Use of a Roth Net Platinum Universal Retriever for the endoscopic management of a large symptomatic gallstone causing Bouveret’s syndrome

A 65-year-old woman, who was diagnosed with extravasation portal vein thrombosis, portal bilioatrial, and gallstone disease, presented with multiple episodes of vomiting associated with abdominal pain after meals, with no overt gastrointestinal bleed or jaundice. Physical examination revealed a malnourished, dehydrated female patient with a distended upper abdomen without peritoneal signs. Contrast-enhanced computed tomography (CT) imaging performed immediately after hydration to look for extension of portosystemic thrombus revealed a fistulous communication between the body of the gallbladder and the duodenal bulb (Fig. 1, dotted black arrow). A calculus, measuring 3.7 × 2.2 cm (Fig. 1, black arrow), was seen lodged at the junction of the first and second parts of the duodenum, causing gastric outlet obstruction (Fig. 2, dotted white arrow) suggestive of cholecystoduodenal fistula and Bouveret’s syndrome [1].

Gastroduodenoscopy revealed a large pigmented stone lodged in the duodenal bulb (Fig. 2). The stone was successfully removed endoscopically (Fig. 3) using a Roth Net Platinum Universal Retriever (net size 4 × 5.5 cm, diameter 2.5 mm; US Endoscopy, Mentor, Ohio, USA) (Video 1). Less than 5% of intestinal obstruction is due to gallstone ileus and <4% of those are due to Bouveret’s syndrome, which is most commonly seen in frail women [2]. The Rigler’s triad (small bowel obstruction, pneumobilia, and ectopic gallstone) is pathognomonic for this syndrome [3], but is not seen in 40% cases, even on computed tomography. Surgery (enterolithotomy, gastrostomy with or without cholecystectomy, and fistula repair) is the mainstay of treatment, but in poor surgical candidates such as our patient (elderly, malnutrition, portal hypertension with biliary system collaterals), endoscopic therapies such as net/basket extraction, mechanical, electrohydraulic or intracorporeal laser lithotripsy, or a combination of these, can be used, but the success rate is only 9% [4].

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Ankur Jindal, Cyriac Abby Philips, Kapil Jamwal, Shiv K. Sarin
Department of Hepatology, Institute of Liver and Biliary Sciences, New Delhi, India

References

Bibliography
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Corresponding author
Ankur Jindal, MD
Department of Hepatology
Institute of Liver and Biliary Sciences
D – 1, Vasant Kunj
New Delhi 110070
India
Fax: +91-11-46300010
ankur.jindal3@gmail.com