



INTESTINAL OBSTRUCTION IN A BILIARY COLIC PATIENT WITH CHOLECYSTODUODENAL FISTULA -A RARE CASE REPORT

General Surgery

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ABSTRACT

Introduction:Cholecystoenteric fistulas, which are rare complications of gallstone disease, have an incidence of 3-5% in patients with cholelithiasis. The most common variety of biliary-enteric fistula is cholecystoduodenal fistula[1-4]. Clinically, presentation is variable, with a history of pain in the right upper quadrant and/or epigastrium, jaundice, and flatulent dyspepsia that is aggravated by the intake of fried food [3].

Case Report: We are reporting a case of a 48 year male with a complaint of pain in right upper abdomen for 4 days with no passage of flatus and stools since 2 days accompanied by multiple episodes of vomiting and abdominal distension. He had a similar episode a year back and was diagnosed with chronic cholecystitis. His outside investigations were suggestive of stones impacted at the neck of gallbladder with wall thickening. A magnetic resonance cholangiopancreatography showed presence of communication between gallbladder and duodenum with resulting intestinal obstruction. The patient was managed with open cholecystectomy with dismantling of fistula and enterotomy with fistula repair.

Conclusion: No specific clinical symptoms or signs can lead to the diagnosis of a biliary-enteric fistula [6]. There are nonspecific symptoms which mimic those of any chronic biliary-tract disease. The majority of patients have a history of prolonged gallstone disease. Complications of biliary-enteric fistulas are ascending cholangitis; gallstone ileus; weight loss and malabsorption; carcinoma, and sometimes, gastrointestinal hemorrhage [7].

KEYWORDS

Cholecystoduodenal fistula, chronic cholelithiasis, gallstone

INTRODUCTION

A bilio-enteric fistula, the most common being gallbladder and duodenum, forms a passage for the large gallstone[9]. This results in obstruction in the bowel, most commonly the terminal ileum or the ileocecal valve, if the diameter of that segment is at least 2–2.5 cm[10]. The most common variety of biliary-enteric fistula is cholecystoduodenal fistula[1-4]. Clinically, presentation is variable, with a history of pain in the right upper quadrant and/or epigastrium, jaundice, and flatulent dyspepsia that is aggravated by the intake of fried food [3]. The etiology of biliary-enteric fistulas is not yet clearly established. According to Glenn et al., [1] following stone formation in the gallbladder, obstruction of the cystic duct following an acute inflammatory response results in adhesion of the gallbladder to the adjacent viscus, usually duodenum. Recurrent episodes of such inflammation ultimately result in the destruction of the wall of the gallbladder and the adjacent viscus, and thus causing erosion and fistula formation. Raiford et al., [5] hypothesized that erosion of the tissues in the wall of the gallbladder with necrosis is the result of mechanical pressure by the gallstone that leads to fistula formation with the contiguous viscus.

Case report

A previously healthy 48 year old presented with complaints of pain in the epigastric and right hypochondriac region for the last 4 days with no passage of stools and flatus for the last 2 days. Patient also complained of abdominal distension in the last 2 days and had 5-6 episodes of light green colour vomitus. The abdominal pain was generalised, dull aching in nature, non-radiating and constant in frequency. History of anorexia present for a month. It was not associated with diarrhoea or bleeding per rectum. Patient is a known case of chronic cholecystitis.

Patient was a chronic alcoholic and used to consume more than one bottle a day for the last 5 years.

Patient had abdominal distension with tenderness and guarding over the upper right abdomen, with icterus. Bowel sounds were absent over the ileocecal region but were present over DJ flexure.

Abdominal sonography 4 months back was suggestive of a pericholecystic fluid with thickened gallbladder wall and a 46 mm

stone with two more stones measuring 9 and 8 mm. His recent sonography revealed the presence of air in the gallbladder lumen with only one stone measuring 9 mm.

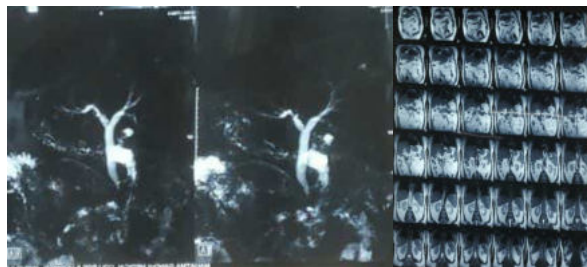
Triple phase CECT Abdomen revealed partially distended gallbladder with air in the lumen and medial wall of gallbladder not separable from duodenum which was suggestive of cholecystoduodenal fistula. Also revealed was a stone in jejunum causing mechanical obstruction with proximal loops and stomach dilation.



Triple phase contrast enhanced computed tomography

MRCP was performed which showed: gallbladder wall irregularly thickened about 9.5 mm in maximum thickness, 9 mm calculus impacted at the neck of gallbladder / proximal cystic duct and another stone measuring 9 mm in the body region, evidence of air-fluid level in the lumen of the gallbladder with thin communication between with the lumen of adjacent duodenum at the junction of first and second part suggestive of cholecysto-duodenal fistula, mild dilation of intra hepatic biliary tract with common hepatic duct and common bile duct measuring 9 and 11 mm respectively, there is smooth narrowing of

distal end of common bile duct with contraction of sphincter of oddi possibly suggesting recent inflammation / passage of calculus, presence of pancreatic divisum, dilation of jejunal bowel loops.



Magnetic resonance cholangiopancreatography

Patient was kept NBM with CRTS and catheterised. Intravenous fluids were started. Patient was planned for a one-stage procedure which included removal of the gallbladder with dismantling of the fistula with repair and enterotomy through a laparotomy.

Operative findings: ascites present, proximal small bowel loops till mid ileum dilated due to impaction of a large stone, distal ileum collapsed, gallbladder contracted with large fistula present with first part of duodenum, cholecystectomy done, stone in the cystic duct removed, enterotomy with hand sewn bowel repair and closure of fistula was performed.

DISCUSSION

Biliary-enteric fistulas have a reported incidence of 3-5% in patients with cholelithiasis, and are rare. Among all, the most common communication is cholecystoduodenal (61% to 77%), followed by cholecystocolonic (14% to 17%) and cholecystogastric (6%). Biliary tract fistulas can be categorized into spontaneous and post-operative types. Spontaneous biliary-enteric fistulas result from gallstones (90%), peptic ulcer disease (6%) and malignancy or trauma (4%). They are present in 0.15-4.8% in patients undergoing biliary surgery. [1-4].

Ultrasound and CT examinations are not always diagnostic but findings of pneumobilia, an atrophic gallbladder, and biliary stones can suggest the presence of an internal biliary fistula in some cases. [4]. CT scans, in particular, can allow for visualization of the fistulas, air in the biliary tree and contraction of the gallbladder, and differentiates between cholecysto-enteric and choledcho-enteric fistulas [8].

CONCLUSION

No specific clinical symptoms or signs can lead to the diagnosis of a biliary-enteric fistula [6]. There are nonspecific symptoms which mimic those of any chronic biliary-tract disease. The majority of patients have a history of prolonged gallstone disease. Physical findings are unremarkable; however sometimes, a vague fullness can be palpated in the right upper abdominal quadrant representing fistula and adhesions [7]. Other presenting symptoms consist of: Jaundice, right upper quadrant pain, epigastric pain, and flatulent dyspepsia that is aggravated by the intake of fried food [3]. Complications of biliary-enteric fistulas are ascending cholangitis; gallstone ileus; weight loss and malabsorption; carcinoma, and sometimes, gastrointestinal hemorrhage [7]. One-stage procedure should be performed in selected patients of not-advanced age, without important comorbidity. In these selected patients, it is possible to treat the disease in a single emergent surgical time, or sometimes after an appropriate preoperative stabilization of fluid and electrolyte balance.

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