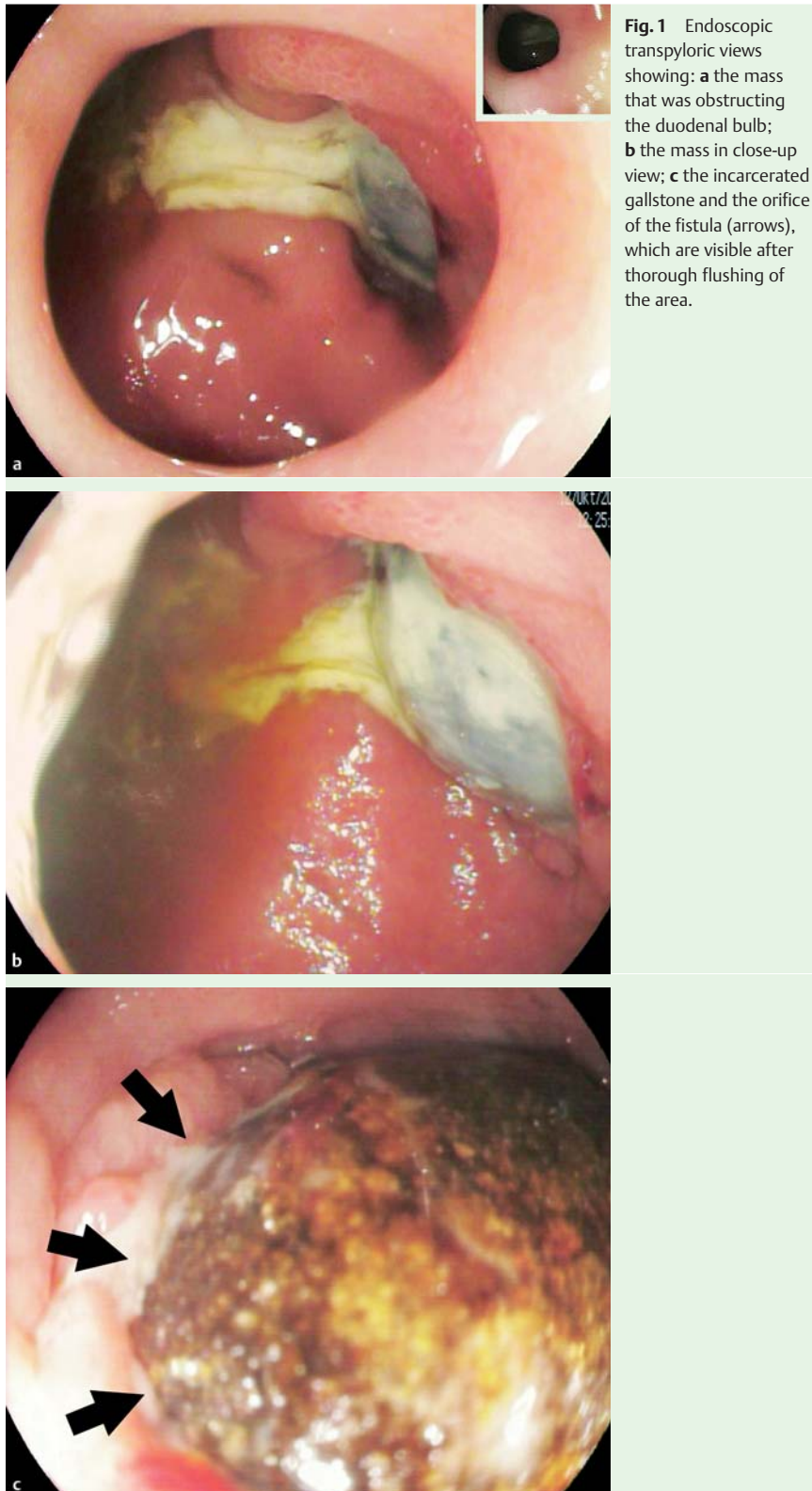


Proximal duodenal obstruction – Bouveret's syndrome revisited



A 62-year-old man presented to our emergency department with acute epigastric pain and vomiting. He was found to have elevated markers of inflammation with a white cell count of $16.1 \times 10^9/L$ and C-reactive protein (CRP) of 30 mg/L (normal <5 mg/L), impaired renal function with a creatinine of 1.8 mg/dL, and evidence of mild cholestasis with a bilirubin of 1.3 mg/dL and γ -glutamyltransferase (GGT) of 78 IU/L.

Esophagogastroduodenoscopy (EGD) showed grade 3 reflux esophagitis, and 3 L of gastric fluid were aspirated. Passage of the endoscope beyond the pylorus was obstructed by a mass covered with creamy pus (● Fig. 1 a, b). After the area had been thoroughly flushed, an incarcerated gallstone was found, which was occluding the duodenal bulb with the orifice of the fistula moving relative to the gallstone (● Fig. 1 c). Endoscopic retrieval (by net, balloon, and snare) failed because of the large diameter of the stone. Computed tomography (CT) scanning revealed an air crescent within the gallbladder and a penetrating gallstone of 3 cm located within the duodenum, which was completely obliterating the lumen (● Fig. 2), but there were no signs of intra-abdominal perforation. During surgery, the penetration of the gallstone through a cholecystoduodenal fistula was confirmed (● Fig. 3). The large stone could only be removed after fragmentation (● Fig. 4). Local excision of the fistula tract was performed and the operation was completed by a cholecystectomy. The patient was discharged from hospital a few days later. On follow-up 3 months later, he had no specific complaints.

Proximal ileus caused by penetration of a large gallbladder stone is a rare clinical entity that was first described in 1896 by Bouveret [1], but has only rarely been reported since [2]. If technically feasible, endoscopic retrieval and spontaneous regression of the fistula tract have been reported [3] and this approach may be appropriate, especially in older patients or those with comorbidities, if close interdisciplinary follow-up is provided. However, surgical removal of the stone is often the more appropriate solution.

Endoscopy_UCTN_Code_CCL_1AB_2AZ_3AZ

Competing interests: None

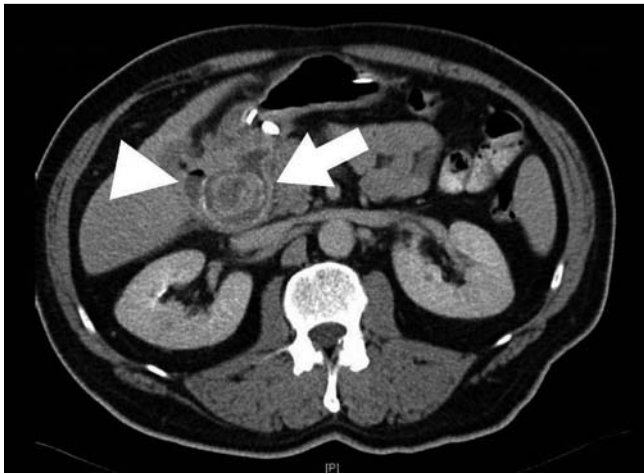


Fig. 2 Computed tomography (CT) scan showing the gallstone that had penetrated into the duodenum (arrow) and an air crescent in the gallbladder (arrowhead).

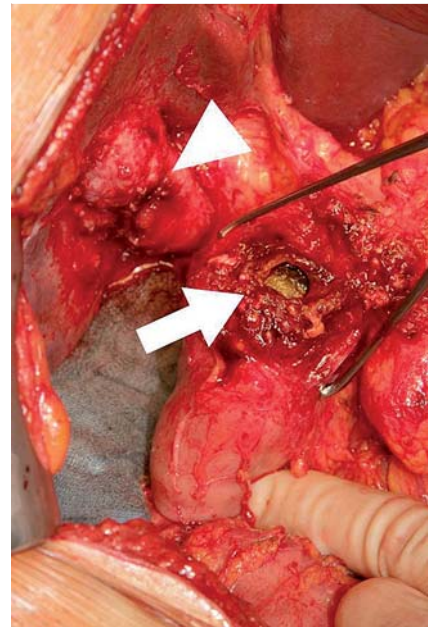


Fig. 3 Photograph taken during surgery showing the cholecystoduodenal fistula with the cystic (arrowhead) and duodenal (arrow) sections visible. The brownish gallstone is also still in situ.



Fig. 4 Photograph of the fragmented gallstone after removal.

**C. R. Werner¹, F. Graepler¹, J. Glatzle²,
D. Stüker², T. Kratt², J. Schmehl³,
M. Bitzer¹, A. Königsrainer²,
N. P. Malek¹, M. Goetz¹**

¹ Department of Gastroenterology, Hepatology, and Infectious diseases, University Hospital Tübingen, Medical Clinic, Tübingen, Germany

² Department of General, Visceral, and Transplant Surgery, University Hospital Tübingen, Tübingen, Germany

³ Department of Diagnostic and Interventional Radiology, University Hospital Tübingen, Tübingen, Germany

References

- 1 Bouveret L. Sténose de pylore adhérent à la vesicule calcusee. Rev Med (Paris) 1896; 16: 1–16
- 2 Cappell MS, Davis M. Characterization of Bouveret's syndrome: a comprehensive review of 128 cases. Am J Gastroenterol 2006; 101: 2139–2146
- 3 Rogart JN, Perkal M, Nagar A. Successful multimodality endoscopic treatment of gastric outlet obstruction caused by an impacted gallstone (Bouveret's syndrome). Diagn Ther Endosc 2008; 2008: 471512

Bibliography

DOI <http://dx.doi.org/10.1055/s-0033-1344324>
Endoscopy 2013; 45: E231–E232
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

Corresponding author

C. R. Werner, MD

University Hospital Tübingen, Medical Clinic
Department of Gastroenterology, Hepatology,
and Infectious diseases
Otfried-Mueller-Str. 10
D-72076 Tübingen
Germany
Fax: +49-7071-295906
christoph.werner@med.uni-tuebingen.de