

Gallstone Ileus: A Case Report

Jarrett Koper DO, C. Liz Bowers DO, Jonathan Leggett DO | Grand Strand Medical Center, HCA Healthcare

Introduction

Gallstone ileus is an uncommon and rare complication of cholelithiasis, affecting only up to 1.5% of people with cholelithiasis [3]. It typically affects older individuals and is more common in women than in men [1]. Gallstone ileus causes less than 1% of the total number of cases of intestinal obstruction [5]. Episodes of cholecystitis increase the likelihood of fistulization. Increasing inflammatory changes in the gallbladder wall leads to increased contact with the small bowel. Larger gallstones can create a pressure necrosis resulting in the formation of a fistula between the small bowel and gallbladder, allowing the passage of the gallstone from the gallbladder to the small bowel, most commonly the duodenum [1,2]. This phenomenon, although termed gallstone ileus, is a misnomer because it is a true mechanical obstruction and not an ileus [2]. Gallstone ileus is usually accompanied by Rigler's triad, which is consistent with a gallstone located in a loop of bowel, pneumobilia, and a mechanical bowel obstruction [1]. The treatment methodology for these patients is surgical [3].

Case Report

- 64-year-old female with a past medical history of COPD.
- Chief complaint: abdominal pain, nausea, and vomiting for one week. Patient has been unable to tolerate oral intake over the last week.
- Her only recorded surgery is a hysterectomy.
- On physical exam, she has a distended and diffusely tender abdomen.
- Labs showed hyponatremia, hypocalcemia, transaminitis, leukocytosis, anion gap metabolic acidosis, and UTI.
- Patient was also found to have an acute kidney injury secondary to fluid losses and sepsis secondary to gallstone ileus.
- CT scan shows pneumobilia and a large 3.1 cm stone in the distal small bowel causing a small bowel obstruction.
- Nasogastric tube placed
- Started on ceftriaxone and metronidazole
- Fluids and electrolyte replacement protocol started
- Patient was taken to surgery immediately for an exploratory laparotomy and enterolithotomy which revealed a 2 cm gallstone lodged in the mid-ileus.
- By post-op day 3, patient's nasogastric tube was removed and she was able to eat and have a bowel movement.
- Discharged on post-op day 5 with surgery follow up in 1 week to discuss cholecystectomy.

Images



Figure 1: CT scan showing pneumobilia and a 3.1 cm stone in the distal stone bowel in the coronal view.



Figure 2: CT scan showing pneumobilia and a 3.1 cm stone in the distal stone bowel in the axial view.

Discussion

Gallstone ileus usually presents with nonspecific symptoms which can make diagnosis difficult and lead to a delay. A delay in the diagnosis can lead to more serious presentations such as shock, sepsis, and peritonitis. Computed tomography is the diagnostic imaging modality of choice. Complications of gallstone ileus include recurrence of gallstone ileus, current cholecystitis, acute cholangitis, and gallbladder cancer. To reduce the risk of these complications, some recommend performing the one-stage procedure for surgical management of gallstone ileus. The one-stage procedure includes an enterolithotomy, cholecystectomy, and fistula closure. However, enterolithotomy alone has shown to have lower mortality. Given that most of the patients presenting with gallstone ileus are elderly people with multiple comorbidities, enterolithotomy alone is recommended in this population. Postoperative complications are fairly common with a occurrence of 45-63%. The most common complication used to be wound infection, followed by wound dehiscence, sepsis, fistulas, urinary tract infections, and cardiovascular or pulmonary complications. Now, wound infection has been replaced by acute renal failure as the most common postoperative infection. Mortality rates for gallstone ileus are high with a range of 40-50%. The one-stage procedure has a higher mortality rate than enterolithotomy alone. Numerous things are suspected to attribute to the high mortality rate: the patient population being the elderly, the multiple comorbidities of the patients, the delay in diagnosis, and the high rate of postoperative complications [5].

References

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