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Upper gastrointestinal bleeding and Rigler triad

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Dear Editor,

We present the case of a 92-year-old male who had a previous episode of acute lithiasic cholecystitis 3 months ago, which was treated conservatively. He presented to the Emergency department with acute epigastric pain radiating to the back, accompanied by nausea and chills, but no fever. Blood test showed normal levels of amylase, bilirubin and liver enzymes, with a mild elevation of acute phase reactants: leukocytes 14000/mm³ and C-Reactive Protein level of 4.99 mg/dL (the upper limit of normal is 0.5 mg/dL). An abdominal ultrasound was performed, revealing gallbladder dilatation, gallstones and gallbladder wall thickening, suggestive of acute cholecystitis.

The patient was treated with intravenous antibiotics, fluid hydration and bowel rest. During admission, he experienced an episode of hematemesis within the first 24 hours. Emergency gastroscopy revealed a large blood clot in the inferior wall of the duodenal bulb surrounded by purulent drainage (Fig. 1A). Due to suspicion of a bilioenteric
fistula, the gastroscopy was interrupted and an urgent CT scan was performed, which showed signs of acute cholecystitis with aerobilia and cholecystoduodenal fistula (Fig. 1B). Additionally, there was a 2.5 cm gallstone located in the terminal ileum causing small bowel obstruction (Fig. 1C and D).

The patient was transferred to a tertiary referral hospital, where he underwent urgent surgery: an enterotomy was performed for stone extraction, with no biliary intervention.

24 hours later, he experienced a new episode of hematemesis. A subsequent emergent gastroscopy revealed the fistula without a blood clot at that time (Fig. 1E), showing a bleeding vessel on its edge (Fig. 1F), which was treated with a hemostatic clip and adrenaline injection (Fig. 1G).

The patient had a poor postoperative course and passed away 7 days later.

DISCUSSION

Gallstone ileus is a rare complication of cholelithiasis (0.03-0.05%). It is a mechanical bowel obstruction caused by a biliary calculus originating from a bilioenteric fistula (1). The most common communication route is from the gallbladder to the duodenum (cholecystoduodenal fistula) (2). It is exceptional to observe a complete Rigler triad, which includes aerobilia, ectopic gallstone and intestinal obstruction (3).

The clinical presentation of gallstone ileus is variable, although there have been rare reports of upper gastrointestinal bleeding (4).

Therefore, we present a very rare case with both the Rigler triad and upper gastrointestinal bleeding.

Surgical treatment is required to resolve the intestinal obstruction initially, usually followed by a second surgery to perform a cholecystectomy and repair the bilioenteric fistula (5).

REFERENCES


Fig. 1. A) Initial gastroscopy showing a blood clot in the duodenal bulb, surrounded by purulent drainage. B, C, and D) CT scan illustrating a cholecystoduodenal fistula with
aerobilia (B, arrow) and a 2.5cm gallstone in the terminal ileum causing small bowel obstruction (C and D, arrow and asterisk). E, F and G) Subsequent gastroscopy revealing a normal duodenal lumen (green arrow) and the fistula (asterisk), with a visible vessel on its edge (F, arrow) treated with a hemostatic clip (G, arrow).