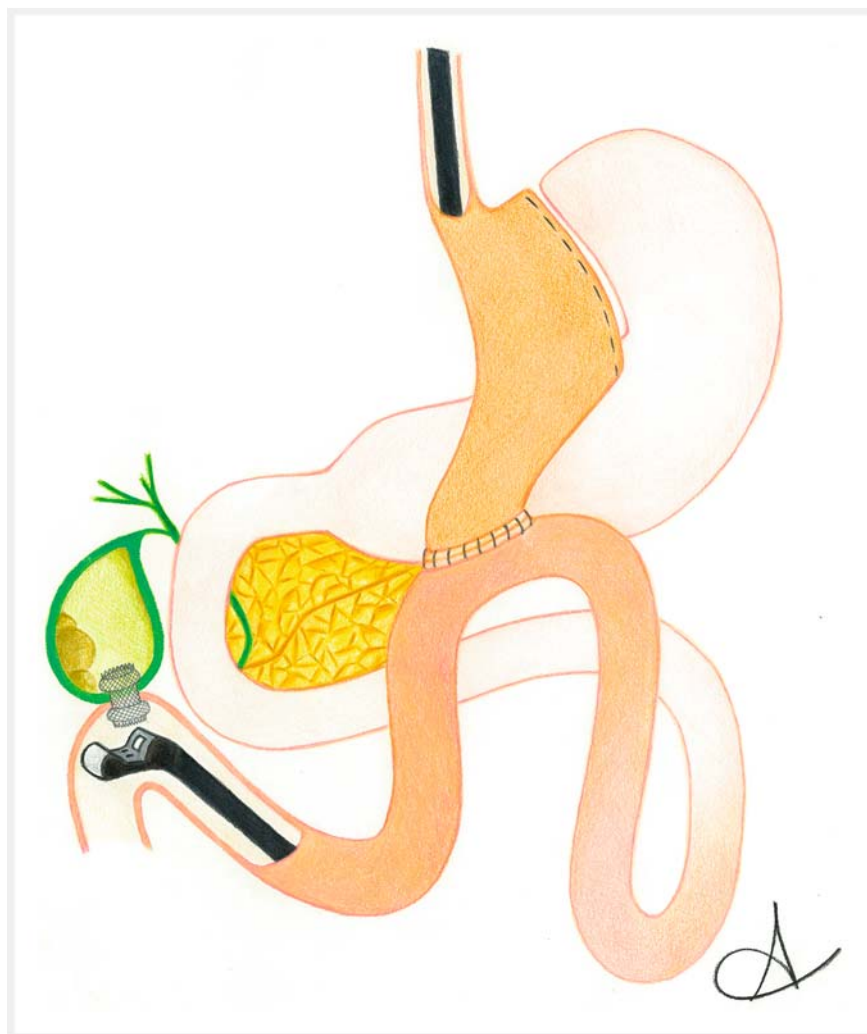


## Endoscopic ultrasound-guided gallbladder drainage by transjejunal lumen-apposing metal stent placement in a patient with mini-gastric bypass



► **Fig. 1** Computed tomography showing a distended gallbladder adherent to the jejunal loop.

Endoscopic ultrasound-guided gallbladder drainage (EUS-GBD) using lumen-apposing electrocautery-enhanced metal stent (EC-LAMS) is a safe and effective treatment option in patients with acute cholecystitis who are unfit for surgery [1]. We present the case of a 64-year-old woman who presented to the emergency department with a grade III cholecystitis [2] (► **Fig. 1**). The patient had dilated cardiomyopathy with an implanted cardioverter-defibrillator, decompensated type II diabetes, and had undergone mini-gastric bypass surgery for obesity control 10 years ago. She was deemed unfit for surgery at this time and endoscopic drainage was proposed [3] (► **Video 1**). EUS revealed an over-distended gallbladder attached to the efferent loop of the gastrojejunal anastomosis. EUS-GBD was therefore performed by transmural placement of an EC-LAMS (Hot Axios, 10×10 mm; Boston Scientific, Marlborough, Massachusetts, USA) (► **Fig. 2**), allowing the release of a significant amount of purulent bile from the gallbladder into the jejunal efferent loop (► **Video 1**). After the procedure, the patient's general status progressively improved (► **Fig. 3**); however, 2 weeks after the procedure, fever persisted and a second endoscopic procedure was planned. Using a duodenoscope, the efferent limb was reached and the LAMS was still in



► **Fig. 2** Graphical representation of transjejunal endoscopic ultrasound-guided gallbladder drainage in a patient with a mini-gastric bypass.

place draining purulent bile; however, the stent lumen was partially clogged by biliary debris. Under endoscopic guidance, a stone extraction balloon catheter was placed into the stent and the debris was removed. A 7-Fr nasogallbladder drainage tube was then placed through the stent (► **Fig. 4**).

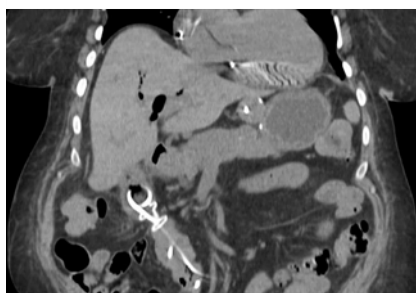
In the following days, the fever resolved and inflammatory markers returned to normal levels. The nasogallbladder drainage tube was removed and the patient

was discharged home. At 3-month follow-up, the patient remained asymptomatic with improvement in general status, allowing surgery to proceed. The EC-LAMS was removed using a gastroscope and snare without complications, and an elective cholecystectomy was planned.

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► **Fig. 3** Computed tomography demonstrating the correct positioning of the electrocautery-enhanced lumen-apposing metal stent between the jejunal efferent loop and the gallbladder lumen.



► **Fig. 4** Computed tomography documenting nasogallbladder drainage tube placed through the metal stent into the gallbladder lumen.



► **Video 1** Endoscopic ultrasound-guided gallbladder drainage by transjejunal placement of a lumen-apposing metal stent.



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## Competing interests

The authors declare that they have no conflict of interest.

## The authors

**Annalisa Cappello<sup>1</sup>, Alessia Santini<sup>2</sup>, Ivano Biviano<sup>2</sup>, Elena Gianni<sup>1</sup>, Natalia Simonetti<sup>1</sup>, Sandro Giannotti<sup>1</sup>, Raffaele Macchiarelli<sup>2</sup>**

<sup>1</sup> Gastroenterology Unit, A.O.U.S. Policlinico S. Maria alle Scotte, Siena, Italy

<sup>2</sup> Biliopancreatic Unit, A.O.U.S. Policlinico S. Maria alle Scotte, Siena, Italy

## Corresponding author

**Annalisa Cappello, MD**

Gastroenterology Unit, A.O.U.S. Policlinico S. Maria alle Scotte, Viale Bracci, 53100, Siena, Italy  
[annalisacappello@yahoo.it](mailto:annalisacappello@yahoo.it)