

# Gallstone Ileus

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## CASE STUDY:

### **PRESENTATION:**

An 80-year-old male with a past medical history significant for hypertension, hyperlipidemia, and past pulmonary embolism actively on Xarelto, presented with a several day history of nausea and vomiting with diarrhea, which had progressed to coffee ground emesis on day of presentation. On initial interview he stated his nausea, vomiting, and diarrhea were associated with abdominal tenderness, distension, and associated weakness as a result of decreased oral intake over the few days prior to presentation. He had never experienced these symptoms previously.

On initial CT of the abdomen and pelvis, a mid small bowel intussusception was suggested with mildly dilated proximal small bowel and stomach, as well as a right-sided aspiration pneumonia for which the patient received intravenous Zosyn and Rocephin. Also noted was cholelithiasis with inability on initial CT to rule out calculus cholecystitis. A nasogastric tube was placed for proximal bowel decompression. The patient was admitted for further evaluation.

### **HOSPITAL COURSE:**

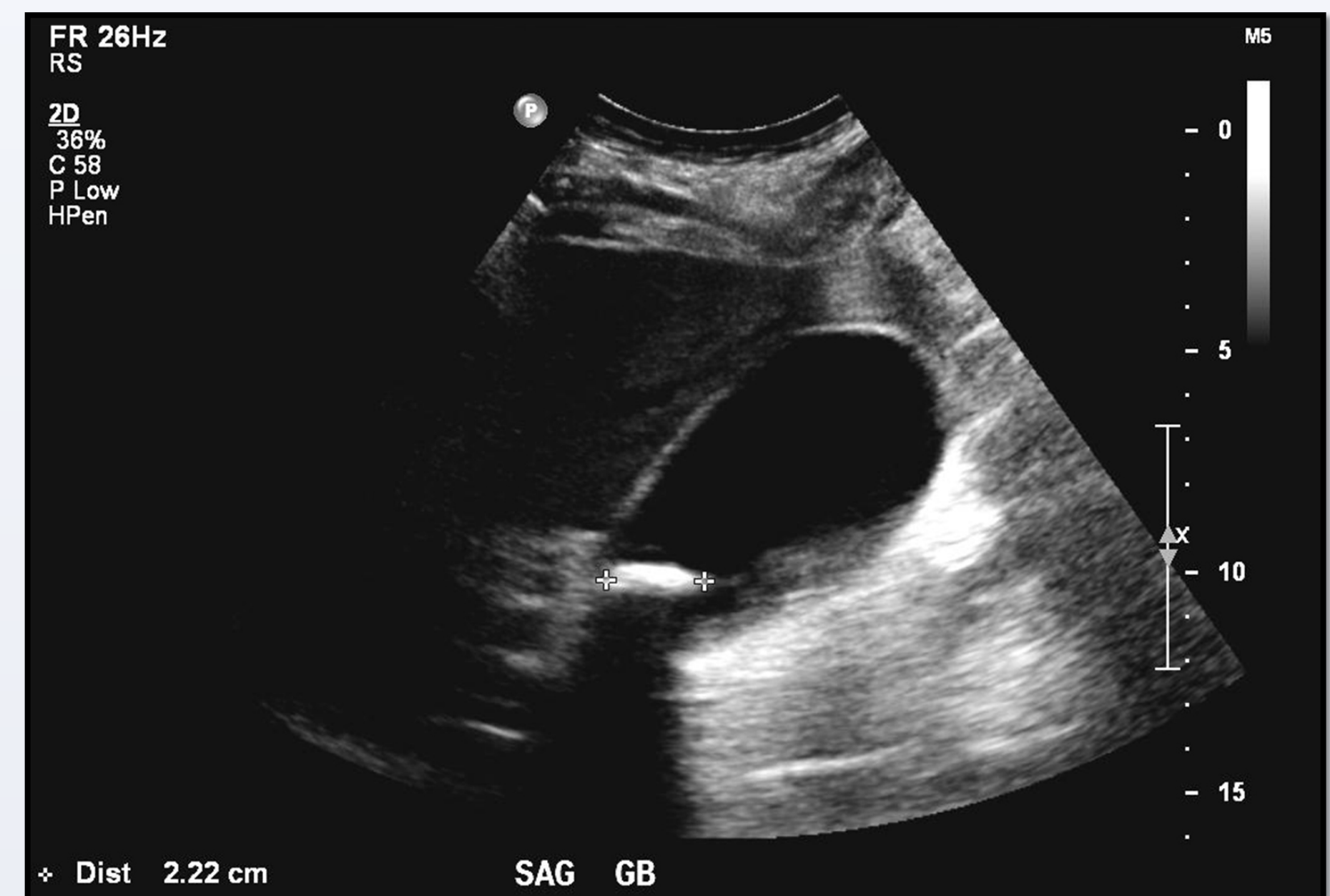
Over the initial two days of the patient's hospital stay the patient's symptoms improved, however, he continued to have high-volume bilious nasogastric tube output. A follow-up CT of the abdomen and pelvis showed multiple persistently dilated loops of proximal small bowel, disruption of the gallbladder, air within the gallbladder fossa with associated pneumobilia, and a spherical hyperattenuating object within the mid bowel consistent with a gallstone. These findings were all consistent with the diagnosis of gallstone ileus. Further review of the patient's prior imaging demonstrated an abdomen ultrasound performed months before admission with a 2.2 cm intraluminal gallstone.

### **SURGICAL TREATMENT:**

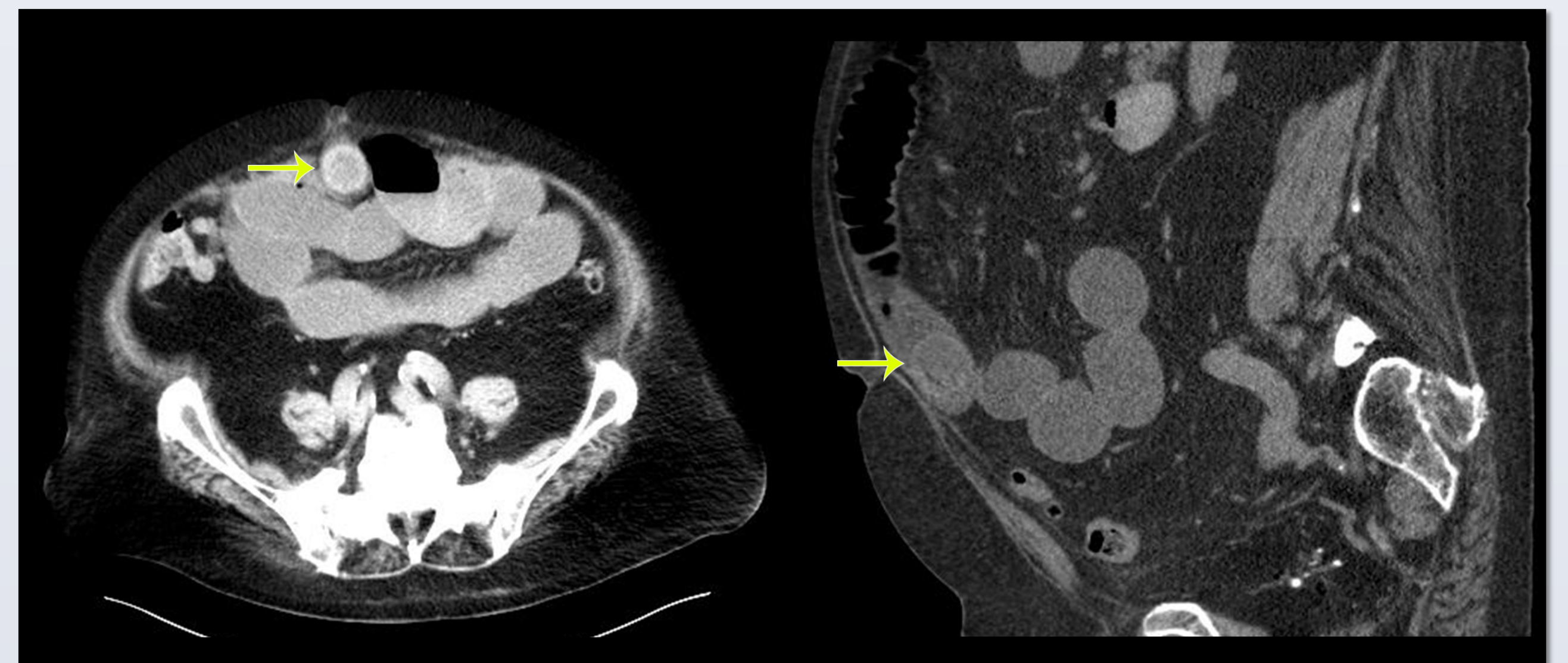
Due to changes in clinical status and high suspicion of gallstone ileus at the time, the risks, benefits, and alternatives of exploratory laparotomy were discussed with the patient for management of gallstone ileus. The patient elected to undergo exploratory laparotomy, enterotomy with removal of 2.7cm obstructing gallstone from mid-jejunum, with primary closure of enterotomy via double-layer Lambert closure. It was decided not to take down the fistula due to his comorbidities. The patient tolerated the procedure well.

### **DISCUSSION:**

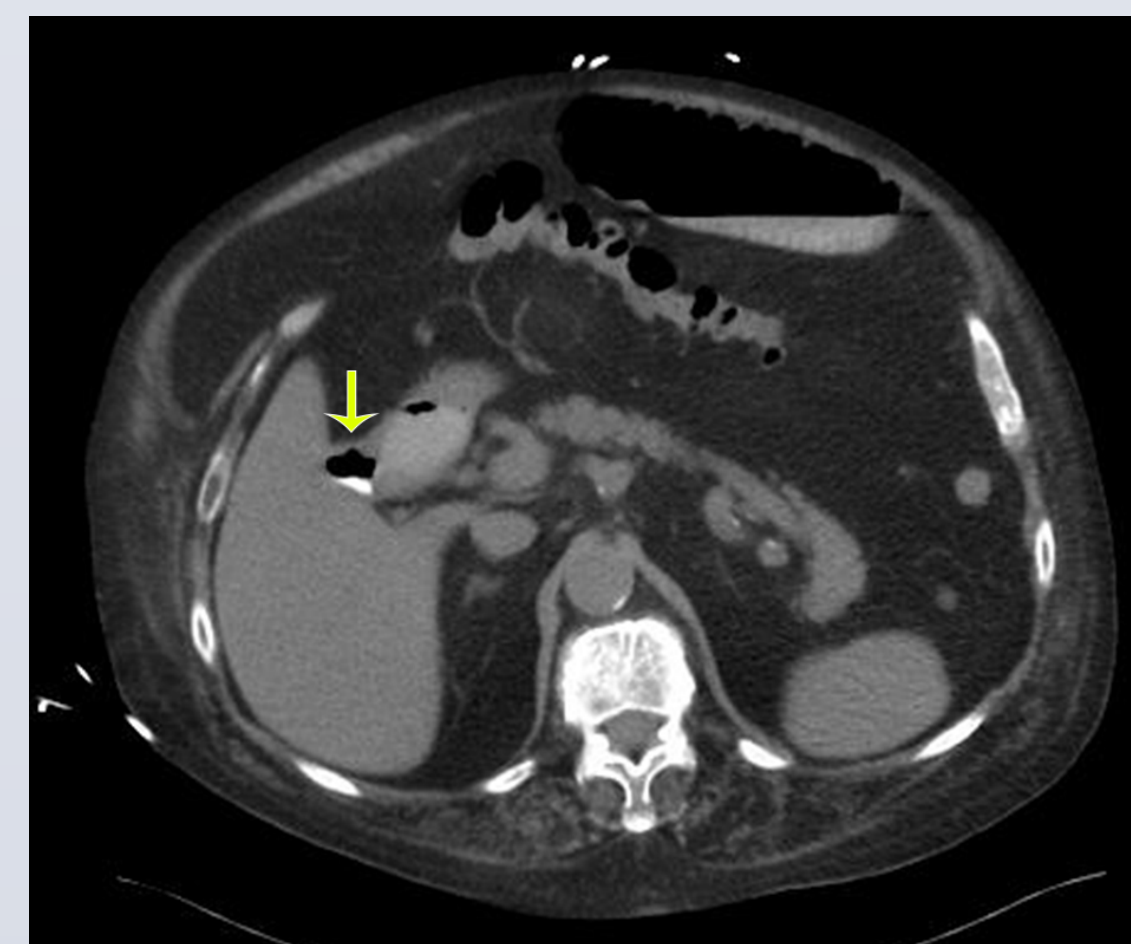
The best diagnostic clue for gallstone ileus is Rigler's Triad which consists of: small bowel obstruction, gas within the biliary tree, and ectopic gallstone. The number one imaging differential includes intussusception due to its similar ring appearance at the transition point of dilated small bowel. Gallstone ileus is a typical sequela of chronic cholecystitis or a delayed complication of ERCP. Given the patient's prior ultrasound with intraluminal stone this patient likely was suffering from chronic cholecystitis prior to presentation.



The above sagittal ultrasound image of the gallbladder demonstrates a 2.2 cm intraluminal mobile hyperechogenicity with posterior shadowing consistent with gallstone. Seen months prior to patient's initial presentation.



The arrows above demonstrate a mildly hyperattenuating spherical object within the mildly dilated and fluid filled mid small bowel consistent with CT appearance of gallstone.



The arrow on the left depicts a tract between the abnormal appearing air-filled gallbladder fossa and the duodenum. The image on the right demonstrates air within the hepatic ducts tracking up towards the left hepatic lobe.



Gross image on the left demonstrates a 3.0 cm gallstone. Pathologic gross examination demonstrated internal architecture consistent with cholesterol stone.

## CONTACTS

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