



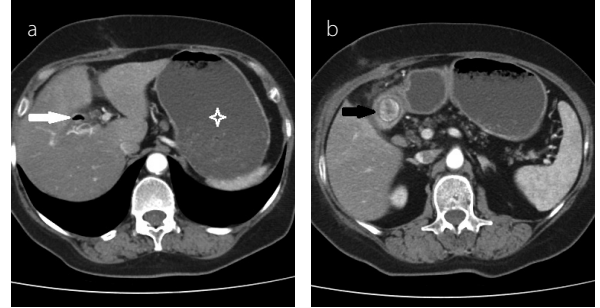
## Endoscopic antegrade cholangiography in a patient with Bouveret's syndrome

To the Editor,

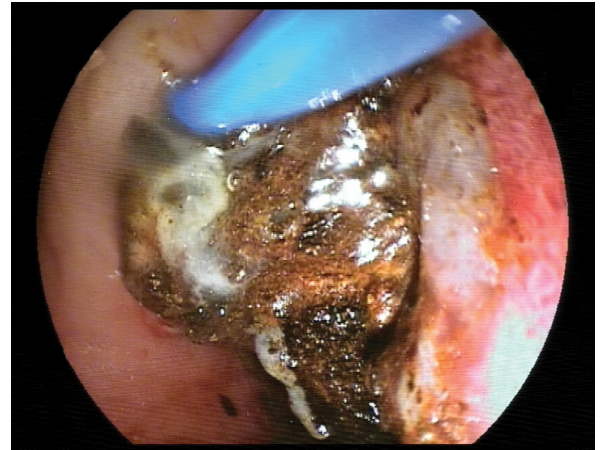
Bouveret's syndrome is the gastric outlet obstruction following a cholecystoduodenal or choledochoduodenal fistula. Endoscopy is the mainstay of diagnosis, but a radiographic examination such as upper gastrointestinal contrast series and abdominal radiography can also contribute to the diagnosis (1). Radiographic features of gallstone ileus are the classical Rigler's triad consisting of pneumobilia, a dilated small bowel, and an ectopic gallstone (2). Available treatment options are endoscopy, open surgery, and laparoscopy. Herein we report a patient with Bouveret's Syndrome who was treated by endoscopy.

A 55-year-old woman was admitted to our hospital because of epigastric pain and vomiting. She underwent open partial cholecystectomy one month ago because of severe inflammation of the gallbladder precluding the safe identification of biliary structures. Computed tomography (CT) of the abdomen showed pneumobilia, gastric retention, and a large, non-calcified solid lesion obstructing the duodenal bulb (Figure 1a, b). A diagnosis of Bouveret's syndrome was suggested. Endoscopy revealed a large gallstone impacted in the duodenal bulb (Figure 2). The stone was captured with a retrieval basket, which was directed into the remnant gallbladder through a cholecystoduodenal fistula, and was withdrawn into the stomach where it was fragmented into small pieces using a handmade bezoarotome. Later, a guidewire was passed through the cholecystoduodenal fistula into the remnant gallbladder and then into the common bile duct via the cystic duct. Antegrade cholangiography revealed a normal common bile duct (Figure 3). The patient was discharged from the hospital without any complaint.

A literature review showed that endoscopic modalities for Bouveret's syndrome, including retrieval, laser, and mechanical lithotripsy, were successful in 9% of patients (3). The insertion of a retrieval basket through a cholecystoduodenal fistula into the gallbladder may increase the success of endoscopy. Further, we revealed a normal common bile duct by antegrade cholangiography in this patient, and we believe that it is seen for the first time in the literature without using endoscopic ultrasound.



**Figure 1. a, b.** Contrast-enhanced axial CT image shows gastric retention (white asterisk), and pneumobilia (white arrow) (a); contrast-enhanced axial CT image shows a large, non-calcified solid lesion obstructing the duodenal bulb (black arrow) (b)



**Figure 2.** Endoscopy revealed a huge gallstone impacted in the duodenal bulb.

Aydın Şeref Köksal<sup>1</sup>, Ahmet Tarık Eminler<sup>1</sup>,  
Ayla Yıldız Savaş<sup>2</sup>, Mustafa İhsan Uslan<sup>1</sup>, Erkan Parlak<sup>1</sup>

<sup>1</sup>Department of Gastroenterology, Sakarya University School of Medicine, Sakarya, Turkey

<sup>2</sup>Department of Gastroenterology, Balıkesir State Hospital, Balıkesir, Turkey

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**Informed Consent:** N/A.

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**Figure 3.** Endoscopic antegrade cholangiography revealed a normal common bile duct.

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**Address for Correspondence:** Ahmet Tarık Eminler

E-mail: [eminler@yahoo.com](mailto:eminler@yahoo.com)

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