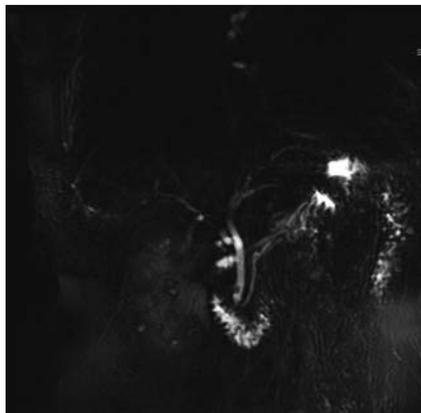


Sterile laparoscopic transgastric ERCP with single-use disposable duodenoscope



► **Fig. 1** Magnetic resonance cholangiopancreatography shows the stone in the common bile duct.

Laparoscopically assisted transgastric endoscopic retrograde cholangiopancreatography (ERCP) is a common interventional procedure in patients with biliary disease and altered anatomy due to Roux-en-Y gastric bypass [1–3]. After access to the stomach, the operation field needs to be widely redraped to proceed with nonsterile ERCP. However, converting from the sterile to a nonsterile setting has become unnecessary with the introduction of single-use disposable duodenoscopes [4,5]. The entire procedure can now be performed in a sterile manner.

A 66-year-old woman with mild hypertension and diabetes presented with a

history of repeated right upper quadrant abdominal pain. She had undergone cholecystectomy 30 years earlier for gallstone with biliary colic. In addition, she had a laparoscopic Roux-en-Y gastric bypass performed 13 years earlier, with successful weight loss and no postoperative complications. Magnetic resonance cholangiopancreatography revealed an 8-mm calculus in the common bile duct (CBD) (► **Fig. 1**).

An elective laparoscopic transgastric ERCP using the single-use/disposable duodenoscope (Exalt Model D; Boston Scientific Corporation, Marlborough, Massachusetts, USA) was planned. The operation was performed with the patient under general anesthesia. Laparoscopically, a 15-mm trocar was placed under the left costal arch and into the bypassed stomach and fixed with sutures (► **Fig. 2**). Seamlessly, the procedure continued in the sterile setting with unpacking of the sterile duodenoscope



► **Fig. 2** A 15-mm trocar was placed under the left costal arch to enter the stomach.



► **Fig. 3** Unpacking the sterile duodenoscope.



► **Fig. 4** The EXALT duodenoscope is inserted through the port and advanced to the duodenum.



► **Video 1** Transgastric endoscopic retrograde cholangiopancreatography performed using the single-use EXALT duodenoscope. The endoscope is introduced through the port, followed by cannulation, sphincterotomy, and stone removal with a balloon catheter.

(► **Fig. 3**). The duodenoscope was introduced through the port (► **Fig. 4**) and advanced to the duodenum. The CBD was cannulated, and the cholangiogram

confirmed the presence in it of a bile stone. A sphincterotomy was performed, and the stone was extracted with a balloon catheter (► **Video 1**). After the

ERCP, the 15-mm port was removed and the gastrotomy sutured. Operative time was less than 1 h. The postoperative course was uneventful, and the patient was discharged after 24 h.

Our case demonstrates a successful transgastric ERCP procedure using the new single-use/disposable duodenoscope, thus introducing the possibility of performing this type of procedure in a completely sterile manner, reducing the risk of contamination and infection. This opens up new prospects in the use of single-use endoscopes, where the sterility of the scopes becomes a substantial asset.

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Competing interests

The authors declare that they have no conflict of interest.

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