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Gastroenterology

An elderly woman with intermittent and progressive abdominal pain

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1 | CASE PRESENTATION

An 89-year-old woman attended the emergency department with vomiting and constipation of 1-week duration associated with progressively increasing abdominal pain. Examination demonstrated generalized abdominal tenderness with no evidence of peritonism. Laboratory studies revealed a white cell count of 12,200 per cubic millimeter (4000–11,000). Abdominal radiography was undertaken due to a suspicion of bowel obstruction and demonstrated Rigler's triad: dilated loops of small bowel (Figure 1, blue arrow) on the left of the abdomen, pneumobilia (Figure 1, red arrow), and a faint focus of calcification projected over the left iliac bone (Figure 1, purple arrow). Computed tomography of the abdomen and pelvis was subsequently undertaken. Signed consent was obtained from the patient.

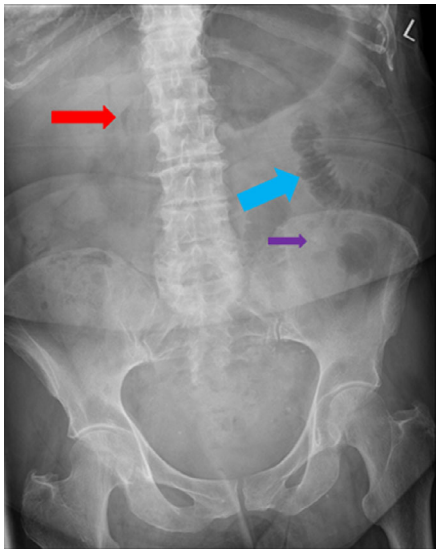

FIGURE 1 Plain abdominal radiograph demonstrating Rigler's triad

2 | DIAGNOSIS

2.1 | Gallstone ileus

Computed tomography demonstrated a small bowel obstruction with a transition point at a 17-millimeter calcified stone (Figure 2, purple arrow) with air in the biliary tree (Figure 2, red arrow) and gallbladder. Emergent laparoscopic enterotomy was undertaken, and the

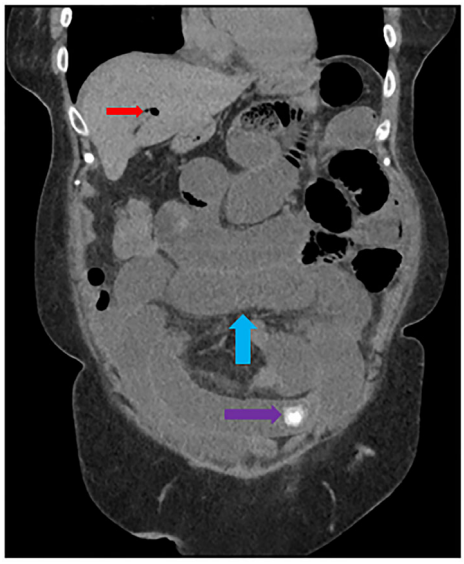

FIGURE 2 Abdominal and pelvic computed tomography showing bowel obstruction with a transition point at a 17-millimeter gallstone. Pneumobilia is also seen

gallstone was removed from the mid-ileum. The patient had an unremarkable post-operative recovery.

Gallstone ileus represents an uncommon complication of cholelithiasis. Ordinarily, it results from adhesions between the inflamed gallbladder wall and adjacent bowel, which leads to a cholecysto-enteric fistula, allowing direct access of gallstones to the gastrointestinal tract. As in this case, presentation can be intermittent and non-specific over several days due to the "tumbling phenomenon" as the stone progresses through different parts of the gastrointestinal tract causing transient gallstone impaction at different sites.[1] It is more common in women and with advancing age, and the most common site of its final eventual impaction is the ileum in up to 60% of cases.[2]

REFERENCES

1. Abich E, Glotzer D, Murphy E, Gallstone ileus: an unlikely cause of mechanical small bowel obstruction. *Case Rep Gastroenterol*. 2017;11(2):389-395.
2. Inukai K. Gallstone ileus: a review. *BMJ Open Gastroenterol*. 2019; 6(1): e000344.

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