Two-step pancreatic duct stenting with endoscopic ultrasonography and balloon-assisted enteroscopy for pancreaticojejunal anastomotic stricture

A 75-year-old woman was referred to our hospital for treatment of pancreaticojejunal anastomotic stricture (PJS) after pancreaticoduodenectomy for pancreatic head cancer. Although balloon-assisted enteroscopy was performed, the PJS could not be cannulated by a catheter owing to occlusion. Endoscopic ultrasonography (EUS)-guided pancreatic drainage was performed via the stomach at the main pancreatic duct (MPD) adjacent to the PJS using a 7-Fr plastic stent because puncture of the distal MPD was difficult (Fig. 1, Fig. 2, Video 1). Three months later, computed tomography (CT) revealed dilation of the MPD due to the insufficient length of the stent passed through the MPD (Fig. 3). Therefore, we planned to place another stent into the MPD from the jejunal side using balloon-assisted enteroscopy. Although the previous stent was unfortunately dislodged during scope insertion, the pancreaticojejunal anastomosis was easily detected and a 0.025-inch guidewire could be inserted. However, the guidewire was directed only toward the stomach via the fistula. Thus, we used the uneven double-lumen cannula (Piolax Medical Devices Inc., Yokohama, Japan) and succeeded in placing another guidewire into the distal MPD (Fig. 4). Finally, a 7-Fr plastic stent was placed (Fig. 5, Video 1). One month later, CT revealed disappearance of the MPD dilation.

This is the first report of two-step pancreatic duct stenting with EUS and balloon-assisted enteroscopy for PJS. When PJS and the puncture site under EUS are adjacent and a placed stent does not function adequately, this two-step approach is very effective. The uneven double-lumen cannula has also been reported as an "uneven method" for patients with bile duct cannulation difficulties [1]. When the previous fistula is easily cannulated, but not the targeted MPD, the uneven double-lumen cannula is also useful for selective insertion.
Competing interests

The authors declare that they have no conflict of interest.

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Fig. 4 Fluoroscopic image showing success of guidewire insertion into the main pancreatic duct (MPD) with a double-lumen cannula (arrowhead: guidewire into the stomach; arrow: guidewire into the MPD).

Fig. 5 Fluoroscopic image after the second pancreatic stenting under balloon-assisted enteroscopy guidance.