Endoscopic ultrasound-guided stent-in-stent placement for management of migrated hepatocystostomy stent

Stent misdeployment or migration into the peritoneal cavity is a dreaded complication of endoscopic ultrasound (EUS)-guided hepatocystostomy. It occurs in around 2.5% procedures, is potentially fatal, and usually treated surgically [1]. A few cases have been reported in which this complication was managed by repositioning the stent using transluminal endoscopic surgery techniques [2, 3] or by EUS-guided stent-in-stent insertion [4, 5]. Here we present a case of EUS-guided puncture of the migrated stent through the wall of the gastroesophageal junction followed by stent-in-stent insertion.

A 58-year-old woman with a malignant hilar obstruction, a self-expandable metal stent (SEMS) in the right hepatic duct, and a failure to drain the left hepatic duct during endoscopic retrograde cholangiography underwent EUS-guided hepatocystostomy with a fully covered biliary SEMS (Hanarostent BCG-10-060; M.I. Tech, Gyeonggi-do, Republic of Korea). The next day the patient developed abdominal pain and vomiting. Computed tomography (CT) revealed stent migration into abdominal cavity and a fluid collection between the stomach and left liver lobe (Fig. 1).

The stent could not be identified in the hepatocystostomy site on endoscopy (Fig. 2), but it was well visible on EUS close to the wall of the gastroesophageal junction. Using fluoroscopy control of the echoendoscope tip position and EUS guidance, the proximal end of the stent was punctured with a 19G needle (Easy-Shot3 Plus; Olympus, Tokyo, Japan), followed by insertion of a 0.035-mm guidewire (Visiglide; Olympus), dilation of the track with a 6-mm balloon (Hurricane RX; Boston Scientific, Marlborough, Massachusetts, USA), and insertion of a partially covered SEMS, 10 cm in length, in a stent-in-stent fashion (Hanarostent, BPD-10-100; M.I. Tech) (Fig. 3-5, Video 1). The postprocedural course was uneventful, clinical symptoms sub-
sided, and bilirubin level dropped from 8.5 mg/dl to 3.1 mg/dl within 14 days allowing chemotherapy to resume. CT and endoscopy at 6 weeks confirmed the correct position of the salvage stent.

**Video 1** Successful endoscopic ultrasound-guided stent-in-stent placement for salvage management of migrated hepatico-gastrostomy stent.

**Compeing interests**

M. Polkowski has had consultancy and speaker agreements with Boston Scientific and Olympus. M. F. Kaminski has had speaker agreements with Olympus, Fujifilm, Medtronic, and Boston Scientific, consultancy agreements with Olympus and Alpha Sigma, and received research support from Fujifilm.

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**Bibliography**

Endoscopy 2022; 54: E480–E481
DOI 10.1055/a-1638-8983
ISSN 0013-726X
published online 1.10.2021
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Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany

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