VIDEO CASE REPORT

EUS-guided biliary rendezvous as an emergent rescue after failed choledochoduodenostomy using a lumen-apposing metal stent

Albert Garcia-Sumalla, MD,[1] Sergio Bazaga, MD,[1] Joan B. Gornals, MD, PhD[1,2]

A 60-year-old man with pancreatic cancer and liver metastases who had been referred previously for biliary drainage was recommended palliative oncologic treatment. After a failed transpapillary attempt via ERCP, same-session EUS-guided biliary drainage was chosen. On EUS examination, a minimally dilated common bile duct (CBD) up to 9 mm was identified from the duodenal bulb. An EUS-guided choledochoduodenostomy (CDS) using a lumen-apposing metal stent with an electrocautery-enhanced delivery system (EC-LAMS) (8 × 8 mm, HotAxios; Boston Scientific, Marlborough, Mass) was performed from a long-scope position using a free-hand plus preloaded guidewire technique.

The cautery-enabled catheter was advanced less than 1 finger's width at too perpendicular an angle, hitting the opposite CBD wall. The guidewire could not be inserted deeply, making a loop at the level of the CBD's access. Deployment of both flanges appeared to be correct, but an EUS image detected a partial malposition of the internal flange. Attempts at advancing the guidewire in an upward/downward direction (failed rendezvous [RV] approach) were unsuccessful, and the LAMS was removed.

Because the CBD was still dilated, a second attempt at EUS-guided CDS using a smaller EC-LAMS (6 × 8 mm, HotAxios) was made. However, this technically failed because of a considerable amount of bile between the CBD and

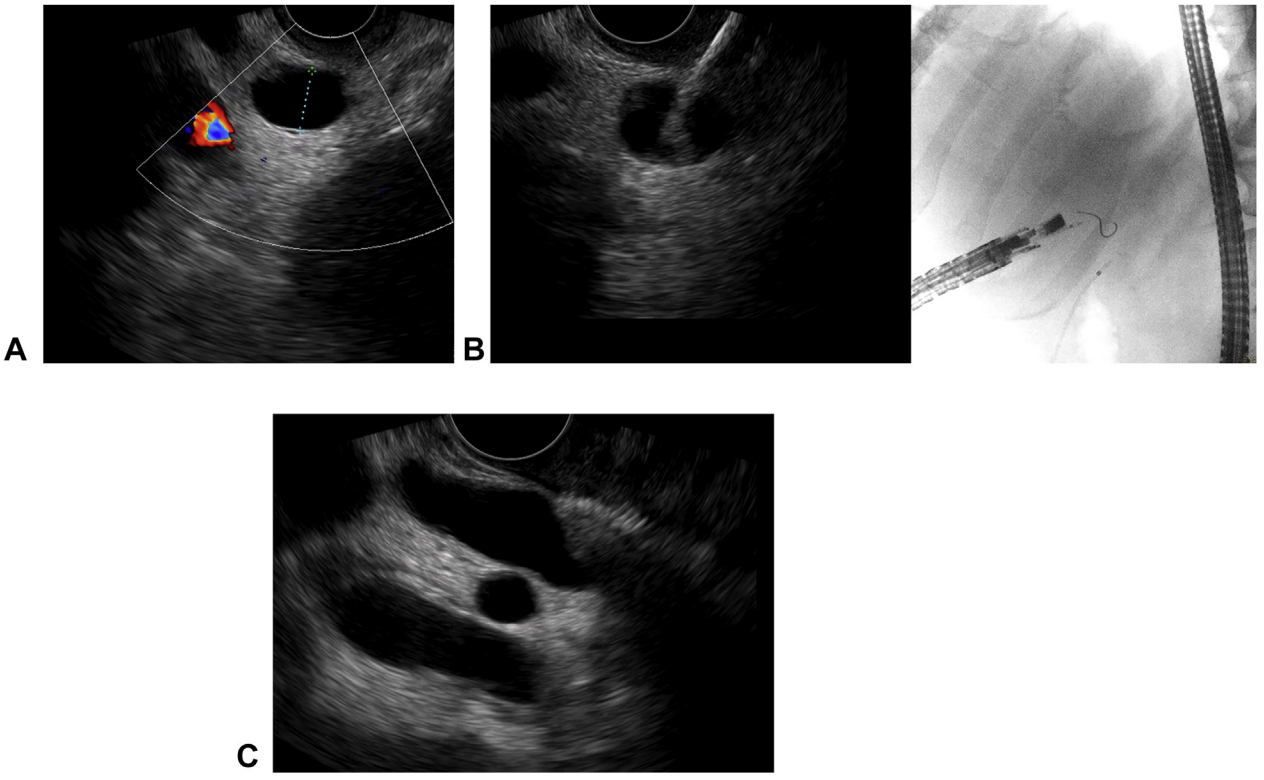

Figure 1. A, Failed EUS-guided choledochoduodenostomy using a lumen-apposing metal stent with an electrocautery-enhanced delivery system (8 × 8 mm, HotAxios) and a free-hand plus preloaded guidewire technique. The common bile duct was barely dilated. **B,** The cautery-enabled catheter was advanced into the common bile duct, but the guidewire could not be inserted deeply. **C,** EUS image detected a partial malposition of the internal flange of the lumen-apposing metal stent.

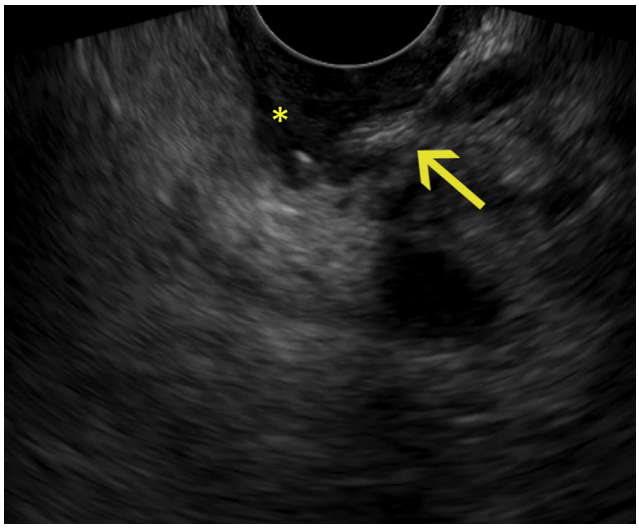

Figure 2. A second attempt at EUS-guided choledochoduodenostomy using a smaller lumen-apposing metal stent with an electrocautery-enhanced delivery system (6 × 8 mm, HotAxios) technically failed because of a considerable amount of bile between the common bile duct and the duodenal wall. Accumulated bile (*asterisk*); dislodged distal flange (*arrow*).

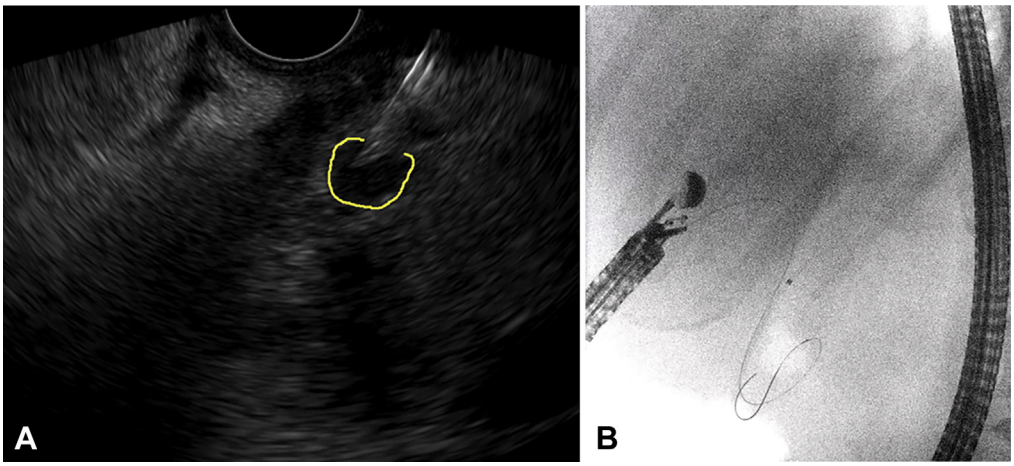

Figure 3. A, EUS-guided rendezvous as an emergent rescue was performed with an EUS-guided puncture of the common bile duct using a 19-gauge, 0.025-inch guidewire. **B,** Successful guidewire insertion across the tumor and papilla.

duodenal wall. An EUS-guided RV as an emergent rescue was performed using a 19-gauge, 0.025-inch guidewire. This maneuver was technically demanding because of the small CBD diameter, but it was possible to advance a guidewire through the papilla until it reached the duodenum. Finally, a fully covered metal stent was inserted, sealing the disruption of the CBD wall (Figs. 1 to 3; Video 1, available online at www.giejournal.org). The patient underwent the procedure well without severe consequences and died 4 months later because of advancement of his illness.

Adverse events after EUS-CDS using EC-LAMS are possible, and a CBD <15 mm has been reported as a risk factor for technical failure.[1-3] Knowledge of endoscopic rescue options (EUS-guided RV, coaxial SEMS) is crucial to resolve potentially serious unplanned events, such as a failed EUS-CDS using a LAMS (Video 1).[4]

DISCLOSURE

Dr Gornals is a consultant and paid speaker for Boston Scientific. All other authors disclosed no financial relationships.

Abbreviations: CBD, common bile duct; CDS, choledochoduodenostomy; EC-LAMS, lumen-apposing metal stent with an electrocautery-enhanced delivery system; RV, rendezvous.

REFERENCES

1. Zulli C, Dumont JL, Cereatti F, et al. Rescue ERCP after delayed migration of a lumen-apposing metal stent following endoscopic ultrasound-guided choledochoduodenostomy. Endoscopy 2020;52:215-6.
2. Mangas-Sanjuan C, Bozhychko M, Martinez J, et al. Endoscopic management of accidental portal vein puncture during endoscopic ultrasound-guided choledochoduodenostomy. Endoscopy 2020;52:47-8.
3. Jacques J, Privat J, Pinard F, et al. Endoscopic ultrasound-guided choledochoduodenostomy with electrocautery-enhanced lumen-apposing stents: a retrospective analysis. Endoscopy 2019;51:540-7.
4. Anderloni A, Fugazza A, Troncone E, et al. Single-stage EUS-guided choledochoduodenostomy using a lumen-apposing metal stent for malignant distal biliary obstruction. Gastrointest Endosc 2019;89:69-76.

Endoscopy Unit, Department of Digestive Diseases, Hospital Universitari de Bellvitge-IDIBELL, University of Barcelona, Catalonia, Spain (1), Faculty of Health Sciences, Universitat Oberta de Catalunya, Barcelona, Catalonia, Spain (2).

https://doi.org/10.1016/j.vgie.2021.03.002

If you would like to chat with an author of this article, you may contact Dr Gornals at jgornals@bellvitgehospital.cat.