

VIDEO

## Endoscopic treatment for Bouveret syndrome

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### Abstract

**Background** Gallstone ileus is an uncommon cause for small bowel obstruction. Less than 3 % of cases are due to a gallstone impacted in the duodenum or pylorus resulting in a gastric outlet obstruction, described by Bouveret in 1896 [4]. Most of the successful therapeutic maneuvers described involve open surgical removal of the stone through either a gastrotomy or duodenotomy, and reported morbidity is not insignificant [1–3, 5–7]. Endoscopic techniques continue to evolve, allowing for more complex procedures and avoidance of open surgery and its accompanying high morbidity. This video displays a rarely used endoscopic method of relieving gastric outlet obstruction caused by a stone in a patient with Bouveret syndrome.

**Methods** Video of successful endoscopic retrieval of a gallstone lodged in the pylorus is presented. An endoscopic retrieval basket is used, and key maneuvers highlighted include passage of the closed device distal to the stone, opening of the basket, and withdrawal of the stone under direct vision.

**Results** After successful retrieval, endoscopic inspection revealed a normal duodenum and relief of the obstruction. Cholecystectomy was not performed, given that most cholecystoduodenal fistulae are large and will spontaneously close,

especially if a patent cystic duct is present. Liver function tests were normal postoperatively, so no further evaluation of the bile duct was necessary.

**Conclusions** With new advances in technology, the endoscopic approach should be considered as the first line of treatment for cases of Bouveret syndrome because most patients are elderly with multiple comorbidities.

**Keyword** Gallstone ileus · Endoscopy · Bouveret syndrome

**Disclosures** Drs. Jin-cheng Zhao, Ermilo Barrera, Mohammad Salabat, Woody Denham, Dennis Leung, and Michael Ujiki have no conflicts of interest or financial ties to disclose.

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