Endoscopic salvage technique for spontaneous dislocation and tumor ingrowth of a partially covered, self-expandable metallic stent after endoscopic ultrasound-guided choledochoduodenostomy

Endoscopic ultrasound-guided choledochoduodenostomy (EUS-CDS) has been established as an alternative method of biliary drainage after failure of endoscopic retrograde cholangiopancreatography (ERCP) [1, 2]. Because of its prolonged stent patency and reduced bile leakage, use of the covered self-expandable metallic stent (CSEMS) has recently been favored. We present a case of spontaneous dislocation of a partially covered SEMS (PCSEMS) after EUS-CDS that was successfully rescued by endoscopic intervention.

A 67-year-old woman with metastatic cancer of the pancreatic head was admitted to our hospital with obstructive jaundice. She underwent EUS-CDS using a PCSEMS (WallFlex stent, 10 × 60 mm; Boston Scientific Japan, Tokyo, Japan) without complication (Video 1). Seven months later, she developed acute cholangitis. The PCSEMS had dislocated, as was confirmed on computed tomography (Video 1). Our first attempt was to try to extract the PCSEMS using a snare, but this failed because of tumor ingrowth into the uncovered portion. In our next attempt, the PCSEMS was partially trimmed using argon plasma coagulation with an electro-surgical generator (ICC 200; Erbe Elektromedizin, Tübingen, Germany) at 80W and with a flow rate of 2 L/min (Fig. 2), and we attempted guidewire cannulation through the partially fragmented PCSEMS. A 0.025-inch guidewire was advanced through the ERCP catheter under fluoroscopic guidance (Video 2). ERC revealed a stricture of the PCSEMS caused by tumor ingrowth (Fig. 3, Video 2). An ERCP catheter and a biliary dilation catheter could not be passed through the stricture (Video 2). In our third attempt, we dilated the stricture using a 6-Fr wire-guided diathermic dilator (Cysto-Gastro-Set; Endo-Flex, Vorder, Germany) using an EGS-100 electrosurgical generator (Olympus, Tokyo, Japan; 30W in pulse cut slow mode) (Fig. 4, Video 2). Finally, a 6-Fr uncovered SEMS (Zilver 635 stent; 10 mm × 60 mm, Cook-Japan, Tokyo, Japan) was placed without complication (Fig. 5, Video 2).
Spontaneous dislocation of a PCSEMS after EUS-CDS is a very rare complication [1, 2]. In the case described here, we successfully mitigated this situation using endoscopic intervention. In particular, a diathermic dilator is useful for dilating severe strictures [3, 4]. The findings described here suggest that more attention should be paid to the possibility of PCSEMS dislocation when performing EUS-CDS.

Competing interests: None

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Fig. 4 Radiograph showing placement of the uncovered self-expandable metallic stent in the stricture.

Fig. 5 Radiograph showing a 6-Fr diathermic dilator successfully advanced through the severe stricture over a guidewire under fluoroscopic guidance.