Concomitant malignant gastric outlet and biliary obstruction is a morbid complication of pancreatic cancer [1]. Double endoscopic bypass with endoscopic ultrasound-guided gastroenterostomy (EUS-GE) and an EUS-guided choledochooduodenostomy or hepatogastros-tomy is a promising but technically challenging modality in gastric outlet and biliary obstruction [2]. The advent of dedicated biliary lumen-apposing metal stents (LAMS) [3] has the potential to greatly facilitate double endoscopic bypass and enhance its adoptability [2].

An 80-year-old woman with stage IV pancreatic cancer presented with gastric outlet and biliary obstruction secondary to tumor progression. An endoscopic retrograde cholangiopancreatography was unsuccessful owing to the inability to reach the papilla. Following informed consent, we proceeded with a double endoscopic bypass (▶ Video 1).

A therapeutic gastroscope was advanced to the level of the obstruction in the duodenum. A 0.035-mm wire was inserted up to the jejunum followed by a 7-Fr nasobiliary drain to the ligament of Treitz (▶ Fig. 1a). Saline combined with contrast and methylene blue was injected into small bowel (400 ml) (▶ Fig. 1b). The echoen-
doscope was then inserted and the dis-
tended small bowel located under endo-
scopic ultrasound (EUS). A 15 × 10-mm lumen-apposing metal stent (LAMS) (Axios; Boston Scientific, Marlborough, Massachusetts, USA) was then inserted directly using cautery assistance and deployed successfully forming the gastro-
enterostomy (▶ Fig. 1c). The echoendo-
scope was then advanced to the bulb of duodenum to locate the dilated common bile duct measuring 12.5 mm in diameter (▶ Fig. 2a). A 6 × 8-mm biliary LAMS was then inserted using cautery assistance and deployed to establish the choledochooduodenostomy (▶ Fig. 2b). The total procedure time was 36 minutes. The patient’s bilirubin decreased as expected.
and her diet advanced. The patient was discharged from hospital 7 days after the double endoscopic bypass.

Double endoscopic bypass is potentially the ideal modality for relieving gastric outlet and biliary obstruction. Our case demonstrates the ease with which this procedure can be performed using LAMS for both obstructions. Larger studies will be needed to ascertain the efficacy and safety of double endoscopic bypass using LAMS in malignant gastric outlet and biliary obstruction.

References


Competing interests

The authors declare that they have no conflict of interest.

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