. LeberMagenDarm. 1987 Dec;17(6):381-2, 385-6. German. PMID: 3323748.
[3]. Yu R, Liu Y. Gallbladder tuberculosis: case report. Chin Med J (Engl) 2002;115:1259–1261.

[4]. Kapoor S, Sewkani A, Naik S, Sharma S, Jain A, VarshneyS.Myriad presentations of gall bladder tuberculosis. Indian J Gastroenterol. 2006;25(2):103–4
[5]. Krishnamurthy G, Singh H, Rajendran J, et al. Gallbladder tuberculosis camouflaging as gallbladder cancer—Case series and review focussing on treatment. TherAdv Infect Dis.2016;3(6):152–7.
[6]. 3. Liu Y, Wang K, Liu H. Gallbladder tuberculosis mimicking gallbladder carcinoma: A case report and literature review. Case Rep Hepatol. 2016;2016:3629708.
[7]. Saluja SS, Ray S, Pal S, et al. Hepatobiliary and pancreatic tuberculosis: A two decade experience. BMC Surg. 2007;7:10.
[8]. Ramia JM, Muffak K, Fernandez A, Villar J, Garrote D, Ferron JA. Gallbladder tuberculosis: False-positive PET diagnosis of gallbladder cancer. World J Gastroenterol. 2006; 12(40): 6559-6560.
[9]. Mukherjee S, Ghosh AK and Bhattacharya U. Tuberculosis of gall bladder - problem of diagnosis. Ind. J. Tub. 2001;48,151
[10]. Tanwani R, Sharma D, Chandrkar SK. Tuberculosis of gall bladder without associatedgall stones or cystic duct obstruction. Indian J Surgery. 2005; 67:45-46
[11]. Hahn ST, Park SH, Shin WS, Kim CY, Shinn KS. Gallbladder tuberculosis with perforation and intrahepatic biloma. J Clin Gastroenterol. 1995;20:84–86.
[12]. Xu XF, Yu RS, Qiu LL, Shen J, Dong F, Chen Y. Gallbladder tuberculosis: CT findings with histopathologic correlation. Korean J Radiol. 2011;12:196–202.
[13]. Jain R, Sawhney S, Bhargava D, Berry M. Gallbladder tuberculosis: sonographic appearance. J Clin Ultrasound. 1995;23:327–329.
[14]. 3. Abu-Zidan FM, Zayat I. Gallbladder tuberculosis (case report and review of the literature) Hepatogastroenterology. 1999;46:2804–2806.
[15]. Getahun H, Matteelli A, Abubakar I, etal. Management of latent Mycobacterium tuberculosis infection: WHO guidelines for low tuberculosis burden countries. Eur Respir J. 2015;46:1563–1576.
[16]. 21. Iwai T, Kida M, Kida Y, Shikama N, Shibuya A, Saigenji K. Biliary tuberculosis causing cicatricial stenosis after oral anti-tuberculosis therapy. World J Gastroenterol. 2006;12:4914–4917.

Dr Rohit Kapoor, et. al. "Tubercular Gall Bladder, a Rare Entity- A Case Report." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, 20(10), 2021, pp. 58-61.