Endoscopic reintervention for stent dislodgement after endoscopic ultrasound-guided choledochoduodenostomy

Fig. 1 Radiographs in a 91-year-old man with duodenal carcinoma showing: **a** a fully covered self-expanding metal stent (SEMS) after endoscopic ultrasound-guided choledochoduodenostomy, and a duodenal stent; **b** complete dislodgement of the biliary stent.

Fig. 2 Endoscopic view of the second portion of the duodenum showing bile leaking from a small hole.

Fig. 3 Radiographs showing: **a** a catheter advanced through the choledochoduodenal fistula; **b** a fully covered self-expanding metal stent (SEMS) placed across the fistula.

Endoscopic reintervention with a fully covered self-expanding metal stent (SEMS) being inserted through the choledochoduodenal fistula.

Endoscopic ultrasound-guided choledochoduodenostomy (EUS-CDS) has been performed as an alternative drainage technique when endoscopic retrograde cholangiopancreatography (ERCP) fails [1,2]. This report describes a case of complete dislodgement of a self-expanding metal stent (SEMS) after EUS-CDS that was successfully treated by endoscopic reintervention.

A 91-year-old man presented to us with fever. He had undergone EUS-CDS with insertion of a fully covered SEMS for obstructive jaundice due to duodenal carcinoma 2 months previously (Fig. 1a). Occlusion of the biliary SEMS was sus-

pected because his liver enzymes were elevated; however, abdominal radiographs unexpectedly revealed complete dislodgement of the stent (Fig. 1b). During endoscopy, a small hole was found in the second portion of the duodenum, which was confirmed to be a choledochoduodenal fistula by fluoroscopic imaging (Fig. 2 and Fig. 3a). Subsequently, we opted to perform endoscopic reintervention. A 0.035-inch guidewire (Hydra Jagwire; Boston Scientific Japan, Tokyo, Japan) was inserted into the intrahepatic bile duct through the fistula. A fully covered SEMS (10 mm×6 cm; X-Suit NIR; Olympus Medical Systems Corp., Tokyo,

Japan) was then placed across the fistula without any complications (Fig. 3b; Video 1).

In patients who have undergone EUS-CDS, stent migration can result in bile leakage into the retroperitoneum; if this occurs, percutaneous transhepatic biliary drainage or emergency surgery must be considered [3]. In our patient, formation of a choledochoduodenal fistula prevented biliary peritonitis even though the stent had been dislodged, and closure of the fistula induced obstructive jaundice. A cautious approach is required in such a situation to avoid damaging the fistula during the procedure of endoscopic reintervention.

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References

- 1 Kawakubo K, Isayama H, Kato H et al. Multi-center retrospective study of endoscopic ultrasound-guided biliary drainage for malignant biliary obstruction in Japan. *J Hepatobiliary Pancreat Sci* 2014; 21: 328–334
- 2 Hamada T, Isayama H, Nakai Y et al. Transmural biliary drainage can be an alternative to transpapillary drainage in patients with an indwelling duodenal stent. *Dig Dis Sci* 2014; 59: 1931–1938
- 3 Itoi T, Isayama H, Sofuni A et al. Stent selection and tips on placement technique of EUS-guided biliary drainage: transduodenal and transgastric stenting. *J Hepatobiliary Sci* 2011; 18: 664–672

Bibliography

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