

Title:

Upper gastrointestinal bleeding and Rigler triad

Authors:

Margarita Fernández-de la Varga, Isabel Pérez Valle, Carlos Ordieres Díaz, Álvaro Gejo Benéitez, Pedro Amor Martín, Marta Álvarez Posadilla, Fernando Fernández Cadenas, Adrián Huergo Fernández

DOI: 10.17235/reed.2023.9731/2023

Link: [PubMed \(Epub ahead of print\)](#)

Please cite this article as:

Fernández-de la Varga Margarita, Pérez Valle Isabel, Ordieres Díaz Carlos, Gejo Benéitez Álvaro, Amor Martín Pedro, Álvarez Posadilla Marta, Fernández Cadenas Fernando, Huergo Fernández Adrián. Upper gastrointestinal bleeding and Rigler triad. Rev Esp Enferm Dig 2023. doi: 10.17235/reed.2023.9731/2023.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

CC 9731

Upper gastrointestinal bleeding and Rigler triad

Margarita Fernández de la Varga¹, Isabel Pérez Valle¹, Carlos Ordieres Díaz¹, Álvaro Gejo², Pedro Amor Martín¹, Marta Álvarez Posadilla¹, Fernando Fernández Cadenas², Adrián Huergo Fernández¹

¹Gastroenterology Clinical Management Unit. Hospital Álvarez Buylla. Mieres, Asturias.

²Department of Gastroenterology. Hospital Universitario Central de Asturias. Oviedo, Asturias

Correspondence: Margarita Fernández de la Varga

e-mail: margafvarga@gmail.com

Conflict of interest: the authors declare no conflict of interest.

Keywords: Upper gastrointestinal bleeding. Rigler triad. Cholecystoduodenal fistula.

Dear Editor,

We present the case of a 92-year-old male who had a previous episode of acute lithiasic cholecystitis three months previously, 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 14,000/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, which was 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 computed tomography (CT) scan was performed, which showed signs of acute cholecystitis with aerobilia and cholecystoduodenal fistula (Fig. 1B). In addition, 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. Twenty-four hours later, he experienced a new episode of hematemesis. A subsequent emergency 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 seven 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 initially required to resolve the intestinal obstruction, usually followed by a second surgery to perform a cholecystectomy and repair the bilioenteric fistula (5).

References

1. Halabi WJ, Kang CY, Ketana N, et al. Surgery for gallstone ileus: a nationwide comparison of trends and outcomes. *Ann Surg* 2014;259(2):329-35. DOI: 10.1097/SLA.0b013e31827eefed
2. Kumar N, Anjum R, Mani R, et al. Neglected gallstone disease presented as gallstone ileus: a rare cause of intestinal obstruction. *Cureus* 2021;13(9). DOI:

10.7759/cureus.18205

3. Rigler L, Borman C, Noble J. Gallstone obstruction: pathogenesis and Roentgen manifestations. J Am Med Assoc 1941;117(21):1753-9. DOI: 10.1001/jama.1941.02820470001001
4. Goyes D, Trivedi HD. Upper gastrointestinal bleeding: a potential precursor to Bouveret's syndrome. Cureus 2021;13(4). DOI: 10.7759/cureus.14368
5. Moberg AC, Montgomery A. Laparoscopically assisted or open enterolithotomy for gallstone ileus. Br J Surg 2007;94(1):53-7. DOI: 10.1002/bjs.5537

Accepted Article

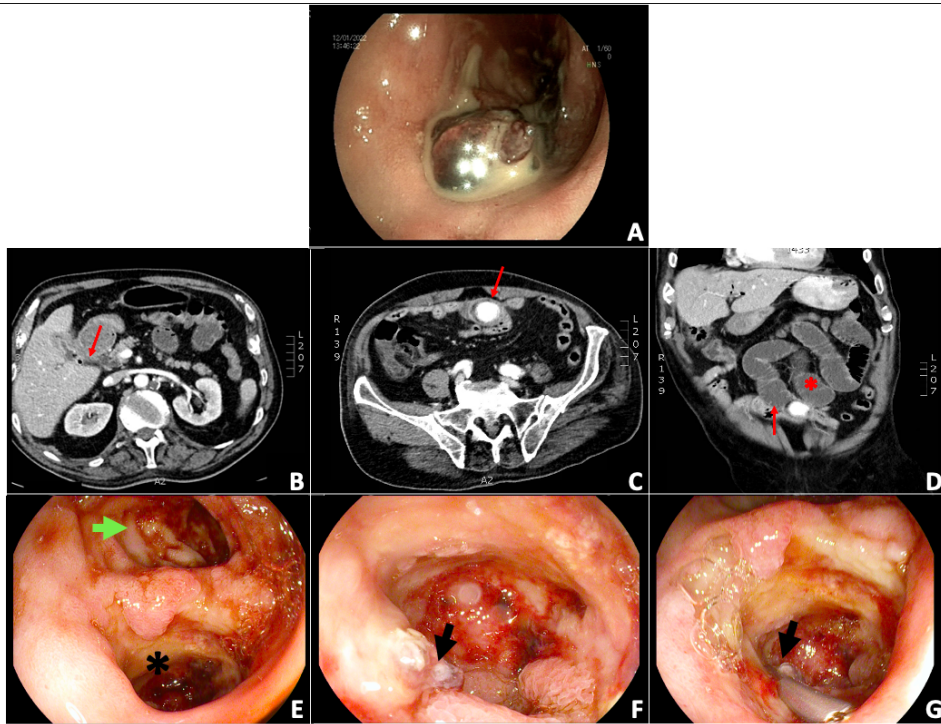


Fig. 1. A. Initial gastroscopy showing a blood clot in the duodenal bulb, surrounded by purulent drainage. B-D. Computed tomography (CT) scan illustrating a cholecystoduodenal fistula with aerobilia (B, arrow) and a 2.5 cm gallstone in the terminal ileum causing small bowel obstruction (C and D, arrow and asterisk). E-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).