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Endoscopic ultrasound-guided gallbladder drainage as a second option of biliary decompression after failed endoscopic retrograde cholangiopancreatography for the management of malignant distal biliary obstruction

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Dear Editor,

Endoscopic ultrasound-guided gallbladder drainage (EUS-GBD) is recommended as a rescue treatment of malignant distal biliary obstruction (MBDO) after failed endoscopic retrograde cholangiopancreatography (ERCP) and EUS-guided biliary drainage (EUS-BD) (1).

Case report

A 64-year-old male was admitted due to painless obstructive jaundice and anemia. For religious reasons, he refused any blood transfusions. Abdominal computed tomography (CT) scan showed a pancreatic tumor with dilation of the biliary tree and liver metastasis. ERCP failed and advanced biliary cannulation techniques such as
precut were avoided due to a high risk of bleeding. The two transmural EUS-BD approaches were avoided, which include EUS-guided choledochoduodenostomy and EUS-guided hepaticogastrostomy, due to smaller targets and the high-risk in this patient (Fig. 1A and B). Since the gallbladder was markedly distended and the cystic duct was patent, a cholecystogastrostomy was performed with a 15 x 10 mm electrocautery lumen-apposing metal stent (EC-LAMS) as a second option of biliary drainage (Fig. 1C and D).

After a week, the serum bilirubin levels decreased to normal values and the patient was uneventfully discharged. At follow-up, he refused to receive chemotherapy and died six months later due to cancer progression.

Discussion
Currently, EUS-GBD has been suggested as a rescue procedure when ERCP or EUS-BD have failed to achieve biliary decompression in patients with inoperable MDBO (2). However, this approach has some drawbacks. EUS-guided choledochoduodenostomy using EC-LAMS has the risk of accidental portal vein puncture, which is a serious complication (3). EUS-guided hepaticogastrostomy is technically more challenging and requires greater experience until it is safe (4). On the other hand, EUS-GBD can be effective in biliary decompression in 85% of patients with MDBO, with few serious adverse events (5). In this case, after a failed ERCP, EUS-GBD was performed instead of other EUS-BD approaches with an optimal clinical result. In conclusion, EUS-GBD was effective and safe as a second option of biliary decompression for MDBO.

References


Fig. 1. Ultrasonographic vision of different targets for biliary decompression. A. Intrahepatic bile duct with a diameter of 4 mm. B. Common bile duct with a diameter of 13 mm. C and D. Markedly distended gallbladder and chosen target for the placement of a lumen-apposing metal stent, which is visualized after deployment of the distal flange.