

Bouveret Syndrome: A Story of Silent Fistula

Balasubramanyam E. V.¹, Datta K², Rawat A³, Shah V⁴, Gulati V⁵

Author's Affiliation:

¹PGY-2, DNB ²HOD and Associate Director ³Associate Consultant ⁴PGY-2, Secondary DNB ⁵PGY-3, MEM, Dept of Emergency Medicine, Max Super Specialty Hospital, Shalimar Bagh, New Delhi 110088, India.

Corresponding Author:

E.V. Balasubramanyam, PGY-2, DNB, Dept of Emergency Medicine, Max Super Specialty Hospital, Shalimar Bagh, New Delhi 110088, India.

E-mail: subramanyamev@gmail.com

Received on 31.07.2018,

Accepted on 17.09.2018

Abstract

Gallstone ileus is a rare cause of small bowel obstruction (SBO), representing 1–4% of all SBO. Bouveret's syndrome is a rare subcategory of gallstone ileus where a gallstone lodges itself into the 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 of bipolar 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 caused by gallstones was first described by 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 with upper gastrointestinal radiography, CT, or serial radiography [2]. The migration of a gallstone on follow-up radiographs can also be helpful in making this diagnosis. Gallstone ileus is mainly treated with surgery, either enterolithotomy or gastrostomy, although some cases are treated with endoscopic extraction. Cholecystectomy is not mandatory. The literature contains only a few case reports of 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 biliary-enteric fistula, the fistula communicates with the duodenum and the stones will pass spontaneously without causing bowel obstruction, whereas in 15% of patients, the clinical features of bowel obstruction develop. In descending order of frequency, 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 a relative change in the position of the gallstone thus suggesting the location of the stone outside the gallbladder. In the past, Bouveret's syndrome was most often diagnosed on the basis of endoscopy and upper gastrointestinal radiography. Now CT, which is increasingly used in emergency

Departments for abdominal pain, will reveal 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.

References

1. Kalwaniya DS, Arya SV, Guha S, Kuppaswamy M, Chaggar JG, Ralte L, Chejera R, Sharma A,

- A rare presentation of gastric outlet obstruction (GOO) - The Bouveret's syndrome, *Ann Med Surg (Lond)*. 2015 Feb 16;4(1):67-71. doi: 10.1016/j.amsu.2015.02.001. eCollection 2015 Mar.
2. Ariche A1, Czeiger D, Gortzak Y, Shaked G, Shelef I, Levy I, Gastric outlet obstruction by gallstone: Bouveret syndrome, *Scand J Gastroenterol*. 2000 Jul; 35(7):781-3.
 3. Qasimeh GR1, Bakkar S, Jadallah K, Bouveret's Syndrome: An Overlooked Diagnosis. A Case Report and Review of Literature, *Int Surg*. 2014 Nov-Dec; 99(6):819-23. doi: 10.9738/INTSURG-D-14-00087.1.
-