Bouveret’s Syndrome: Definitive Diagnosis with Esophagogastroduodenoscopy

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Background

- **Definition**: Bouveret’s syndrome is a rare variant of gallstone ileus characterized by upper GI obstruction from an impacted gallstone in the setting of bilioenteric fistula.
- **Presentation**: Elderly females with nausea, vomiting, and upper abdominal pain.
- **Diagnosis**: Usually made with imaging or endoscopy.
  - Rigler’s triad of gallstone ileus consists of a small bowel obstruction, pneumobilia, and an ectopic radiopaque gallstone on X-ray.
- **Treatment**: Commonly surgical removal, but endoscopic extraction and lithotripsy have been described.

We report a rare case of Bouveret’s syndrome and describe its endoscopic diagnosis and surgical management.

Case Presentation

An 80-year-old-female presents with intractable nausea and vomiting of two days duration associated with mild right upper quadrant pain.

- **CT Scan**:
  - Evidence of a possible cholecystoduodenal fistula with pneumobilia.
  - Possible non-opaque gallstone within the third portion of the duodenum.
  - Upper gastrointestinal obstruction.

- **EGD performed for definitive diagnosis and attempted treatment**:
  - Two liters of bilious fluid and gastric contents were removed from the esophagus and stomach.
  - Second portion of the duodenum had granulated ulceration and pus consistent with cholecystoduodenal fistula.
  - Distal third portion of the duodenum revealed complete lumen obstruction with a mass of black-and-white material composed of gallstones and debris.
  - The entire mass could not be mobilized despite efforts with a needle knife to break the stone.

- **Subsequent exploratory laparotomy allowed surgical removal of a 5.5 x 3.5 x 3.5 cm gallstone from duodenotomy site**.

- **During the surgical procedure the fistula was left intact because it was scarred and not well visualized**.

- **A gastrojejunal tube was placed for tube feedings and she was quickly advanced to a solid diet**.

- **She was discharged home in stable and improved condition a week after surgical intervention, and continues to do well in follow-up**.

Discussion

- French internist Leon Bouveret first described the syndrome in 1896.
- Bouveret’s syndrome is a rare differential diagnosis for upper gastrointestinal obstruction in elderly patients.
- Surgical awareness and possible intervention is warranted in such complicated cases.

In this case we demonstrate the value of endoscopy to diagnose and guide the treatment of Bouveret’s syndrome with non-diagnostic imaging.

References: