

Endoscopic removal of buried lumen-apposing metal stents used for cystogastrostomy and cholecystogastrostomy

The Hot AXIOS system is a new device for transgastric or transduodenal endoscopic drainage of a pancreatic pseudocyst or the gallbladder [1,2] using a lumen-apposing metal stent (LAMS) mounted on an electrocautery-enhanced introduction system. The device seems to be relatively safe in expert hands; however, the literature on management of its complications is limited [1–4]. Hereby, we report on two patients with embedded LAMSs, which were endoscopically removed.

Patient 1 was a 68-year-old man with a pseudocyst after acute pancreatitis who underwent successful endoscopic ultrasound (EUS)-guided cystogastrostomy with placement of an AXIOS stent (10 × 10 mm). Endoscopic removal of the LAMS was planned 3 months later; however, gastroscopy showed tissue overgrowth at the gastric flange of the LAMS making direct removal of the stent with a rat-tooth forceps or snare impossible. To avoid the patient having to undergo surgery, we opted for endoscopic treatment consisting of forced argon plasma coagulation (APC), needle-knife incision, and dilation of the stent up to 12 mm (▶ **Video 1**). After the tissue overgrowth had been sufficiently removed from the gastric flange, it was possible to remove the LAMS with a rat-tooth forceps. No complications subsequently occurred.

Patient 2 was a 59-year-old man with acute acalculous cholecystitis who underwent successful endoscopic gallbladder drainage by EUS-guided cholecystogastrostomy using a 15 × 10-mm AXIOS stent. LAMS removal was performed after 4 months. At gastroscopy, we found a buried gastric flange of the LAMS (▶ **Fig. 1**) in the antrum. Because standard stent removal with forceps was impossible, we dilated the LAMS up to 15 mm with a balloon, entered it with the endoscope, and removed the stent inside-out with a rat-tooth forceps. No complications subsequently occurred.



Endoscopic view of a lumen-apposing metal stent (LAMS) placed for cystogastrostomy with its gastric flange buried by tissue overgrowth being removed endoscopically using argon plasma coagulation (APC), needle-knife incision, dilation of the stent, and extraction with a rat-tooth forceps.

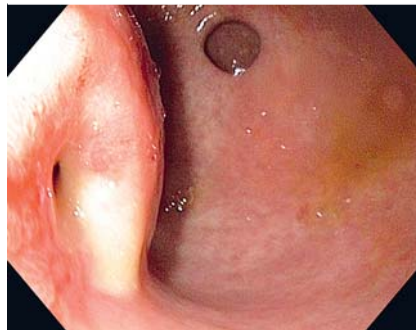


Fig. 1 Significant tissue overgrowth by gastric mucosa affecting a lumen-apposing metal stent (LAMS) after a stent dwell time of 4 months in a patient who had undergone cholecystogastrostomy.

Both these clinical cases show that tissue overgrowth at the gastric side of a LAMS can be a complication after cystogastrostomy and cholecystogastrostomy, making regular stent removal with a forceps impossible [1,3]. In such circumstances, endoscopic techniques as described above can be considered as rescue therapy.

Endoscopy_UCTN_Code_CPL_1AL_2AD

Competing interests: Frank P. Vleggaar is a consultant for Boston Scientific.

Tom C. Seerden¹, Frank P. Vleggaar²

¹ Department of Gastroenterology and Hepatology, Amphia Hospital, Breda, The Netherlands

² Department of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, The Netherlands

References

- 1 Walter D, Teoh AY, Itoi T et al. EUS-guided gall bladder drainage with a lumen-apposing metal stent: a prospective long-term evaluation. *Gut* 2016; 65: 6–8
- 2 Walter D, Will U, Sanchez-Yague A et al. A novel lumen-apposing metal stent for endoscopic ultrasound-guided drainage of pancreatic fluid collections: a prospective cohort study. *Endoscopy* 2015; 47: 63–67
- 3 Fabbri C, Luigiano C, Marsico M et al. A rare adverse event resulting from the use of a lumen-apposing metal stent for drainage of a pancreatic fluid collection: “the buried stent”. *Gastrointestinal Endosc* 2015; 82: 585–587
- 4 Shah R, Shah J, 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

DOI <http://dx.doi.org/10.1055/s-0042-107073>
Endoscopy 2016; 48: E179
 © Georg Thieme Verlag KG
 Stuttgart · New York
 ISSN 0013-726X

Corresponding author

T. C. Seerden, MD

Department of Gastroenterology and Hepatology
 Amphia Hospital
 Molengracht 21
 4818 CK Breda
 The Netherlands
 tseerden@amphia.nl