

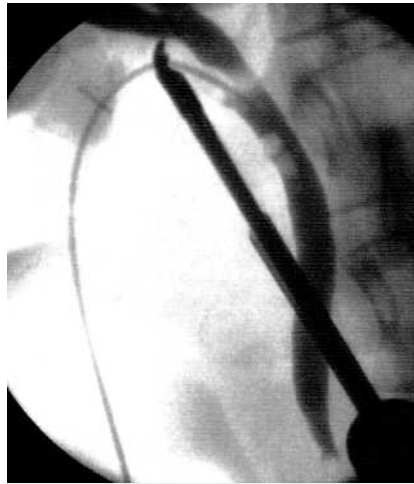
## Intraoperative transgastric ERCP after a Roux-en-Y gastric bypass

Roux-en-Y gastric bypass (RYGB) is among the favorite surgical approaches to treating morbidly obese patients, but leads to an increased incidence of choledocolithiasis. Per-oral endoscopic retrograde cholangiopancreatography (ERCP) represents a major challenge in this situation [1,2]. ERCP through a surgically placed gastrostomy has been proposed as an alternative route for endoscopic access [3–5]. We report a case of endoscopically treated choledocolithiasis via a transgastric approach during laparoscopic cholecystectomy in a RYGB patient.

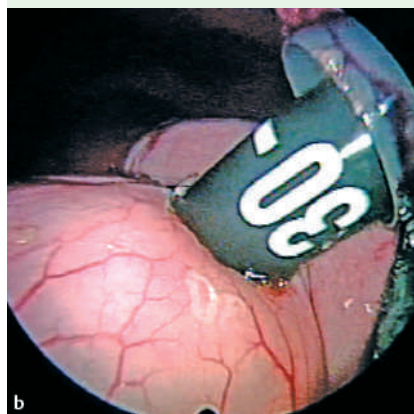
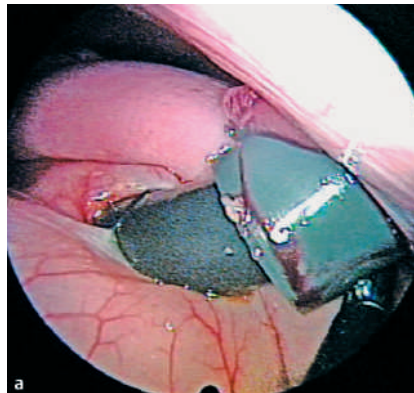
A 30-year-old woman underwent a RYGB procedure. Preoperative ultrasonography identified only hepatic steatosis. At 7 months after surgery and a 38 kg weight loss, abdominal ultrasound was performed because of noncharacteristic abdominal pain. Cholelithiasis was identified, and a laparoscopic cholecystectomy was planned.

Intraoperative cholangiography revealed common bile duct (CBD) stones, and only partial ductal clearance was achieved (• **Figure 1**). A combined laparoscopic-endoscopic approach was attempted. A small gastrotomy with a purse-string suture was performed on the anterior wall. A duodenoscope was introduced through a 15 mm trocar on the upper left quadrant and through the gastrotomy (• **Figure 2a** and **b**). The duodenum was occluded to prevent air passage and small bowel distension. Endoscopic sphincterotomy and stone extraction were carried out according to standard techniques (• **Figure 3** and • **4**). Occlusion cholangiogram confirmed CBD clearance. There was no procedure-related complication, and the patient was discharged on the second post-operative day. The patient is doing well at 8-months' follow up.

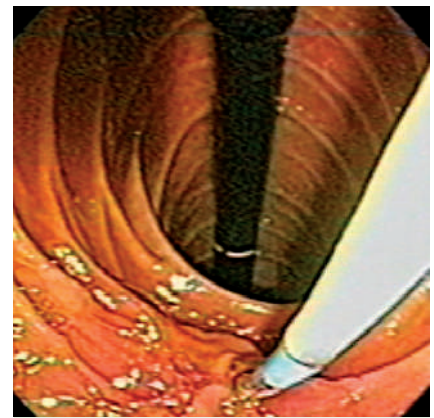
Transgastric laparoscopic-assisted ERCP in the management of cholelithiasis in RYGB patients is technically feasible and apparently not associated with a higher complication rate. Its one-step nature may reduce hospital stay and costs.



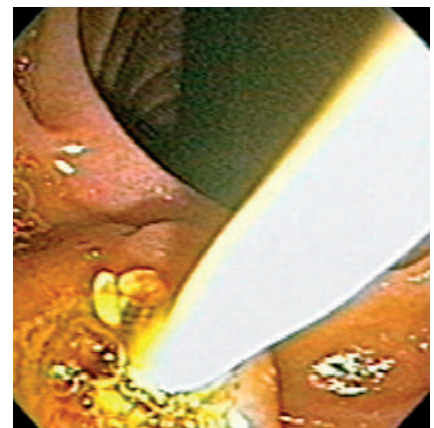
**Figure 1** Intraoperative cholangiography after attempt to remove common bile duct stones.



**Figure 2 a, b** Duodenoscope introduced through a 15 mm trocar placed on the upper left quadrant and through the gastrotomy.



**Figure 3** Duodenoscope and sphincterotome in place, immediately before sphincterotomy.



**Figure 4** Removal of stone fragments with the extractor balloon from the common bile duct.

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## Bibliography

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