Gallstone ileus after cholecystectomy
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Gallstone ileus is an uncommon cause of mechanical bowel obstruction caused by a biliary-enteric fistula. This infrequent cause of small bowel obstruction is usually compounded by multiple medical conditions that generally requires a complex surgery. In the population of patients over 65 years old, 25% of non-strangulated small bowel obstructions are caused by gallstone ileus. Due to the delayed diagnosis, mortality is high nearing one in five cases. In this case report, we address if prophylactic cholecystectomy would prevent gallstone ileus.

An 83-year-old female with unknown past medical history presented to a rural emergency room with abdominal pain for the past three days. She had associated nausea and vomiting with localized pain to the right upper quadrant. There was no hematochezia, melena, or hematemesis. A CT of the abdomen revealed evidence of a large stone in the duodenum, ileus, air in the gallbladder fossa and no visualization of the gallbladder. Subsequently, she was transferred to another facility for higher level of care with admission to the intensive care unit (ICU). Vitals upon admission to the ICU reveal blood pressure 70/26, heart rate 103, respiratory rate 22, oxygen saturation of 93% on room air, temperature 98.1 Fahrenheit. Labs: WBC 10.0, Hgb 14.7, Hct 45.0, Plt 388, Sodium 133, Potassium 4.5, Chloride 98, Carbon Dioxide 17, BUN 43, Creatinine 2.20, Glucose 148, Calcium 10.2, Total bilirubin 0.9, AST 36, ALT 32, Alkaline Phosphatase 165, Total protein 7.1, Albumin 4.0, Lipase 381. She was started on IV Ertapenem and vasopressors with IV fluid boluses. Blood pressure returned to normal after fluid resuscitation and vasopressors were eventually weaned without complication. General surgery evaluated the patient and took her to the operating room. An exploratory laparotomy was performed, revealing an adhesion from the duodenum to the liver and a large firm mass in the duodenum. The gallbladder was not visualized. During the surgery, an EGD was performed to confirm anatomy and visualize the suspected stones prior to making an incision into the small intestine. Gallstones were noted in the stomach and the proximal duodenum. Next, an enterotomy was made at the antimesenteric border removing the stone in the duodenum. Specimens were sent to pathology where they commented on a green-black stone measuring 2.8cm x 2.8cm x 2.8cm from the stomach and a green-black nodular stone measuring 4.3cm x 3.5cm from the duodenum. The remainder of the hospital stay remained uncomplicated and she was later discharged to a skilled nursing unit with Tylenol for pain and a diagnosis of gallstone ileus.

This article represents the fourth reported case according to our knowledge, where gallstone ileus has presented in a patient following cholecystectomy. Gallstone ileus occurs in less than 0.5% of patients with a gallbladder and even less in those after cholecystectomy. Due to the low incidence of this disease and with the potential for small bowel obstruction after cholecystectomy, we do not recommend prophylactic surgery. Given that gallstone ileus has a high mortality rate with delayed diagnosis, all elderly patients with abdominal pain and history of cholecystectomy should still have gallstone ileus included in the differential diagnosis.