

## Endoscopic retrieval of a lumen-apposing metal stent complicated by inward migration after cystogastrostomy

Endoscopic ultrasound (EUS)-guided drainage is well known as an established technique for the treatment of pancreatic pseudocysts [1, 2]. New covered metal

stents, known as lumen-apposing metal stents (LAMS), have been designed. Despite their superior antimigration features, these LAMS can migrate inwardly

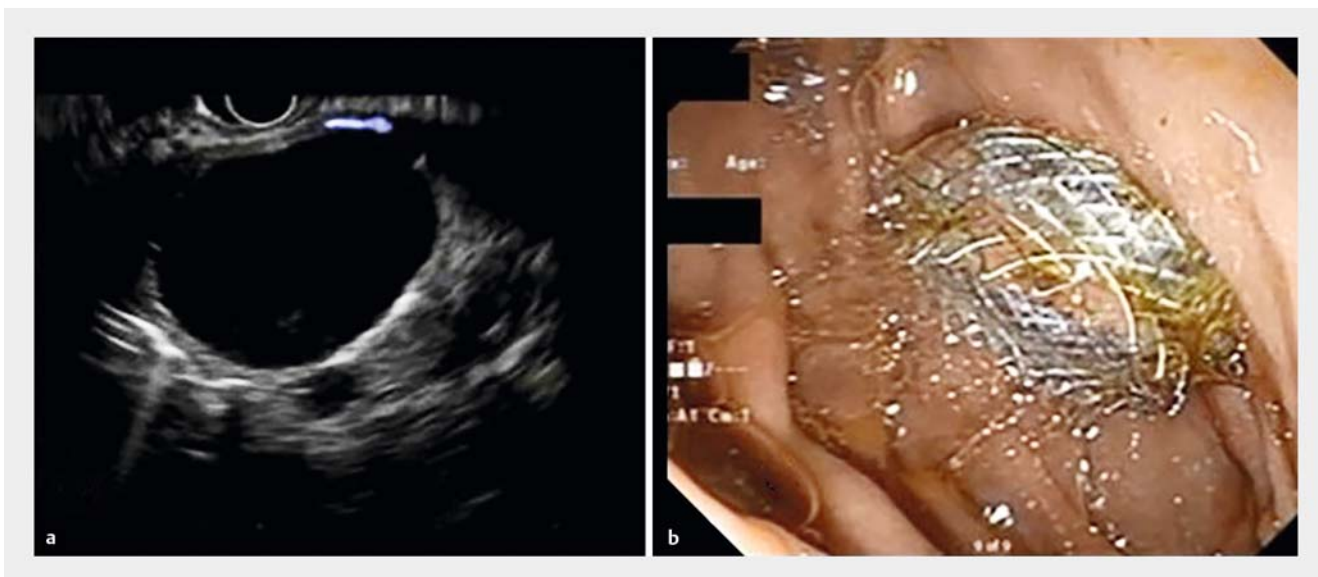
[3, 4]. We report a case of successful endoscopic retrieval of a LAMS with inward migration after cystogastrostomy.

A 50-year-old man with a history of alcohol-induced chronic pancreatitis complicated by a large pancreatic pseudocyst at the head of the pancreas (► Fig. 1), presented with severe abdominal pain and gastric outlet obstruction. EUS-guided cystogastrostomy was successfully performed with a 15-mm LAMS (► Fig. 2). The patient returned for stent removal 2 months later, and the follow-up computed tomography (CT) scan revealed resolution of the cyst. However, during the esophagogastroduodenoscopy to remove the stent, we observed a small orifice at the location of the previously applied stent (► Fig. 3 a). Fluoroscopic images confirmed stent migration into the fistulous lumen of the remaining pseudocyst (► Fig. 3 b). We proceeded with endoscopic retrieval of LAMS (► Video 1).

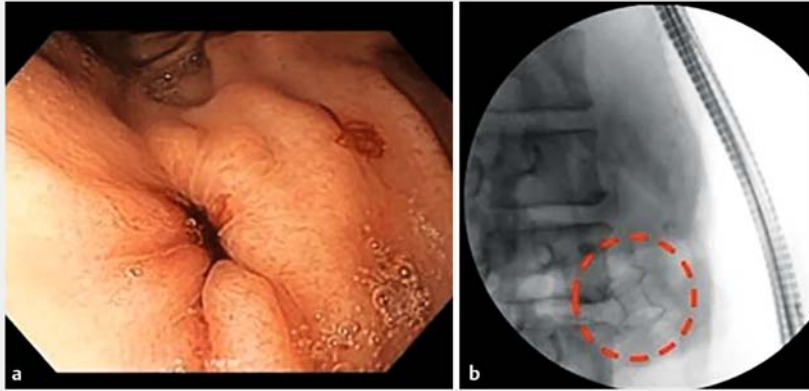
The retrieval procedure was performed under general anesthesia. Carbon diox-



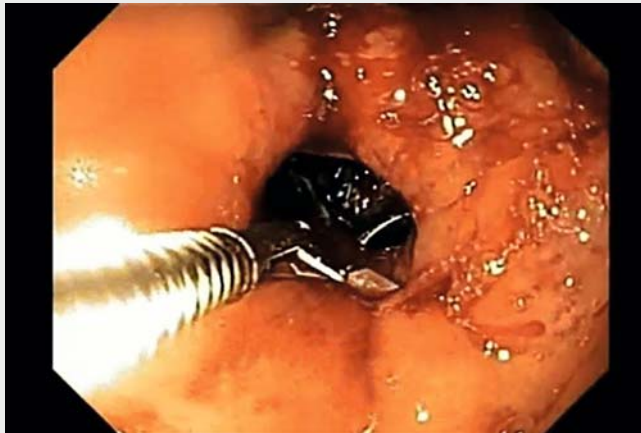
► Fig. 1 Computed tomography scan demonstrating a large pancreatic pseudocyst (circled) at the head of the pancreas, requiring endoscopic ultrasound-guided drainage.



► Fig. 2 Treatment of the pseudocyst. **a** Endoscopic ultrasound (EUS) image of the cystogastrostomy. **b** Endoscopic image of successful EUS-guided drainage of the pseudocyst with a lumen-apposing metal stent.



► **Fig. 3** Stent removal. **a** Endoscopic image of orifice at location of previously applied stent. **b** Fluoroscopic image confirming stent migration into the lumen of the remaining pseudocyst.

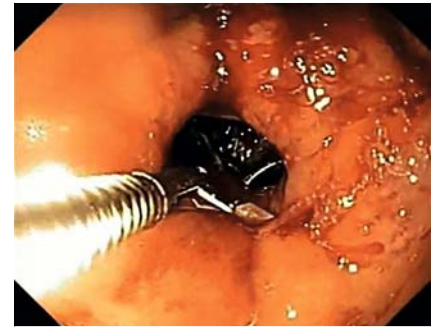


► **Video 1** Endoscopic retrieval of an inwardly migrated lumen-apposing metal stent after cystogastrostomy.

ide was used for this procedure. A long 0.035-inch guidewire was passed under fluoroscopic guidance through the fistulous tract. After serial dilations to 15 mm, under fluoroscopic guidance, the LAMS was successfully retrieved from the dilated orifice using rat-tooth forceps (► **Fig. 4**). An over-the-scope clip was deployed to close the gastric opening. Post-procedurally, the patient had mild abdominal pain, which was managed conservatively. Post-procedure CT scan

showed complete closure of the cystogastrostomy and ruled out perforation. In conclusion, despite superior antimigration features of new LAMS, inward migration has been reported. Successful retrieval of LAMS complicated by inward migration can be safely achieved by endoscopic means under fluoroscopic guidance.

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► **Fig. 4** Retrieval of a lumen-apposing metal stent from the lumen of the remaining pseudocyst, using a rat-tooth forceps.

### Competing interests

None

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### Bibliography

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