CASE REPORT

Tuberculosis of gallbladder neck: a cause of cholecystitis with cholelithiasis

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SUMMARY

Tuberculosis of gallbladder neck is not a very common problem reported in the literature. Here, we report a case of gallbladder neck tuberculosis complicated with chronic cholecystitis with cholelithiasis in a 55-year-old woman. Diagnosis was made postoperatively on surgical biopsy.

BACKGROUND

Cholelithiasis and associated cholecystitis of the gallbladder (GB) is a very common diagnosis made in patients presenting with right upper quadrant abdominal pain. A gallstone occurs as a secondary complication of GB infection. The infecting organisms are of many types, and mycobacterium as the causative organism is rarely found and suspected and much less frequently proven. We hereby report a case in which we have proven the same.

CASE PRESENTATION

A 55-year-old woman presented to the department of gastro surgery with chief complaints of recurrent right hypochondrial pain, loss of appetite associated with dyspepsia from the last 1 year and off and on fever from the last 6 months.

The general examination revealed nothing significant and per abdominal and per rectal examinations were also insignificant except for a perianal tag. Routine blood investigations including LFT were all WNL. Ultrasonography of the abdomen revealed cholelithiasis with multiple mesenteric, iliac, paracaval and para-aortic lymphadenopathy.

The patient was diagnosed as a case of cholecystitis and underwent laparoscopic cholecystectomy which revealed a thin-walled GB with multiple calculi. All adjacent structures were healthy and anatomically normal. The GB was resected and sent for histopathological examination (HPE). When gross was sectioned, the pathologist noticed an incidental lymph node at the neck of the GB. On microscopic examination, the GB section showed atrophied mucosa and congested blood vessels in the lamina propria with mild pan annular inflammation in all the layers (figure 1). A section from the lymph node shows lymph node parenchyma replaced by a large number of epithelioid granuloma comprising of epithelioid cells, Langhans type of giant cells and lymphocytes. The Zeil Nelson-stained section was positive for acid-fast bacilli (not shown in figure 1). A diagnosis of tubercular lymphadenitis was made.

After surgery, the patient got relief from all the symptoms except for a loss of appetite and low-grade fever. At this stage, the patient was referred

to our department for further evaluation, and on the basis of the clinical picture and HPE report, the patient was started on antitubercular treatment (DOTS CAT 1) regimen. Gradually, the patient responded and is now doing well and relieved of all symptoms including fever and loss of appetite.

OUTCOME AND FOLLOW-UP

The patient is now relieved of all symptoms and is in regular follow-up in our outpatient department.

DISCUSSION

Gastrointestinal tuberculosis is commonly seen in the form of tuberculous peritonitis or involvement of the abdominal lymph nodes. GB tuberculosis is very rare worldwide, with only 50 cases reported in the literature till 2003.¹ According to Sir BOA Moynihan, a 'gallstone is a tomb stone erected to the memory of the organism within it'. Infecting organisms reach the GB via the bloodstream or lymphatics from a focus nearby. Streptococci, coli form and typhoid bacilli and actinomyces are the frequently found organisms in gallstones having an infective aetiology.² *Mycobacterium* can also be a cause of cholelithiasis and/or cholecystitis, particularly when tuberculosis is disseminated to the peritoneum and lymph nodes in the vicinity. The rarity of tuberculous involvement of the GB could be possibly due to hypovascularity of the GB sac and high alkalinity of concentrated bile inside it.^{1 3 4} Isolated tuberculosis of the GB has also been reported but without any direct evidence of its primary.

Figure 1 Section from the lymph node showing lymph node parenchyma replaced by a large number of epithelioid granulomas comprising of epithelioid cells, Langhans type of giant cells and lymphocytes along with histiocytes.

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Learning points

- ▶ In patients of cholecystitis with cholelithiasis with non-specific symptoms and residing in areas with a high prevalence of tuberculosis, a high index of suspicion should be kept in mind with gallbladder tuberculosis as a cause, and prompt and vigorous attempts should be made for obtaining a preoperative histological or bacteriological diagnosis.
- ▶ In those with no definite diagnosis, preoperative tissue for frozen section should always be obtained.
- ▶ Adequate antitubercular treatment results in low morbidity and mortality and good long-term outcome and may help avoid an unnecessary surgery in a medically curable disease.

There is no pathognomonic presentation of GB tuberculosis, which can vary from a surprise, on histological examination,⁵ to GB perforation.⁶ GB tuberculosis presents with symptoms of tuberculosis such as malaise, anorexia, low-grade fever, upper abdominal pain, jaundice,⁷⁻⁸ discharge at the umbilicus due to tuberculous seedling⁹ GB perforation and intrahepatic biloma.⁷ There are no specific investigations for GB tuberculosis. Ultrasound examination¹⁰ may show a stone, wall thickness or associated liver lesion. Associated abdominal tuberculosis may indicate GB involvement. As tuberculous cholecystitis is difficult to diagnose, all resected cholecystectomy specimens should be

sent for HPE for evidence of tuberculosis. Suspicion of GB tuberculosis would lead to more cases being diagnosed, particularly when features of abdominal tuberculosis are present, and this would lead to proper treatment of medically curable disease which has to follow surgery unavoidably.

Competing interests None.

Patient consent Obtained.

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