

Case	(640) Bouveret syndrome
Authors	C. Pérez-serrano, A. Darnell, D. Corominas, G. Isus, C. Bassaganyas, L. Cornellas.
Centre	Hospital Clínic De Barcelona.

## CASE PRESENTATION

A 83-year-old woman presented to the emergency department with symptoms of incoercible vomiting. The anamnesis included a right colectomy on 2006 and history of cholelithiasis. Routine blood analysis showed leukocytosis ( $13 \times 10^9/L$ ).

Plain abdominal X-ray showed distension of the gastric chamber. Oral water-soluble radiological contrast agent was administered and a filling defect in the third portion of the duodenum was detected. Pneumobilia and contrast-filling of the gallbladder was also present.

Contrast-enhanced computed tomography (CT) of the abdomen revealed a cholecystoduodenal fistula, pneumobilia and a non-calcified gallstone in the third portion of the duodenum, which demonstrated a correlation with the conventional X-ray findings, confirming the imaging diagnosis of Bouveret syndrome.

## DISCUSSION

Gallstone-induced ileus is a rare complication of cholelithiasis, and gastric outlet obstruction is an even rarer variant. Bouveret syndrome is a gastric outlet obstruction produced by a gallstone impacted in the distal stomach or proximal duodenum after migration through a cholecystoduodenal/cholecystogastric fistula (1).

Abdominal radiography is rarely the primary diagnostic tool for Bouveret syndrome, however, it can be suspected when Rigler triad is present (bowel obstruction, pneumobilia, and an ectopic gallstone).

Oral contrast-enhanced imaging of the upper digestive tract may be useful, with visualization of a filling defect, (corresponding to the gallstone) and contrast filling of the orifice of the fistula.

CT and more recently magnetic resonance (MR) cholangiopancreatography are generally used for diagnosis due to their ability to reliably detect the obstructing ectopic gallstone in the distal stomach or the duodenum, and air in the gallbladder or biliary tree (2).

## CONCLUSION

Bouveret syndrome is a rare variant of a relatively rare disease. Prompt identification is critical given its high mortality rate due to the typical patient's advanced age, comorbid conditions and their impact on surgical intervention.



**Figure A.** Conventional X-ray of the abdomen shows pneumobilia (arrowheads). **Figure B.** Oral contrast-enhanced X-ray shows distension of the gastric chamber and contrast-filling of the gallbladder (\*) and a filling defect in the third portion of the duodenum (arrows). **Figures C & D.** Contrast-enhanced CT shows a cholecystoduodenal fistula (\*), pneumobilia (arrowheads) and a non-calcified gallstone in the third portion of the duodenum (arrows).

## BIBLIOGRAPHY

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