

Case Report

Cholecystocolic Fistula: A Diagnostic Dilemma

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Abstract

Cholecystocolic fistula is a rare biliary-enteric fistula with a variable clinical presentation. Despite modern diagnostic tools a high degree of suspicion is required to diagnose it preoperatively^{1,2}. Biliary-enteric fistulae have been found in 0.9% of patients undergoing biliary tract surgery. The most common site of communication of the fistula is a cholecystoduodenal (70%), followed by cholecystocolic (10-20%), and the least common is the cholecystogastric fistula accounting for the remainder of the cases. Even a case of choledochocolonic fistula through a cystic duct remnant has been reported³. These fistulae are treated by open as well as laparoscopic surgery with no difference in intraoperative and postoperative complications. We report a case of obstructive jaundice, which was relieved by itself and was investigated with abdominal ultrasonography and routine investigations but none of these gave us any clue to the presence of the fistula which was discovered incidentally during an open surgery and was appropriately treated.

Key words: biliary-enteric fistula; cholecystectomy; cholecystocolic fistula

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Introduction

Spontaneous biliary-enteric fistulae have been rarely reported^{4,5,6}. In fact most of such fistulae result as complication of gall stone disease. The sequence of events occurs in acute calculous cholecystitis. During these attacks, the adjacent serosal surfaces become inflamed and adherent to the gall bladder. The ischemic area in the wall of the gall bladder becomes gangrenous and because of the increased pressure within, its contents penetrate its own necrotic wall first and then the wall of the adjacent colon forming a cholecystocolic fistula. Another cause is from the pressure necrosis of an impacted gall stone usually at the neck of the gall bladder which usually erodes into the colon.

Case Report:

A 35year-old- woman presented to the surgery out-

patient department of our hospital with the history of jaundice 2 months back which was relieved by medications. Now patient was having pain upper abdomen for the past few days. Pain was sudden in onset, colicky in nature and was radiating to back. There was history of intermittent high grade fever with chills and rigors during past few days. On examination she was found afebrile with no jaundice, tenderness in right hypochondrium was present, No Hepatomegaly and no mass palpable in right hypochondrium. Blood Examination relieved serum bilirubin (D) 0.60 mg/dl, bilirubin (T) 1.0 mg/dl, ALP- 386 IU/L, R.F.T within normal limits, TLC- 7000/mm³, Serum amylase within normal limits, HIV & Hepatitis test were non reactive. USG Abdomen showed cholechodolithiasis with extra hepatic biliary obstruction with focal rent in the medial wall of gall bladder with associated peric-

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cholecystic collection.(Figure 1)

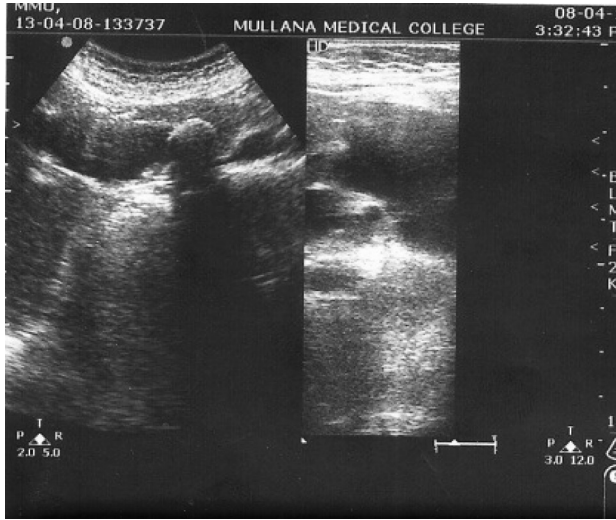


Figure 1: cholechodolithiasis with extra hepatic biliary obstruction

Patient was taken up for surgery. Operative findings were as follows. Gall bladder was having adhesions with the omentum and nearby gut loops. There was a single cholecystocolic fistula in the hepatic flexure and single big calculus approx 4 cm was taken out from the colon. The fistulous tract was excised along with cholecystectomy and enterostomy wound closed after removal of calculus. Post operative period was uneventful. Patient was discharged on 14th day of surgery.

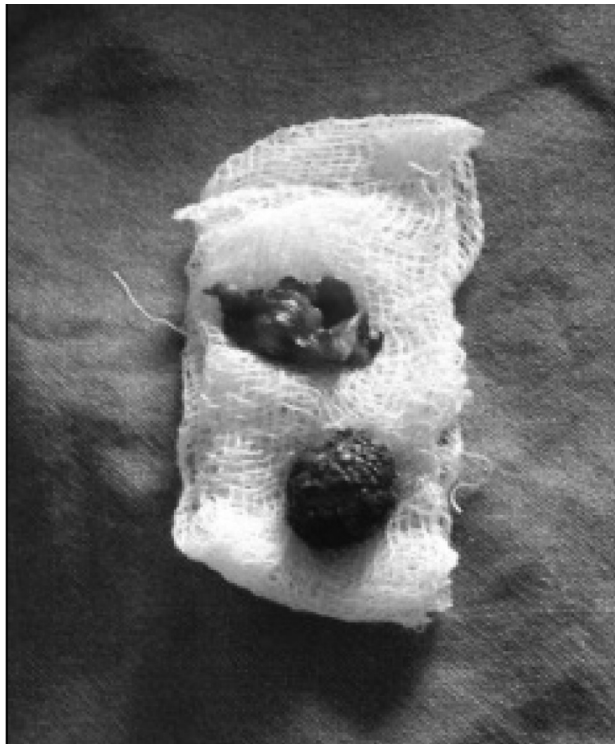


Figure 2: showing gall stone and fistula

Histopathology Report (HPR No. 394/13)- Sections show ulcerated mucosa along with fistulous tract lined by dense inflammatory infiltrate composed of lymphocytes and plasma cells and granulation tissue. Histology consistent with the clinical diagnosis of chronic cholecystitis with cholecystocolic fistula. (Figure 3)

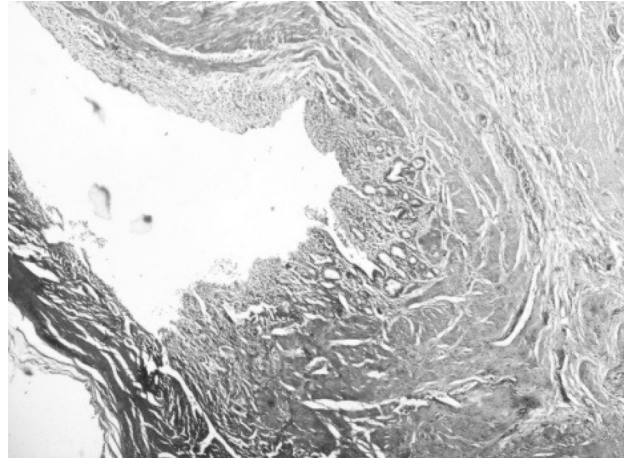


Figure 4: histopathology showing cholecystocolic fistula

During follow up patient was found to be in normal condition.

Discussion:

Spontaneous cholecystocolic fistula comprises 10-20% of all biliary-enteric fistulae⁷. In majority of the cases they are sequel to cholecystitis but are reported to complicate only 0.13% cases. They have also been reported in Crohn's disease, ulcerative colitis, abdominal trauma and malignancy of the biliary tract, the bowel and the head of the pancreas. Cholecystocolic fistula can present with abdominal pain, nausea, weight loss, diarrhoea and dyspeptic symptoms. This fistula can alter the normal entero-hepatic circulation of the bile acids leading to their malabsorption⁸. The bile acids also stimulate the colonic mucosa directly to secrete water and electrolytes excessively leading to steatorrhea and diarrhoea. Rare cases have been reported with the stone being impacted at the recto sigmoid causing large bowel obstruction due to such fistulae⁹. If found incidentally during laprotomy these fistulae should be repaired because of the increased risk of cholecystitis, cholangitis and 15% chance of malignancy in the gall bladder. The most useful techniques for the diagnosis are a plain film of the abdomen, abdominal ultrasonography, barium studies, biliary scintigraphy and ERCP. Although a diagnosis of cholecystocolic fistula is rarely suspected clinically

it should be considered in elderly patients with unexplained pneumobilia or unexplained persistent diarrhoea. ERCP can be helpful in establishing the diagnosis especially if barium studies give negative results.

Conclusion:

Biliary-enteric fistulae are a rare complication of gallstones but malignancy and other known etiolo-

gies must be ruled out. Diagnosis is difficult and may require diverse preoperative studies. Open cholecystectomy with closure of the fistula remains treatment of choice for non obstructing cholecystocolonic fistula. Laparoscopic surgery given its aesthetic advantages and questionable increase in operative time has not shown significant difference in intraoperative or postoperative complications¹⁰.

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