

Gallstone Ileus: A complication Least Expected

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ABSTRACT

Gallstone ileus is an uncommon cause of mechanical small bowel obstruction. A high index of suspicion is needed so as to avoid the morbidity and mortality related to this condition in geriatric population in which it occurs more frequently. A 60-year old female presented with signs and symptoms of acute small bowel obstruction. Surgery a large stone was found impacted in the terminal ileum with a fistulous tract between the gallbladder and duodenum.

Key words Gallstone ileus, Small bowel obstruction, Elderly, Fistulous tract.

INTRODUCTION:

Gallstone or biliary ileus is an infrequent complication of cholelithiasis in 0.3% - 0.5% of patients with gall stone disease.¹ Its pathogenesis involves a setting of chronic cholelithiasis which progresses to the formation of a cholecystoduodenal fistula allowing a large calculus to track down into the gastrointestinal tract causing obstruction. It is implicated as the cause in only 1% - 4% of cases of small bowel obstruction but this occurrence significantly increases in the older age group above 65 years of age, where it accounts for 25% of cases of small bowel obstruction.²⁻⁴ Herein a rare case of gallstone ileus is reported.

CASE REPORT:

A 60-year old female was admitted through the Emergency Department with the complaints of severe vomiting, lower abdominal pain and fever of 39°C for two days. She described a sharp, colicky pain in her lower abdomen which increased in intensity on movement and was associated with abdominal bloating and vomiting. Vomitus was yellow-green in color with food residue. She had not passed stool for the last three days but was able to pass flatus. Patient had multiple admissions in the past to various hospitals for acute cholecystitis.

On examination, the patient was dehydrated with a pulse rate of 120/min and a blood pressure of 90/60 mmHg. Her abdomen was distended and tender. Nasogastric tube and Foley catheter were retained and resuscitation initiated. Her initial laboratory

evaluation revealed hemoglobin of 11.7 g/dl, white cell count of 7800/mm³ and a serum creatinine of 3.8 mg/dl with K⁺ of 3.7 mEq/L. An abdominal x-ray displayed multiple air fluid levels. Ultrasonography revealed dilated bowel loops with sluggish peristalsis and concretions in the left kidney. A provisional diagnosis of acute intestinal obstruction was made and a decision to perform exploratory laparotomy was taken.

A midline incision was made and multiple dilated loops of small bowel came out. On surveying the peritoneal cavity a 4 cm x 3 cm stone was found impacted in the ileum 2 feet proximal to the ileocecal junction with gut distal to the stone being collapsed (Fig. 1). A longitudinal enterolithotomy with transverse closure was carried out to retrieve the stone and then attention was diverted to the gallbladder. The gallbladder was severely inflamed and adherent to the second part of duodenum. Meticulous dissection



Fig 1: Stone retrieval at enterotomy

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was required to separate the two and the fistulous tract was excised. Cholecystectomy was performed and the duodenum was repaired using the Graham omental patch technique. The patient had an uneventful recovery from surgery and discharged on the 10th day without any complication.

DISCUSSION:

Gallstone or biliary ileus is a misnomer as it is not a paralytic cause rather a mechanical obstruction when stones are able to track via a fistulous communication between the gallbladder and the intestinal tract. These are impacted most commonly in the terminal ileum.⁵ When presenting with gastric outlet obstruction by impacting in the proximal duodenum, it has been termed as Bouveret syndrome.^{6,7}

The clinical features are quite subtle that usually precludes a preoperative diagnosis. Patients present with features of acute intestinal obstruction. The classic Rigler's triad described for abdominal radiographs includes pneumobilia, multiple air fluid levels and ectopic gallstones. This is appreciated only in 9%-14% of patients.⁸ Abdominal ultrasonography can be useful in determining cholelithiasis but a CT scan of the abdomen is more advantageous.^{9,10}

The aim of the treatment is to relieve the mechanical bowel obstruction. Surgery remains the mainstay of treatment. The surgical options include enterolithotomy with removal of stones alone as a two-step procedure with cholecystectomy and fistula repair at a later date or performing the entire operation in a single setting. In this case the later approach was adopted with satisfactory outcome.

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