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, dilation of the stent, and extraction 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 with placement of 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.

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.

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

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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