Endoscopic ultrasound-guided pancreatic duct stent placement for symptomatic pancreaticojejunostomy stricture

A 57-year-old woman underwent a pancreaticoduodenectomy for a duct-type intraductal papillary mucinous neoplasm in the pancreatic head. She presented 3 years later with recurrent episodes of acute pancreatitis, with computed tomography (CT) revealing swelling of the pancreas remnant and dilation of the pancreatic duct, suggesting pancreaticojejunostomy (PJS) stricture. Endoscopic ultrasound (EUS)-guided pancreatic duct drainage was considered as a viable option for patient management (▶ Video 1). We advanced the echoendoscope into the stomach and identified the 4.6-mm main pancreatic duct (▶ Fig. 1). We punctured the pancreatic duct with a 19-gauge flexible needle and performed pancreatography (▶ Fig. 2). A 0.025-inch guidewire could not be negotiated across the PJS anastomosis (▶ Fig. 3). Next, we inserted a 6-Fr cystotome followed by the deployment of a 5 Fr × 7 cm plastic stent; the proximal extremity of the stent was positioned in the pancreatic duct and the distal end was in the gastric lumen (▶ Fig. 4).

The recovery was uneventful and the patient was discharged 5 days after the procedure. A CT scan 4 months later demonstrated the good position of the pancreatic stent (▶ Fig. 5). In the following 6 months, acute pancreatitis did not recur, and amylase and lipase blood levels returned to normal.

The incidence of long-term PJS stricture following pancreaticoduodenectomy resection for benign disease ranges from 5% to 10% [1, 2]. Surgical reintervention for this adverse event is complex [3]. Therefore, many authors favor less invasive initial approaches, namely enteroscopy-assisted endoscopic retrograde pancreatography (e-ERP). EUS-guided pancreatic duct drainage has advanced significantly and provides an alternative to e-ERP. In an international multicenter retrospective study, EUS-guided pancreatic duct drainage demonstrated better clinical success (87.5% vs. 23.1%) but had a higher mild-to-moderate adverse event rate (35% vs. 2.9%) [4]. In conclusion EUS-guided pancreatic duct stent placement is technically challenging but a viable option to treat PJS stricture in symptomatic patients.
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Video 1 Endoscopic ultrasound-guided pancreatic duct stent placement for pancreatocutaneous fistula.

Fig. 4 Placement of a 5-Fr plastic stent (arrow) from the stomach into the pancreatic duct.

Fig. 5 Computed tomography control demonstrated pancreatic stent (arrow) in a good position.