Endoscopic ultrasonography-guided hepaticogastrostomy (EUS-HGS) and uncovered self-expandable metal stent (SEMS) placement between the right and left intrahepatic bile ducts, called the bridging method, is useful for bilateral drainage in patients with malignant hilar biliary obstruction [1]. Combined EUS-HGS and EUS antegrade stenting is reported to reduce the rate of bile leakage and to prolong stent patency [2]. Access from B2 makes it easier to operate the guidewire downstream of the bile duct than from B3, and the use of a forward-viewing echoendoscope reduces the risk of transesophageal puncture [3].

A 50-year-old man who received chemotherapy for recurrent pancreatic cancer presented with jaundice. Subtotal stomach-preserving pancreaticoduodenectomy was performed with Child’s reconstruction. Contrast-enhanced computed tomography showed multiple liver metastases; one metastatic lesion obstructed the hilar part of the bile duct (▶Fig.1). The bridging method and antegrade stenting using a stent-in-stent technique under EUS guidance were selected. Considering guidewire manipulability, we selected the B2 route; however, use of a curved linear array echoendoscope was associated with a risk of transesophageal puncture. Use of a forward-viewing echoendoscope (TFG-UC260J; Olympus Medical, Tokyo, Japan) enabled us to puncture B2 with a 19-gauge fine-needle aspiration needle (EZ Shot 3 Plus; Olympus Medical). Assisted by an uneven double-lumen cannula (UDC; Piolax Medical, Kanagawa, Japan), we placed two 0.025-inch guidewires (VisiGlide 2; Olympus Medical) into the jejunum and B8 bile duct (▶Fig.2). First, we placed the initial uncovered SEMS (8 × 40 mm, ZEOSTENT V; ZEONMEDICAL, Tokyo, Japan) into the jejunum and B8 bile duct (▶Fig.3). Subsequently, the guidewire was inserted into the jejunum through the mesh of the initial SEMS, then the second uncovered SEMS (8 × 60 mm, ZEOSTENT V; ZEONMEDICAL, Tokyo, Japan) was placed as antegrade stenting using the stent-in-stent technique (▶Fig.4). Finally, a 7-Fr plastic stent (TYPE-IT; Gadelius Medical, Tokyo, Japan) was placed across the EUS-HGS fistula (▶Video 1). There were no adverse events and jaundice improved immediately.

Endoscopy_UCTN_Code_TTT_1AS_2AD

▶ Fig. 1 Contrast-enhanced computed tomography showed that multiple liver metastases invaded the hilar part of bile duct (arrowheads).

▶ Fig. 2 Assisted by the double-lumen cannula, two 0.025-inch guidewires were inserted into the jejunum from the tip lumen and into the B8 bile duct from the side lumen.

▶ Fig. 3 An uncovered self-expandable metal stent (SEMS) was placed bridging from the right to left intrahepatic bile ducts.
Ryosuke Sato, Kazuyuki Matsumoto, Hiroyuki Terasawa, Yuki Fujii, Tatsuhiro Yamazaki, Shigeru Horiguchi, Hironari Kato
Department of Gastroenterology and Hepatology, Okayama University Hospital, Okayama, Japan

Corresponding author
Kazuyuki Matsumoto, MD, PhD
Department of Gastroenterology and Hepatology, Okayama University Hospital, Okayama, Japan
matsumoto.k@okayama-u.ac.jp

Competing interests
The authors declare that they have no conflict of interest.

References

ENDOSCOPY E-VIDEOS
https://eref.thieme.de/e-videos

Endoscopy E-Videos is an open access online section, reporting on interesting cases and new techniques in gastroenterological endoscopy. All papers include a high quality video and all contributions are freely accessible online. Processing charges apply (currently EUR 375), discounts and waivers acc. to HINARI are available.

This section has its own submission website at https://mc.manuscriptcentral.com/e-videos

ENDOSCOPY | © 2022. The Author(s).

Sato Ryosuke et al. Endoscopic ultrasonography-guided bilateral... Endoscopy | © 2022. The Author(s).