Endoscopic removal of a proximally migrated pancreatic stent using a gooseneck snares

The effectiveness of pancreatic stents for prevention of post-endoscopic retrograde cholangiopancreatography (ERCP) pancreatitis is widely recognized [1]. However, proximal migration of a pancreatic stent is occasionally encountered, potentially necessitating surgical intervention [2, 3]. A gooseneck snares (Amplatz Goose-Neck Microsnare Kit; Covidien, Irvine, California, USA), which was originally developed for removing intravascular foreign bodies [4], is a microsnares that forms a 90° angle just after exiting the outer sheath (Fig. 1). We hereby describe a useful technique for endoscopic removal of a proximally migrated pancreatic stent using this snares.

A 72-year-old man required endoscopic removal of common bile duct stones. Whilst he was undergoing the procedure, a one-sided pigtail pancreatic stent (Daimon T stent, 5 Fr, 5 cm; Silux, Saitama, Japan) was incorrectly placed in the main pancreatic duct (MPD). Impaction of its pigtail end into a branch of the pancreatic duct and the non-dilated MPD (Fig. 2) inhibited the removal of the stent with a small-diameter snares, basket, balloon catheter, and biopsy forceps.

The patient was referred to our institution and ERCP was carried out. Access to the MPD was obtained with a conventional cannula (ERCP catheter; MTW-Endoskopie, Wesel, Germany) and 0.035-inch hydrophilic guidewire (Radifocus; Terumo, Tokyo, Japan). The catheter was passed alongside the stent to the tail of the pancreas. A gooseneck snares (4-mm-wide loop, 175-cm long) was then detached from its accessory sheath and inserted through the prepositioned catheter. As the snares was withdrawn, its loop passed over the pancreatic stent until it reached the bend in the pigtail portion of the stent (Fig. 3a). With the pigtail portion therefore grasped by the loop of the snares, further withdrawal of the snares allowed the stent to be easily pulled back into the duodenum (Fig. 3b and Fig. 4; Video 1).

Endoscopic removal of a pancreatic stent located in the MPD is technically demanding [5]. A gooseneck snares can easily expand with a snares loop perpendicular to the MPD, making the stent easier to grasp.

Video 1
Endoscopic removal of a proximally migrated pancreatic stent using a gooseneck snares.

Competing interests: None

Fig. 1 The gooseneck microsnares kit has a snares loop that forms a 90° angle just after exiting the outer sheath. Various sizes of snares loops are available, and the optimal size can be chosen according to the diameter of the pancreatic duct.

Fig. 2 Computed tomography (CT) image showing the proximally migrated pancreatic stent with its pigtail end impacted in a branch of the pancreatic duct.

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Fig. 3  Fluoroscopic images of: a the goose-neck snare grasping the pigtail portion of the migrated pancreatic stent; b the pancreatic stent being pulled out of the pancreatic duct.

Fig. 4  The 5-Fr, 5-cm plastic pancreatic stent following its successful removal.

References

Bibliography
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