# Bouveret Syndrome: A Story of Silent Fistula

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#### Abstract

Gallstone ileus is a rarecause of small bowel obstruction (SBO), representing 1–4% of all SBO. Bouveret's syndrome is a raresubcategory of gallstone ileus where a gallstone lodges itself intothe duodenum and causes gastric outlet obstruction. It constitutes 2–3% of all gallstone related obstructions in the alimentary tract. Here we present a case of 68 year old female, known case ofbipolar disorder and diabetes, presented to ED with complaints of abdominal discomfort and decreased appetite. On investigation, patient was diagnosed with cholecystoduodenal fistula and gall stone ileus, later on operated and discharged in stable condition.

Keywords: Gall Stone Ileus; Small Bowel Obstruction.

### Introduction

Gastric outlet obstruction causedby gallstones was first describedby Léon Bouveret in 1896 [1]. This syndrome is most common in elderly women with a history of biliary disease. The diagnosis of Bouveret's syndrome is usually made with endoscopy, and less often withupper gastrointestinal radiography, CT, or serial radiography [2]. The migration of agallstone on follow-up radiographs can alsobe helpful in making this diagnosis. Gallstone ileus is mainly treated with surgery, either enterolithotomy or gastrostomy, althoughsome cases are treated with endoscopic extraction. Cholecystectomy is not mandatory. The literature contains only a few case reportsof the CT appearance of gallstone ileus. [3].

## **Case Presentation**

Patient brought to ER with abdominal discomfort and decreased appetite.

On examination patient is appearing sick with mild abdominal tenderness is seen with sluggish bowel sounds. After admission patient had an episode of hematemesis, vitally stable. On Examination

Primary Survey

Airway: Patent

Breathing

Respiration (RR/min): 20/MIN

Laboured: No

SpO2: 98% on Room Air

Circulation

Pulse: 82/MIN

BP: 140/70 MMHG Peripheral Pulses: Yes

Disability

GRBS: 329mg/dl (blood gas normal, negative for blood ketones)

Pupils:

Right eye: NSNR Left eye: NSNR Secondary Survey

Review of Systems

HEENT: pallor +, no icterus, cyanosis, tongue

dry

CHEST: B/L AE Equal

CVS: S1S2 +, no added sounds

ABD: Soft, diffuse tenderness +, BS-

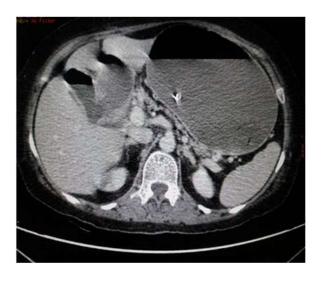
sluggish,

EXT: warm, Peripheral Pulses-palpable Neuro: Conscious, Coherent, Oriented

# On Investigation

Endoscopy showed multiple gastric and duodenal ulcers with no active bleeding.

Contrast enhanced CT abdomen shows cholecystoduodenal fistula, pneumobilia, with gall stone of 5.6 cm in mid jejunum with proximal dilatation and distal collapse of bowel loops.





### **Treatment**

Patient was managed by surgery-enterolithotomy with interval cholecystectomy (planned) with conservative management for upper GI bleed and diabetes. Patient was in ICU after admission till post op fifth day then shifted to ward and discharged.

### Discussion

Bouveret's syndrome is a type of gallstone ileus in which the stone is lodged in the duodenum or the stomach. In 85% of patients with biliaryenteric fistula, the fistula communicates with the duodenum and the stoneswill pass spontaneously without causing bowel obstruction, whereas in 15% of patients, the clinical features of bowel obstruction develop. In descending order offrequency, the gallstone can be lodged in the terminal ileum, proximal ileum, distal jejunum, colon, and duodenum or stomach. Diagnosing Bouveret's syndrome is important because the literature has reported its surgical mortality rate to be as high as 30%. In patients with Bouveret's syndrome caused by a calcified gallstone, radiography will show pneumobilia with the gallstone in the region of the duodenum or stomach. Comparison with an earlier radiograph may show are lative change in the position of the gallstone thus suggesting the location of the stone outside the gallbladder. In the past, Bouveret's syndrome wasmost often diagnosed on the basis of endoscopyand upper gastrointestinal radiography. Now CT, which is increasingly used in emergency

Departments for abdominal pain, willreveal this unusual condition more frequently.

With recent treatment advancements like endoscopic extraction, laser lithotripsy, extracorporeal shock wave lithotripsy etc. stone can be removed with minimally invasive procedures.

#### Conclusion

Compared to historic surgical treatment methods, there is increase in endoscopic treatment success rate. But the final management plan depends on skills of surgical care team, comorbidities and clinical status of patient.

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