

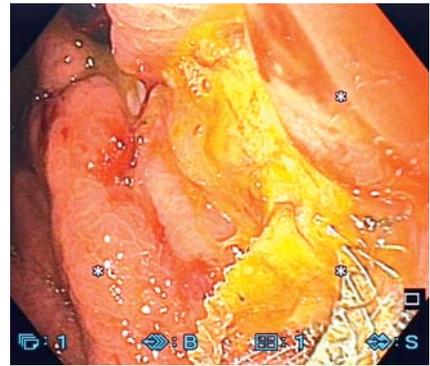
## Endoscopic ultrasound-guided drainage of a post-hepatectomy abscess using a lumen-apposing self-expandable metal stent with electrocautery-enhanced delivery system



**Fig. 1** Cross-sectional computed tomography image of the abscess (arrow) located between the remnant liver and the stomach.



**Fig. 2** Endoscopic ultrasound (EUS) view of the distal flange of the lumen-apposing self-expandable metal stent (arrow) that was deployed completely under EUS guidance.



**Fig. 3** Endoscopic view of the stent with drainage of pus.

### Video 1

- EUS-guided drainage was offered to the patient who signed the informed consent
- Using a therapeutic linear echoendoscope the 7cm collection was easily localized and the presence of interposing vessels excluded with Doppler

Endoscopic ultrasound-guided drainage using a lumen-apposing fully covered self-expandable metal stent for treatment of an intra-abdominal abscess that developed after laparoscopic hepatectomy.

Endoscopic ultrasound (EUS)-guided drainage of pancreatic fluid collections and of the gallbladder and bile duct after failure of standard procedures is becoming an attractive minimally invasive alternative to percutaneous drainage [1–3]. These procedures have been facilitated by the development of a specifically designed lumen-apposing self-expandable metal stent (LA-SEMS) and electrocautery-enhanced delivery system (Hot Axios; Boston Scientific Corp., Marlborough, Massachusetts, USA), which allows the procedure to be performed in one step, mostly under EUS guidance without fluoroscopy [4]. We report on a patient in whom drainage of an abdominal abscess that developed after laparoscopic hepatectomy was performed using the LA-SEMS, thus sparing him from percutaneous drainage and/or repeat surgery.

A 70-year-old man with alcohol-related liver cirrhosis underwent left hepatec-

tomy as treatment for recurrent hepatocellular carcinoma. A month later, he developed persistent abdominal pain with fever. An abdominal computed tomography scan revealed an abscess located between the remnant right liver lobe and the stomach (Fig. 1). EUS-guided drainage was offered to the patient and he signed an informed consent form. Using a therapeutic linear echoendoscope, the 7-cm collection was located and the presence of interposing vessels was excluded using Doppler. Direct transgastric penetration into the collection using the Hot Axios device was accomplished by applying pure cut cautery, and was followed by EUS-guided deployment of a 10×10-mm LA-SEMS (Fig. 2, Video 1), with drainage of purulent material (Fig. 3, Video 1). No complications occurred. The patient was discharged completely asymptotically the following day.

Removal of the stent was performed 4 weeks later, and complete resolution of the abscess was observed.

Intra-abdominal abscess formation after laparoscopic hepatectomy has been reported to occur in up to 10% of cases [5]. The case presented shows that this novel LA-SEMS is safe, easy to use, and highly effective, and should be considered when intra-abdominal abscesses accessible to EUS are detected.

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**Competing interests:** Dr. Larghi is a consultant for Boston Scientific Corp.

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