A 75-year-old woman was admitted to our hospital with obstructive jaundice. Abdominal computed tomography revealed a hypovascular mass in the head of the pancreas, dilatation of the bile ducts, and tumor invasion into the second portion of the duodenum (Fig. 1). Small nodules were also observed in the omentum, and a diagnosis of pancreatic cancer with peritonitis carcinomatosa was made. After percutaneous transhepatic biliary drainage (PTBD) was performed to relieve the jaundice, a duodenal self-expandable metallic stent was deployed in the duodenal stricture (Fig. 2, 3). Informed consent was obtained, and then a convex linear-array echo endoscope (GF-UCT2000; Olympus Co. Ltd., Tokyo, Japan) was used to puncture the dilated extrahepatic bile duct at the level of the duodenal bulb with an Olympus KD-10Q-1 needle-knife, using an electrosurgical generator (ICC200; ERBE, Tübingen, Germany). After the needle-knife was removed from the catheter, a guide wire was introduced into the bile duct under fluoroscopic guidance, and the catheter was removed. A 7-Fr biliary plastic stent (Flexima; Cook Endoscopy, Winston-Salem, North Carolina, USA) was then inserted into the left hepatic bile duct (Fig. 4). Once this procedure was complete, the PTBD catheter was removed (Fig. 5).

Endoscopic ultrasound-guided biliary drainage from the duodenal bulb has been reported recently [1–3]. If a patient has both a distal biliary stricture and a duodenal stricture around the major papilla, a biliary metallic stent can be deployed via the PTBD route. However, and particularly in patients with peritonitis carcinomatosa, recurrent cholangitis can occur because duodenal contents can reflux into the bile duct when a biliary metallic stent is deployed beyond the major papilla [4]. As a result, patients can require external biliary drainage. We suggest that endoscopic ultrasound-guided choledochoduodenostomy can be an effective treatment for patients who have a duodenal stent over the major papilla and peritonitis carcinomatosa.

Combined endoscopic ultrasound-guided choledochoduodenostomy and duodenal stent placement in a patient with pancreatic cancer

**Fig. 1** Abdominal computed tomography showed a hypovascular mass in the head of the pancreas, with tumor invasion into the second portion of the duodenum.

**Fig. 2** Endoscopic examination also showed tumor invasion into the second portion of the duodenum.

**Fig. 3** A duodenal self-expandable metallic stent was deployed in the duodenal stricture.

**Fig. 4** A biliary plastic stent was then inserted through the choledochoduodenostomy into the left hepatic bile duct.

**Fig. 5** One week after insertion, endoscopic examination showed that there was effective biliary drainage via the biliary plastic stent.

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Bibliography
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