

Bouveret syndrome - a rare variant of gallstone ileus

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Abstract

Bouveret syndrome is a rare cause of gastric outlet obstruction by passage of gallstone through a fistula between the gallbladder and proximal gastrointestinal tract, it is considered a proximal form of gallstone ileus. The clinical presentation is nonspecific, and imaging plays an important role in the diagnosis of this entity.

Title

Bouveret syndrome - a rare variant of gallstone ileus

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Keywords

Bouveret syndrome, gastric outlet obstruction, gallstones, case report

Key Clinical Message

Bouveret syndrome is a rare entity and should be taken into consideration as a differential diagnosis of proximal gastric outlet obstruction. CT examination is considered the gold standard, but an abdominal radiography can make the diagnosis.

Abstract

Bouveret syndrome is a rare cause of gastric outlet obstruction by passage of gallstone through a fistula between the gallbladder and proximal gastrointestinal tract, it is considered a proximal form of gallstone ileus. The clinical presentation is nonspecific, and imaging plays an important role in the diagnosis of this entity.

Main Text

An 85-year-old man presented to Emergency Department with a history of epigastric pain and vomiting for 2 days. On physical examination, his abdomen was distended and painful to palpation. Laboratory findings showed raised inflammatory markers.

Plain abdominal radiograph (Figure 1) showed gastric distension with air-fluid level, pneumobilia and an ectopic calcified gallstone in the lower right quadrant. This represents the Rigler triad, suggesting gallstone ileus. Contrast-enhanced CT (Figure 2) revealed marked gastric distension and stasis conditioned by a 4cm gallstone in the level D3 of duodenum. CT also showed cholelithiasis and a cholecystoduodenal fistula. In addition to pneumobilia, there was also pneumoportia and associated pneumatosis of the gastric wall, suggesting ischemia due to acute massive distension. Subsequently, the patient was submitted to open enterolithotomy, but died 13 days later.

Bouveret syndrome is a rare subset of gallstone ileus that presents with gastric outlet obstruction secondary to impaction of a gallstone in the pylorus or proximal duodenum, via an acquired cholecystoenteric fistula¹. In addition to the Rigler triad, CT can also depict the fistula, number and location of the gallstones, status of the gallbladder, level and degree of obstruction and signs of ischemia, that are important factors for the treatment decision².

Authors' Contribution

Author 1: wrote the article, made the literature review, and edited the images.

Author 2 and 3: edited the images and reviewed the manuscript.

Conflict of Interest Statement

None declared.

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Figure legends

Figure 1 – Abdominal radiograph in seated position shows gastric distension with air-fluid level (asterix), pneumobilia (arrow) and an ectopic calcified gallstone in the lower right quadrant (arrowhead) – Rigler triad.

Figure 2 - Coronal image of contrast-enhanced abdominal CT shows marked gastric stasis and distension conditioned by a gallstone (arrowhead) in the level D3 of duodenum and the cholecystoduodenal fistula (arrow). CT also depict pneumatosis of the gastric wall (open arrowhead) and associated pneumoportia (open arrow), suggesting ischemia due to acute massive distension.



