Anastomotic PJ stricture: EUS-Guided PD Drainage

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A 24-year-old female underwent pancreato-duodenectomy for pancreatic head tumor (solid pseudopapillary epithelial neoplasm) 2 years ago and now presented with recurrent epigastric pain for the last 6 months. Magnetic resonance cholangiopancreatography revealed narrowing at the pancreato-jejunal (PJ) anastomosis with dilated upstream main pancreatic duct (►**Fig. 1**). Attempt at an enteroscopy-guided drainage of pancreatic duct (PD) was unsuccessful due to failure (►**Fig. 2**) to reach the anastomotic site. Hence, endoscopic ultrasound (EUS)-guided PD drainage was considered (►**Video 1**). At EUS, pancreas echotexture was normal with irregular and dilated PD (6.6 mm in body). The PD was punctured in body region at its maximum diameter with a 19G needle (EZShot3-Plus, Olympus, Tokyo, Japan). Pancreatogram confirmed dilated PD with anastomotic PJ stricture with minimal opacification of jejunum (►**Fig. 3**). A 0.035" hydrophilic guidewire (Terumo, 260cm) was passed across the PJ stricture into jejunum (►**Fig. 4**). The gastro-pancreatic fistula was created by passing 6Fr cystotome over-the-wire. The guidewire was then exchanged for a longer stiffer wire (Jagwire, 0.035," 450cm, Boston-scientific, Massachusetts, United States). The PJ stricture was dilated with balloon (4mm, Titan, Cook Medical, Indiana, United States) (►**Fig. 5**) followed by a 7Fr 12 cm straight plastic stent placed with distal stent tip inside jejunum and proximal end in the stomach (gastro-pancreatico-enteroscopy or Ring drainage) (►**Fig. 6**). There was no peri-procedure adverse event. Patient is asymptomatic at 11 months of follow-up with stent in situ.

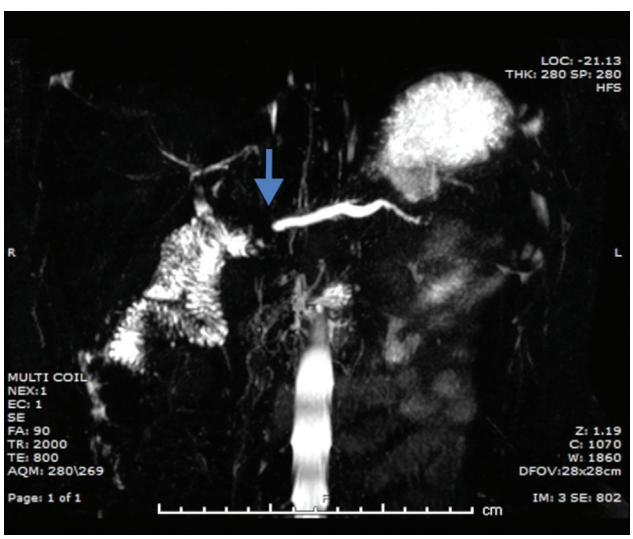

Fig. 1 MRCP showing narrowing at the pancreato-jejunal (PJ) anastomotic site (blue arrow) with dilated upstream MPD.

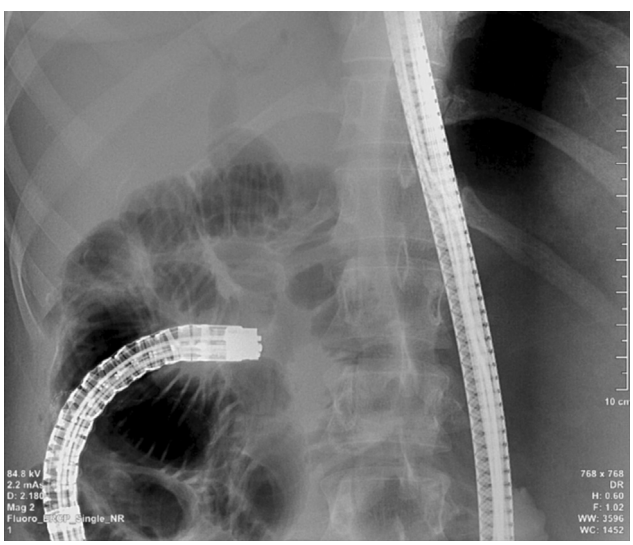

Fig. 2 Attempt at enteroscopy-guided drainage of pancreatic duct was unsuccessful due to failure to reach the anastomotic site.

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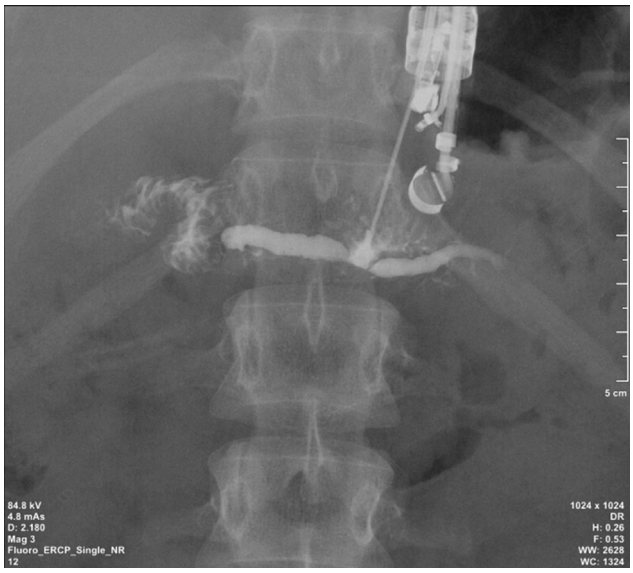

Fig. 3 Pancreatogram shows dilated PD with anastomotic PJ stricture.

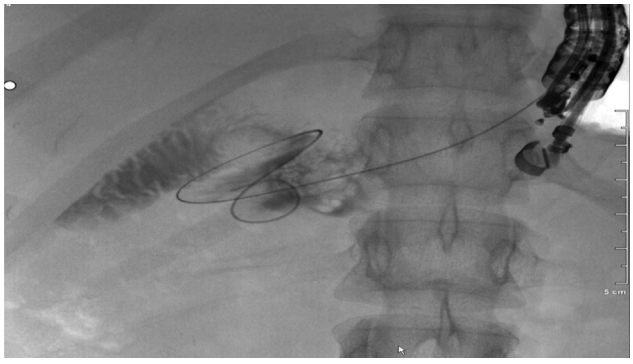

Fig. 4 Guidewire passed across PJ stricture into jejunum.

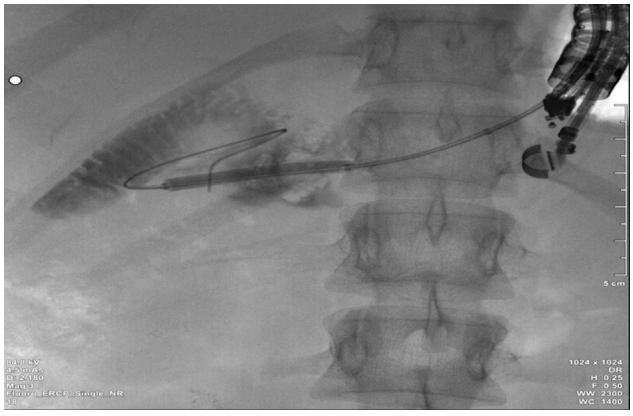

Fig. 5 Balloon dilatation of PJ stricture.

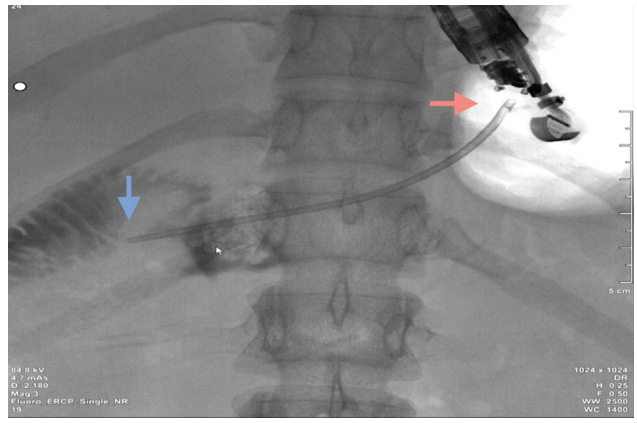

Fig. 6 'Ring drainage' or gastro-pancreato-jejunostomy with distal tip of straight plastic stent in jejunum (blue arrow) and proximal end in gastric lumen (orange arrow).

Video 1

Endoscopic ultrasound guided drainage of pancreatic duct (Antegrade approach). Online content including video sequences viewable at: https://www.thieme-connect.com/products/ejournals/html/10.1055/s-0042-1753498.

EUS-guided PD drainage can be achieved either by rendezvous (in patient having normal surgical anatomy) or antegrade approach (normal or altered surgical anatomy).[1,2] In antegrade transanastomotic drainage, the distal end of the stent can be positioned in the small bowel and the proximal end in the stomach (i.e., "ring drainage" or gastro-pancreato-jejunostomy).[3] The reported overall technical and clinical success rates of antegrade approach are 89 and 87%, respectively, with an adverse event rate of 12%.[2] We selected a straight plastic stent due to its better push ability (transmission of force) across the pancreatojejunostomy stricture and gastro-pancreatic fistula leaving a substantial length in stomach to prevent inward migration. Also, guidewire can be passed across the lumen of the straight plastic stent for future stent exchange, if required.

EUS-guided pancreatic duct intervention offers an alternative for patients with obstructed PD who have failed established endoscopic techniques for duct drainage.

Conflict of Interest
None declared.

References

1 Widmer J, Sharaiha RZ, Kahaleh M. Endoscopic ultrasonography-guided drainage of the pancreatic duct. Gastrointest Endosc Clin N Am 2013;23(04):847–861
2 Krafft MR, Nasr JY. Anterograde endoscopic ultrasound-guided pancreatic duct drainage: a technical review. Dig Dis Sci 2019;64(07):1770–1781
3 Tyberg A, Sharaiha RZ, Kedia P, et al. EUS-guided pancreatic drainage for pancreatic strictures after failed ERCP: a multicenter international collaborative study. Gastrointest Endosc 2017;85(01):164–169

