

# Case Report: Tuberculosis of Gall Bladder

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**Tuberculosis of gallbladder is a rare occurrence in the world of medical literature<sup>7</sup>. First case was reported in 1870. Here is presented a case of perforated gallbladder due to tuberculosis because of its rarity.**

**Key words: Tuberculosis, gallbladder**

Tuberculosis is not an uncommon disease in our part of the world<sup>11</sup> It usually involves lymph nodes, lungs, urogenital tract, bones and intestine<sup>9</sup>. The incidence of gallbladder tuberculosis is very low. First case being reported in world literature dates back to 1870 by Gaucher. Bergadhl and Bouquist reported 3 cases in 1972 and reviewed 41 cases of tuberculosis of gallbladder. Since then stray case reports have appeared on international stage<sup>3</sup>. Below here is presented a case of tuberculosis of gallbladder of a 50-year-old male presenting with a perforated gall bladder that underwent laparotomy

## Case Report:

S.A a 50-year-old male reported to surgical emergency of S.G.R.Hospital in September of 1998, with the complaints of pain throughout the abdomen for the last one day. The pain started in the epigastric region and then spread to whole of the abdomen. He had a known history of duodenal ulcer for the last one-year and cholelithiasis for the last six months. He was also a known case of ischemic heart disease. There was no history of haemetemesis, malena, jaundice but fever with rigors was there. There was no past or family history of tuberculosis. The patient was hospitalized twice before, once for ischemic heart disease and second time for acute cholecystitis. But no evidence of systemic or other form of tuberculosis in history, examination and investigations was found.

The examination of patient revealed an average built person with slight malnourishment. His general features showed anemia but no cyanosis jaundice or edema. There was no generalized lymphadenopathy. duodenal ulcer. Laparotomy was done under general anesthesia. On opening the abdomen biliary peritonitis was found and omentum was found stuck to the gall bladder fossa. On clearing the adhesions, perforation of gallbladder was found with multiple gallstones. There were numerous adhesions of gallbladder with common bile duct. Rest of the intestine duodenum and stomach were normal. There was no mesenteric lymphadenopathy but portal lymph node was enlarged. The wall of gallbladder was thick and fibrous but showed no tubercles or evidence of caseation. Under the circumstances partial cholecystectomy was done and a drain was placed in the hepatorenal pouch. A per operative suspicion of carcinoma gallbladder was made.

The patient had an uneventful recovery and on the third post-operative day the histopathologist report of caseation necrosis with granulomatous inflammation and giant cells confirmative of tuberculosis was given. The

report was confirmed with other pathologists as well giving the same diagnosis. The patient was put on anti-tuberculous therapy. Nearly a year has passed since this operation and the patient has been followed up regularly, he is asymptomatic till the writing of this report.

## Discussion

Although tuberculosis is endemic in our part of the world, the incidence of gall-bladder tuberculosis is very low, though the frequency of cholecystitis has increased during the past decades<sup>12</sup> Hepatobiliary tuberculosis is uncommon, seen in approximately 1% of cases of abdominal tuberculosis. The gall bladder is involved in about 1 of 1000 cases in abdominal tuberculosis.

Simmonds [1908] differentiated between an acute form of tuberculous cholecystitis, which is caused by an infection through the biliary passages, and a chronic type, which is caused by secondary infection of a gall-bladder that has been damaged by non-specific inflammation. Weitz [1955] has proposed the following classification of tuberculosis of the gall bladder: -

Miliary tuberculosis in children with ulcerating tubercles in the gall bladder. Gall-bladder tuberculosis is associated with severe general tuberculosis. Tuberculosis limited to the gall bladder, often discovered accidentally at microscopic examination of extirpated gall bladders. Gall bladder involvement in association with tuberculosis in other peritoneal organs<sup>14</sup>.

Various reasons given for the low incidence of gall-bladder tuberculosis include failure to recognize the condition or a special resistance of the gall bladder to the tubercle bacillus<sup>6</sup>. It has been suggested that anti-tuberculous activity is present in salivary and pancreatic secretions [Hirsch, 1955]<sup>8</sup> Autio and others [1963] have reported that pure bile contains bile acids in concentration high enough to inhibit the growth of the tubercle bacillus, which might contribute to the resistance<sup>2</sup>. They also suggested that cystic duct obstruction lead to the disappearance of bile acids from the gall bladder and to a lowered resistance against the tuberculous infection.<sup>4</sup>

It usually presents with pain after meals, nausea, diarrhea, and fever are common symptoms, and that jaundice is infrequent in cases of tuberculosis of the gall bladder<sup>13</sup> On ultrasound the presence of a mass filling the gall bladder, associated with cholelithiasis, is indistinguishable from carcinoma of the gall bladder. Both tuberculosis and carcinoma can give rise to lymphadenopathy [cystic, periportal, retroperitoneal] and

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ascites. Contiguous infiltration of the liver by the gall-bladder lesion, and hepatic metastases are pointers toward a carcinoma, whereas associated mesenteric thickening and adenopathy, and pulmonary infiltrate lesions would favor tuberculosis<sup>11</sup>.

Clinical studies denote that stones may be of pathogenic significance for the development of tuberculosis in the gall bladder<sup>1</sup>. Most of the cases of tuberculosis of gall bladder reported in the literature had stones in the gall bladder or had obstruction of the cystic duct or common bile duct. We believe that the presence of stones with associated non-specific inflammatory alterations may also play a prominent role in the development of tuberculosis of the gall bladder. Fibrous thickening of the gall-bladder wall denotes the existence of chronic inflammation, which in turn diminished the resistance of the gall-bladder to the tuberculous infection.<sup>5</sup> Further clinical studies have revealed that granulomatous lesions are known to disrupt when sutured, especially in the presence of distal obstruction. That's why biliary leaks in such cases have been managed with nasobiliary drainage, stents, or sphincterotomy<sup>10</sup>. Cholecystectomy and anti-tuberculous chemotherapy remain the mainstay of treatment of gall-bladder tuberculosis.

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