Colonic Gallstone Ileus: An Unusual Presentation of Large Bowel Obstruction

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Introduction

Gallstone ileus is a rare complication of cholelithiasis, occurring in only 0.3-0.5% of gallstone patients, with colonic gallstone ileus being particularly uncommon. This condition develops when a gallstone erodes through the gallbladder wall, forming a cholecystocolonic fistula, and subsequently lodges in the colon, causing large-bowel obstruction. Here, we describe a 61-year-old male who presented with constipation and was found to have colonic gallstone ileus.

Case Report

A 61-year-old male with a history of HTN and CAD presented to the ED with constipation, bloating, and abdominal discomfort. CT imaging showed a stone-filled distended gallbladder, segmental colonic inflammation, and a stone within the sigmoid colon along with sigmoid colitis (Figure 1). Subsequently, the patient underwent a colonoscopy, which failed to retrieve the stone, leading to its removal using ring forceps during a flexible sigmoidoscopy (Figure 2). A second colonoscopy was scheduled following the removal of the stone, in which a cholecystocolonic fistula was identified and biopsied (Figure 3). Following symptom assessment and resolution of inflammation, the patient underwent a successful robotic-assisted laparoscopic cholecystectomy with fistula takedown and colon repair. Pathology confirmed chronic cholecystitis with benign tissue findings. The patient recovered well and was discharged on postoperative day one.

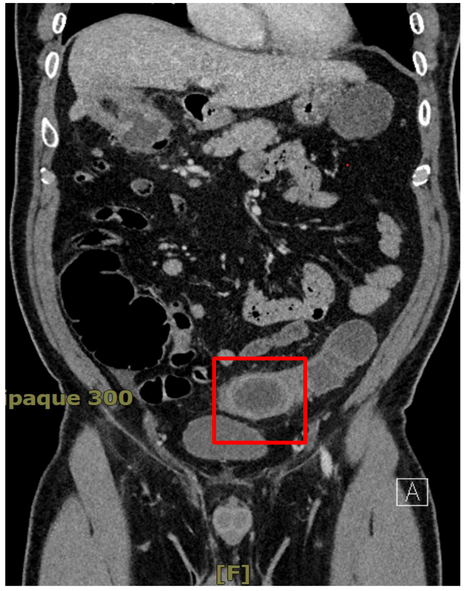


Figure 1- CT showing a gallstone lodged within the sigmoid colon



Figure 3- 10mm Cholecystocolonic fistula within the transverse colon.



Figure 2- : Image showing a 4.1 x 3.0 x 2.8 cm gallstone after it was retrieved from the sigmoid colon via the anus.

Discussion

Gallstone ileus is a rare cause of large bowel obstruction, with gallstones most commonly impacting the terminal ileum (50-60%), followed by the jejunum (16-27%), duodenum (3.5-14.6%), and colon (3-4%). Due to its rarity and nonspecific symptoms, diagnosing large bowel obstruction from gallstone ileus can be challenging, often presenting with abdominal pain, distension, vomiting, and constipation. Key diagnostic tools include CT imaging, which is the gold standard with high sensitivity (93%) and specificity (100%), although abdominal X-rays and MRI can also be used. Treatment typically involves a multidisciplinary approach, including bowel cleansing, endoscopic retrieval, or surgical interventions like enterolithotomy, with or without cholecystectomy and fistula closure. Postoperative complications can include renal failure, infections, and bowel issues. Timely diagnosis and intervention are crucial for improving outcomes and reducing the risk of severe complications like bowel perforation and sepsis.

Conclusion

Large bowel obstruction secondary to gallstone ileus is a diagnostic and therapeutic challenge. Successful management relies on prompt surgical intervention, contributing to better clinical outcomes and reduced morbidity and mortality.