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VIDEO SUBMISSION

Management of Acute Gallstone Cholangitis after Roux-en-Y Gastric Bypass with Laparoscopic Transgastric Endoscopic Retrograde Cholangiopancreatography

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Abstract

Background The incidence of biliary lithiasis is increased after bariatric surgery due to rapid weight loss [1]. Trans-oral endoscopic management in cases of common bile duct gallstone complication is not possible in patients with Roux-en-Y gastric bypass (RYGB) due to the modified anatomy. Access to the biliary tree after RYGB with a classical direct surgical approach of common bile duct and choledocoscopy can be used, but may be complicated in situations of acute cholangitis because of the fragility of common duct, or in cases of previous cholecystectomy. Multiple alternatives have been described, such as percutaneous transhepatic cholangiography or laparoscopic transgastric endoscopic retrograde cholangiopancreatography (LTG-ERCP) [2, 3]. The aim of this video was to present the management of common bile duct gallstone complication after RYGB and the technical features of LTG-ERCP [4].

Methods We present the case of a 79-year-old woman (98 kg, BMI 40.2 kg/m^2) with a 24-month history of RYGB, who presented with gallstone cholangitis and septic shock. Imaging revealed a 16-mm dilatation of the common bile duct upstream of a biliary gallstone. A previous history of laparotic cholecystectomy leads us to favor LTG-ERCP.

Results We present the step-by-step LTG-ERCP technique. The laparoscopic procedure started with an excluded stomach dissection and gastrostomy on the great curvature at 10 cm from the pylorus with a 15-mm extra-long port. The placement of the gastrotomy should be carefully chosen with respect to the antrum, in order to provide straightforward access to the pylorus. The transgastric endoscopic procedure should include sphincterotomy (if not formerly performed) and gallstone removal. The patient experienced no specific complication of LTG-ERCP. Control of sepsis was favorable with adapted antibiotic treatment. Hepatic cytolysis and cholestasis normalized within postoperative day 3. Postoperative imaging showed a reduction of the common bile duct diameter to 12 mm. The patient required hemodialysis because of acute kidney injury. She finally left the hospital on postoperative day 16.

Conclusions LTG-ERCP is a safe and feasible alternative for gallstone cholangitis management in patients with RYGB. This procedure should be recommended for cases of cholangitis rather than laparoscopic choledocoscopy or a percutaneous transhepatic approach, especially in cases of prior cholecystectomy, or in patients where the BMI remains high. LTG-ERCP should be performed in a referral center by a skilled endoscopist and surgeon following a standardized technique.

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Keywords Roux-en-Y gastric bypass · Laparoscopic transgastric cholangiopancreatography · Common bile duct gallstone · Cholangitis · Biliary lithiasis

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Statement For this type of study, formal consent is not required.

Informed Consent Statement Informed consent was obtained from all individual participants included in the study.

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