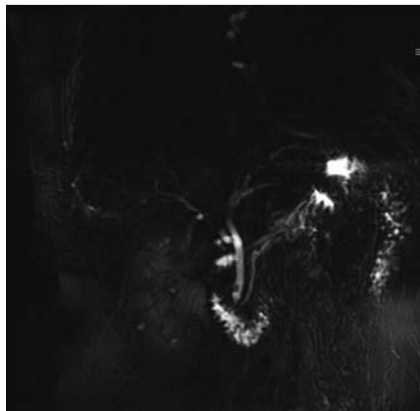


Sterile laparoscopic transgastric ERCP with single-use disposable duodenoscope



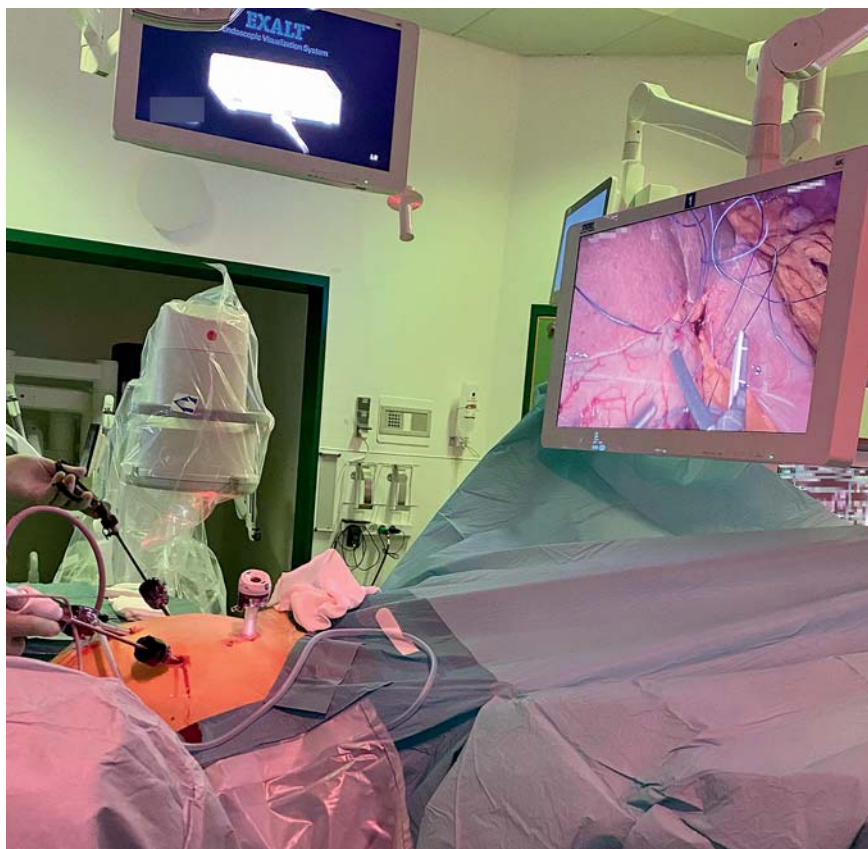
► **Fig. 1** Magnetic resonance cholangiopancreatography shows the stone in the common bile duct.

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.

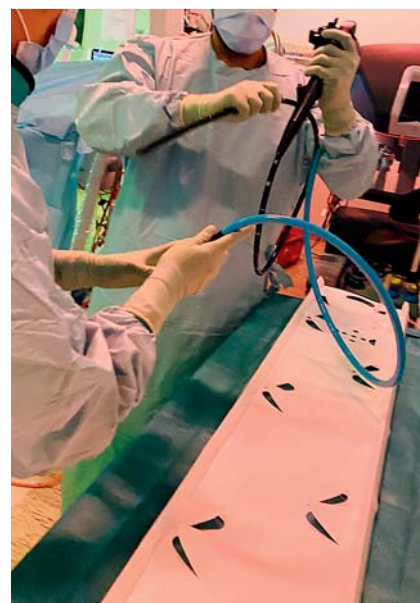
A 66-year-old woman with mild hypertension and diabetes presented with a

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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References

- [1] Tonnesen CJ, Young J, Glomsaker T et al. Laparoscopy-assisted versus balloon enteroscopy-assisted ERCP after Roux-en-Y gastric bypass. *Endoscopy* 2020; 52: 654–661. doi:10.1055/a-1139-9313
- [2] Peters M, Papasavas PK, Caushaj PF et al. Laparoscopic transgastric endoscopic retrograde cholangiopancreatography for benign common bile duct stricture after Roux-en-Y gastric bypass. *Surg Endosc* 2002; 16: 1106. doi:10.1007/s00464-001-4180-3
- [3] Banerjee N, Parepally M, Byrne TK et al. Systematic review of transgastric ERCP in Roux-en-Y gastric bypass patients. *Surg Obes Relat*

Dis 2017; 13: 1236–1242. doi:10.1016/j.soard.2017.02.005

- [4] Muthusamy VR, Bruno MJ, Kozarek RA et al. Clinical evaluation of a single-use duodenoscope for endoscopic retrograde cholangiopancreatography. *Clin Gastroenterol Hepatol* 2020; 18: 2108–2117.e3. doi:10.1016/j.cgh.2019.10.052
- [5] Ross AS, Bruno MJ, Kozarek RA et al. Novel single-use duodenoscope compared with 3 models of reusable duodenoscopes for ERCP: a randomized bench-model comparison. *Gastrointest Endosc* 2020; 91: 396–403. doi:10.1016/j.gie.2019.08.032

Bibliography

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