Successful removal of a pancreatic duct stone in a patient with Whipple resection, using a short single-balloon enteroscope with a transparent hood

Fig. 1 Endoscopic view showing a small pancreaticojejunal anastomotic site in a 74-year-old woman with mild acute pancreatitis and history of Whipple resection.

Fig. 3 **a** The anastomotic site was dilated with a 6-mm balloon. **b** The stone was removed from the pancreatic duct with a basket and retrieval balloon.

Fig. 2 Endoscopic retrograde pancreatography through the anastomotic site showing a stone in the remnant of the main pancreatic duct.

Endoscopic retrograde cholangiopancreatography (ERCP) is a challenging procedure, especially in indications involving the pancreatic duct in patients with Whipple resection [1–3]. Identification of the pancreaticojejunal anastomotic site is difficult because of the location and small size of the anastomosis, and interference from the jejunal folds. We proposed that a transparent hood would be effective for retraction of the folds to a suitable distance from the intestinal wall. Here, we report on the successful removal of a pancreatic duct stone in a patient with Whipple resection, using a prototype short, single-balloon enteroscope (SBE; working length, 152 cm; outer diameter 9.2 mm; working channel diameter 3.2 mm; SIF-Y0004-V01, Olympus Medical Systems, Tokyo, Japan) with a transparent hood.

A 74-year-old woman admitted for mild acute pancreatitis had a history of pancreaticoduodenectomy for bile duct cancer. Computed tomography revealed the remnant of a dilated pancreatic duct and a stone. A therapeutic intervention involving the short SBE was carried out. The pancreatic duct was successfully cannulated using a standard ERCP catheter and a 0.025-inch guidewire (Fig. 1, Video 1). A pancreatogram confirmed

the presence of a stone in the main pancreatic duct (Fig. 2, Video 2). The anastomotic site was dilated using a 6-mm balloon, and the stone was removed from the pancreatic duct with a basket and a retrieval balloon (Fig. 3, Video 3), without any complication. In our patient, the transparent hood was effective in identifying the anastomotic site. We have found that the short SBE can be used as a therapeutic intervention along with various conventional ERCP accessories [4,5].

Video 1

Pancreatic duct cannulation was achieved using a standard endoscopic retrograde cholangiopancreatography (ERCP) catheter and a 0.025-inch guidewire.

Video 2

Pancreatography confirmed the presence of a stone in the main pancreatic duct.

Video 3

The anastomotic site was dilated using a 6-mm balloon, and the stone was removed from pancreatic duct with a basket and retrieval balloon.

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