Rescue endoscopic therapy after malfunctioning choledochoduodenostomy in patient with malignant distal biliary obstruction

Endoscopic ultrasound-guided choledochoduodenostomy (EUS-CD) using a lumen-apposing metal stent (LAMS) has recently been reported as an alternative approach after failure of endoscopic retrograde cholangiopancreatography (ERCP) in patients with malignant obstructive jaundice [1].

Here, we report the case of an 83-year-old man affected by obstructive jaundice (total bilirubin 25 mg/dL, predominantly direct) due to advanced pancreatic head cancer with gallbladder in situ. He underwent ERCP; however, it was not possible to cannulate the common bile duct (CBD) because of serrated stenosis, and therefore EUS-CD was performed.

From the duodenal bulb view, the CBD had a diameter of about 20 mm above the pancreatic mass, and no interposing vessels on Doppler flow were present. An 8×8 mm LAMS (Hot Axios; Boston Scientific, Marlborough, Massachusetts, USA) was directly deployed, creating an EUS-CD with initial good biliary drainage into the duodenum.

A computed tomography scan confirmed the correct positioning of the stent, which, together with subsequent decompression of the CBD, resulted in improvement in cholestasis parameters. Nevertheless, 2 days later, obstructive jaundice worsened.

Cholangiography with sphincterotome through the LAMS revealed CBD decompression and the LAMS distal flange located close to the contralateral CBD wall, hampering biliary drainage. A 10×40 mm uncovered self-expandable metal stent (SEMS; Wallflex; Boston Scientific) was placed inside the LAMS with its proximal edge in the common hepatic duct, restoring a functional axis, and allowing biliary drainage (► Fig. 1, ► Video 1).

The patient remained in a satisfactory clinical condition with progressive resolution of obstructive jaundice and was referred for outpatient oncologic treatment. After 4 weeks of follow-up, labora-

► **Fig. 1** Fluoroscopic image showing complete biliary drainage after self-expandable metal stent placement inside the lumen-apposing metal stent.

► **Video 1** Rescue endoscopic therapy – self-expandable metal stent placement inside the lumen-apposing metal stent – after malfunctioning choledochoduodenostomy in a patient with malignant distal biliary obstruction.

tory tests revealed that total bilirubin levels had returned to normal (1.2 mg/dL). In conclusion, the “SEMS in LAMS technique” can be considered as rescue therapy after malfunctioning EUS-CD. Placement of the uncovered SEMS within the

LAMS restored the functional axis, thus avoiding both risk of stent misplacement and cholecystitis.

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Competing interests

None

The authors

Mauro Manno, Sara Vavassori, Simona Deiana, Laura Ottaviani, Tommaso Gabbani, Paola Soriani

Gastroenterology and Digestive Endoscopy Unit, Azienda USL Modena, Modena, Italy

Corresponding author

Mauro Manno, MD

Gastroenterology and Digestive Endoscopy Unit, Azienda USL Modena, Via G. Molinari 2, 41120 Carpi, Modena, Italy
Fax: +39-059-650250
m.manno@ausl.mo.it

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