

Endoscopic ultrasound-guided cholecystogastrostomy as an alternative biliary drainage route in malignant obstructions



▶ **Video 1** Endoscopic ultrasound-guided cholecystogastrostomy as an alternative biliary drainage route in a patient with malignant obstruction.



▶ **Fig. 2** Endoscopic view showing the lumen-apposing metal stent and the duodenal self-expandable metal stent.



▶ **Fig. 1** Endoscopic ultrasound view showing deployment of a lumen-apposing metal stent in the gallbladder.

Malignant biliary obstruction is a common complication of pancreatic adenocarcinoma, cholangioadenocarcinoma, and other tumors. Biliary drainage is necessary for the management of jaundice, cholangitis, and other debilitating symptoms, such as abdominal pain. Because endoscopic retrograde cholangiopancreatography (ERCP) drainage is not al-

ways feasible (owing to severe invasion of the bile duct and/or duodenal wall), endoscopic ultrasound-guided biliary drainage (EUS-BD) has appeared as a promising alternative [1,2]. EUS-BD has the advantage of allowing different access routes, depending on the biliary anatomy and the level of the tumor obstruction [3,4].

An 87-year-old woman was diagnosed with ductal pancreatic adenocarcinoma associated with gastric, duodenal, and celiac trunk invasion. While undergoing palliative treatment, she had undergone placement of a biliary self-expandable metal stent (SEMS) 7 months previously. The patient was referred for a new endoscopic biliary drainage procedure because of obstruction of the previous biliary stent and worsening of her clinical condition, associated with jaundice, chills, and several episodes of fever. An ERCP approach was attempted but, owing to the severe tumor invasion of the duodenum, the ampullary region could not be accessed endoscopically. As an alternative, an EUS-guided cholecystogastrostomy was performed through a transgastric approach using an electrocautery-enhanced lumen-apposing metal stent (EC-LAMS; Hot Axios; 10×10 mm; Boston Scientific, Marlborough, Massachusetts, USA) in the same procedure (▶ **Video 1**; ▶ **Fig. 1**). In addition, a duodenal SEMS was placed to prevent further obstruction of the gastrointestinal flow in future (▶ **Fig. 2**). Following this procedure, the patient showed clinical and laboratory improvement, with resolution of her infective symptoms.

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Competing interests

The authors declare that they have no conflict of interest.

The authors

Marco A. D'Assuncao, Fernando P. Marson, Saverio T. N. Armellini, Fernando L. Mota, Fernando J. S. de Oliveira, Eduardo M. A. Pereira Junior

Department of Digestive Endoscopy, Hospital Sírio-Libanês, São Paulo, Brazil

Corresponding author

Fernando Pavinato Marson, MD

Department of Digestive Endoscopy,
Hospital Sírio-Libanês, Rua Dona Adma Jafet,
91, São Paulo, Brazil
marsonfp@gmail.com

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