Gastroenterol Hepatol. 2020;43(10):631–632

Gastroenterología y Hepatología

www.elsevier.es/gastroenterologia

IMAGE OF THE MONTH

Direct cholangioscopy-guided stone extraction

Extracción de piedras guiada por colangioscopia directa

Vincent Zimmer[a,b]

[a] *Department of Medicine, Marienhausklinik St. Josef Kohlhof, Neunkirchen, Germany*
[b] *Department of Medicine II, Saarland University Medical Center, Saarland University, Homburg, Germany*

An 83-year-old female patient was referred for signs of ongoing cholangitis. Medical history was significant for remote cholecystectomy and multiple preceeding endoscopic retrograde cholangiography (ERC) sessions including endoscopic papillotomy performed elsewhere. After institution of broad-spectrum antibiotics, the patient underwent repeat ERC revealing a diffusely dilated biliary system with the common bile duct (CBD) measuring up to 30 mm with multiple stones up to 25 mm. Endoscopic papillary large balloon dilation up to 16 mm was performed and multiple stones could be extracted with or without mechanical lithotripsy and a plastic stent was inserted due to prolonged procedure time.[1]

The patient presented again four weeks later as scheduled for ERC with optional direct cholangioscopy (DC). While during conventional ERC again ample stone material could be extracted, fluoroscopy remained unequivocal due to marked biliary dilation. Therefore, the patient underwent freehand-intubated DC using an ultra-slim upper endoscope (working channel 2.0 mm) in a retroflexed ''*hooking*''

E-mail address: vincent.zimmer@gmx.de

https://doi.org/10.1016/j.gastrohep.2020.01.013

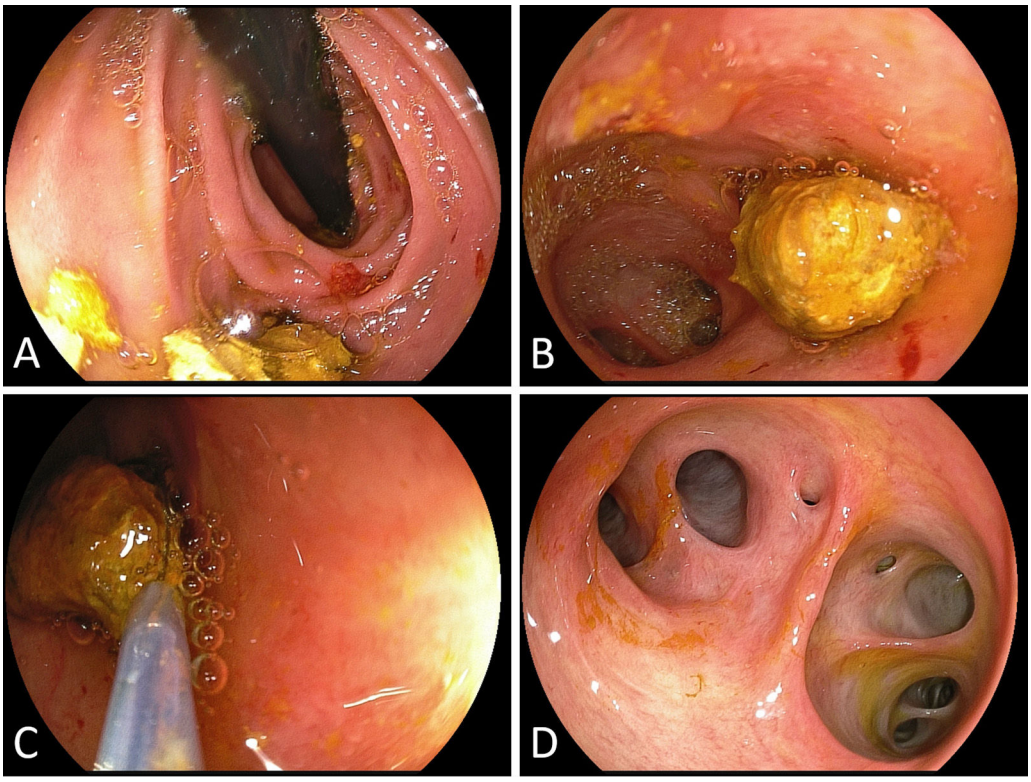

Figure 1 (A) Retroflexed view in the descending duodenum with multiple stones during freehand intubation of the papilla for direct cholangioscopy access using an ultra-slim upper endoscope (''hooking'' technique). (B) An estimated 10-mm residual biliary stone in the middle of a diffusely dilated common bile duct, (C) extracted with a small-sheath (5-Fr; working channel 2.0 mm) Dormia basket. (D) Confirmation of freedom from stones with high-quality assessment of the biliary system up to the hilum and (not shown), in part, intrahepatic ducts.

technique[2] (Fig. 1A). A large remaining stone up to 10 mm could be appreciated (Fig. 1B), subsequently grasped and extracted with a 5-Fr-sheath *Dormia* basket (Fig. 1C). After re-insertion of the repurposed cholangioscope the biliary system could be fully visualized up to the hilum and, in part, beyond excluding further stone material[3] (Fig. 1D).

Conflict of interest

Nothing to declare.

References

1. Aburajab M, Dua K. Endoscopic management of difficult bile duct stones. Curr Gastroenterol Rep. 2018;20:8.
2. Zimmer V. ERC vs. direct cholangioscopy: Dawn of a new reference standard. Dig Liver Dis. 2018;50:199.
3. Zimmer V, Lammert F. Positioning cholangioscopy in bile duct stone management: mind the technology gap. Frontline Gastroenterol. 2018;9:315–6.