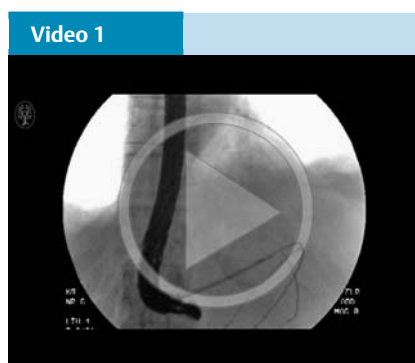


Endoscopic ultrasound-guided drainage of a pancreatic fluid collection using a novel lumen-apposing metal stent complicated by stent occlusion

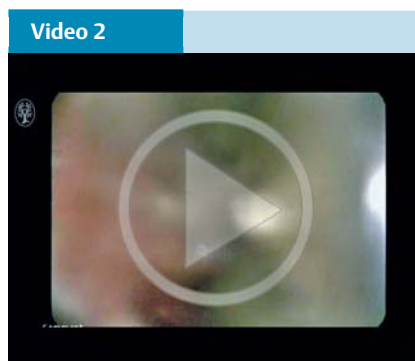
Endoscopic ultrasound (EUS)-guided transenteric drainage of pancreatic fluid collections (PFCs) is a well-established procedure. Recently a novel lumen-apposing, fully covered self-expanding metal stent (SEMS) has been developed to overcome the limitations of conventional SEMS for EUS-guided transenteric interventions [1–3].

A 71-year-old woman with jaundice due to a pancreatic head adenocarcinoma was treated by endoscopic retrograde cholangiopancreatography (ERCP) and placement of a fully covered self-expanding metal stent (FCSEMS). The patient developed moderately severe acute pancreatitis, complicated by a 12-cm necrotic infected fluid collection in the pancreatic body, which was not controlled by antibiotic therapy and intravenous hydration. EUS-guided drainage was performed using a 10-Fr cystotome, followed by placement of a 0.035-inch guidewire, with a lumen-apposing FCSEMS (Niti-S-SPAXUS, Taewoong Corp., Seoul, South Korea; diameter 16 mm, length 20 mm) then passed over the guidewire and deployed under fluoroscopic and endoscopic control (▶ **Video 1**). The patient's symptoms resolved within 24 hours and she was discharged 3 days later. After 2 weeks, the patient underwent a computed tomography (CT) scan because of recurrence of her fever, which showed incomplete resolution of the PFC with air inside it. A gastroscopy was performed, which showed necrotic tissue occluding the stent. Endoscopic necrosectomy was performed using different devices and forced irrigation with saline (▶ **Video 2**). Complete cleaning of the cavity was achieved. A further CT scan performed after 2 months showed complete resolution of the collection.

EUS-guided drainage of PFCs using this new lumen-apposing FCSEMS is technically feasible. In this case the clinical success of drainage was limited by early stent occlusion due to impacted necrotic tissue, which led to the patient requiring a second hospital admission and further treatment. Fortunately the large stent diameter



The pancreatic fluid collection was punctured under endoscopic ultrasound (EUS) guidance using a 10-Fr cystotome, followed by placement of a 0.035-inch guidewire. The cystotome was removed and a fully covered self-expanding metal stent (FCSEMS) was passed over the guidewire, and positioned and deployed under fluoroscopic and endoscopic guidance.



A gastroscopy was advanced into the cavity of the pancreatic fluid collection, and necrotic tissue was removed using a basket. Irrigation was carried out using physiologic saline solution.

allowed necrosectomy to be performed and the anchoring flanges prevented stent dislodgement during the procedure. Further data are needed to evaluate the possible role of a nasocystic tube in preventing stent occlusion, as has been reported for other models of lumen-apposing FCSEMS [4,5], in patients with a complicated PFC.

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Competing interests: None

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References

- 1 Park DH, Lee SS, Moon SH et al. Endoscopic ultrasound-guided versus conventional transmural drainage for pancreatic pseudocysts: a prospective randomized trial. *Endoscopy* 2009; 41: 842–848
- 2 Moon JH, Choi HJ, Kim DC et al. A newly designed fully covered metal stent for lumen apposition in EUS-guided drainage and access: a feasibility study (with videos). *Gastrointestinal Endosc* 2014; 79: 990–995
- 3 Itoi T, Itokawa F, Uraoka T et al. Novel EUS-guided gastrojejunostomy technique using a new double-balloon enteric tube and lumen-apposing metal stent (with videos). *Gastrointestinal Endosc* 2013; 78: 934–939
- 4 Rinninella E, Kunda R, Dollhopf M et al. EUS-guided drainage of pancreatic fluid collections using a novel lumen-apposing metal stent on an electrocautery-enhanced delivery system: a large retrospective study (with video). *Gastrointest Endosc* 2015; 82: 1039–1046
- 5 Shah RJ, Shah JN, Waxman I et al. Safety and efficacy of endoscopic ultrasound-guided drainage of pancreatic fluid collections with lumen-apposing covered self-expanding metal stents. *Clin Gastroenterol Hepatol* 2015; 13: 747–752

Bibliography

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