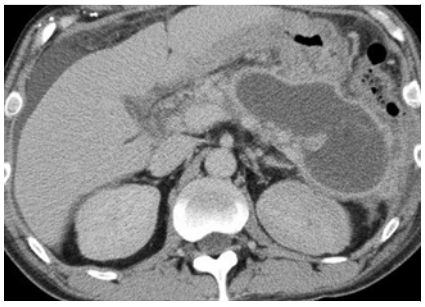
Endoscopic removal of a lumen-apposing metal stent that migrated into the walled-off necrosis during the first drainage procedure

A 43-year-old man with severe alcoholic acute pancreatitis complicated by infected walled-off necrosis (WON) (▶ **Fig. 1**) was referred to our hospital. An endoscopic ultrasound (EUS)-guided transluminal drainage was performed using a GF-UCT260 echoendoscope (Olympus Medical Systems, Tokyo, Japan) and a 15-mm lumen-apposing metal stent (LAMS; Hot AXIOS; Boston Scientific, Marlborough, Massachusetts, USA) was inserted. Although we used the intrascope channel release technique, the LAMS migrated into the WON (▶ **Fig. 2a**). After insertion of a 0.025-inch guidewire (VisiGlide 2; Olympus Medical Systems), the migrated LAMS was moved further into the WON using a balloon catheter (▶ **Fig. 2b**) to provide interspace for insertion of an additional 20-mm LAMS (Hot AXIOS; Boston Scientific), which was inserted along the guidewire and carefully deployed under endoscopic and fluoroscopic guidance (▶ **Fig. 2c**).



▶ **Fig. 1** Abdominal computed tomography scan showing an encapsulated fluid collection adjacent to the stomach, indicating an infected walled-off necrosis.

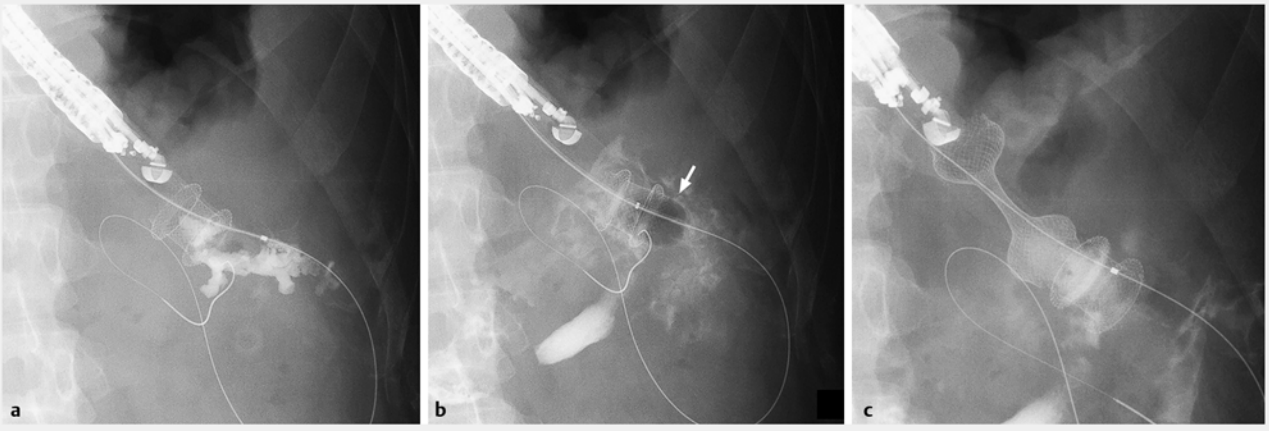
Endoscopic removal of the migrated LAMS was attempted 5 days after the first session. Removal of the LAMS by simple grasping of the flange with forceps or snaring was difficult owing to a narrow working space. Therefore, we used a 2-channel endoscope (GIF-2TQ260M; Olympus Medical Systems), through which we could grasp the LAMS tightly using a snare from the left-sided working channel after pulling the flange with the forceps from the right-sided working channel. We successfully removed the 15-mm LAMS through the additional 20-mm LAMS using this method (▶ **Fig. 3**). The 20-mm LAMS was not dislodged, and four sessions of endoscopic necrosectomy were subsequently performed without any adverse events, resulting in an improvement in the WON.

Although previous reports have described endoscopic replacement of a LAMS that had migrated into the stomach during endoscopic necrosectomy [1, 2], the rescue technique for a LAMS that had migrated into the cavity of the WON during the first drainage session has not been established. Insertion of an additional LAMS, followed by retrieval of the migrated stent in the following session is one possible strategy for management of such stent migration.

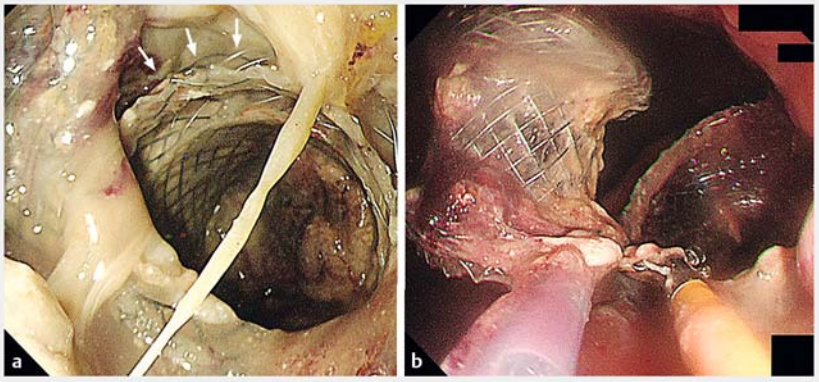
Endoscopy_UCTN_Code_CPL_1AK_2AG

Competing interests

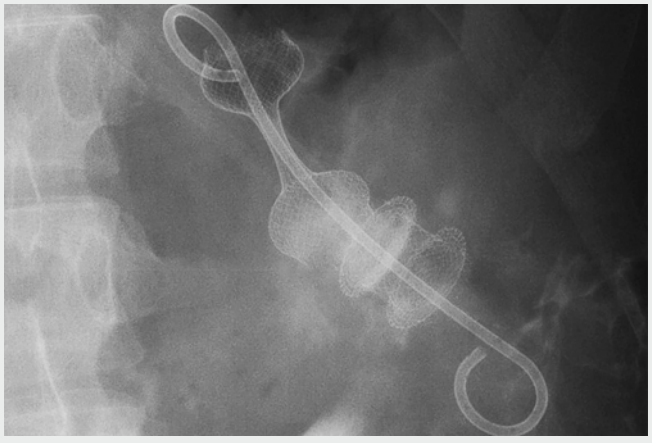
None



▶ **Fig. 2** Fluoroscopic images showing: **a** a 15-mm lumen-apposing metal stent (LAMS) that had migrated into the walled-off necrosis (WON) during the first drainage session; **b** the migrated LAMS being moved deeper into the WON using a balloon catheter (white arrow); **c** an additional 20-mm LAMS being inserted along the same guidewire under fluoroscopic guidance.



▶ **Fig. 3** Endoscopic images during removal of the migrated lumen-apposing metal stent (LAMS) 5 days after the first session showing: **a** the migrated and additional LAMS, with the proximal flange (white arrows) of the migrated LAMS clearly visualized; **b** the migrated LAMS being successfully removed by snaring the proximal end and grasping the flange using a 2-channel endoscope.



Video 1 A 15-mm lumen-apposing metal stent (LAMS) migrates into the walled-off necrosis (WON) during the first drainage session, following which an additional 20-mm LAMS is inserted. Endoscopic removal of the migrated LAMS is successfully performed in the next session.

The authors

Nao Fujimori, Yosuke Minoda, Masatoshi Murakami, Yuta Suehiro, Takamasa Oono, Eikichi Ihara, Yoshihiro Ogawa
Department of Medicine and Bioregulatory Science, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan

Corresponding author

Nao Fujimori, MD, PhD
Department of Medicine and Bioregulatory Science, Graduate School of Medical Sciences, Kyushu University, 3-1-1 Maidashi, Higashi-ku, Fukuoka, 812-8582, Japan
Fax: +81-92-6425287
fujimori@intmed3.med.kyushu-u.ac.jp

References

[1] Okuno M, Mukai T, Ichikawa H et al. Endoscopic replacement technique for migrated lumen-apposing metal stent during endoscopic pancreatic necrosectomy. VideoGIE 2019; 4: 220–222
[2] Kumta NA, Doshi R, Reinoso PJ et al. Retrieval and reuse of a dislodged lumen-apposing metal stent during endoscopic necrosectomy for pancreatic necrosis. Gastrointest Endosc 2016; 84: 364

Bibliography
DOI https://doi.org/10.1055/a-0992-8900
Published online: 9.9.2019
Endoscopy 2020; 52: E51–E52

Stuttgart · New York
ISSN 0013-726X