

Anastomotic PJ stricture: EUS-Guided PD Drainage

Goutham Reddy Katukuri¹ Anudeep Katrevula¹ Mohan Ramchandani¹ Sundeep Lakhtakia¹
Nageshwar Reddy Duvvur¹

¹Department of Gastroenterology, Asian Institute of Gastroenterology Hospitals, Hyderabad, Telangana, India

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Address for correspondence Sundeep Lakhtakia, MD, DM, Department of Gastroenterology, Asian Institute of Gastroenterology Hospitals, Hyderabad, Telangana, India (e-mail: drsundeelakhtakia@gmail.com).

A 24-year-old female underwent pancreateo-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 pancreateo-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.

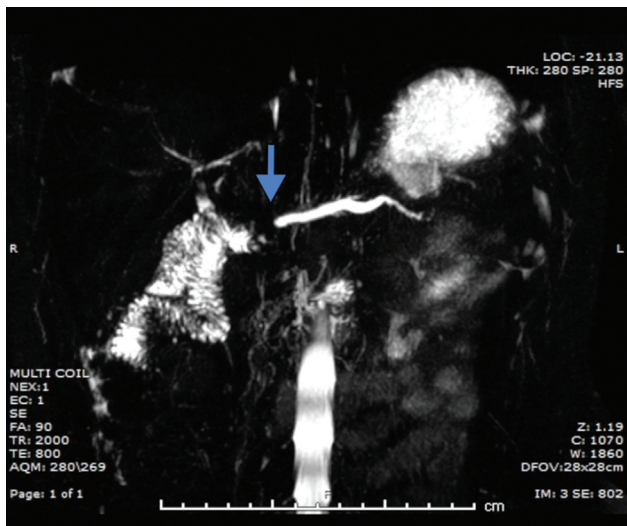


Fig. 1 MRCP showing narrowing at the pancreateo-jejunal (PJ) anastomotic site (blue arrow) with dilated upstream MPD.

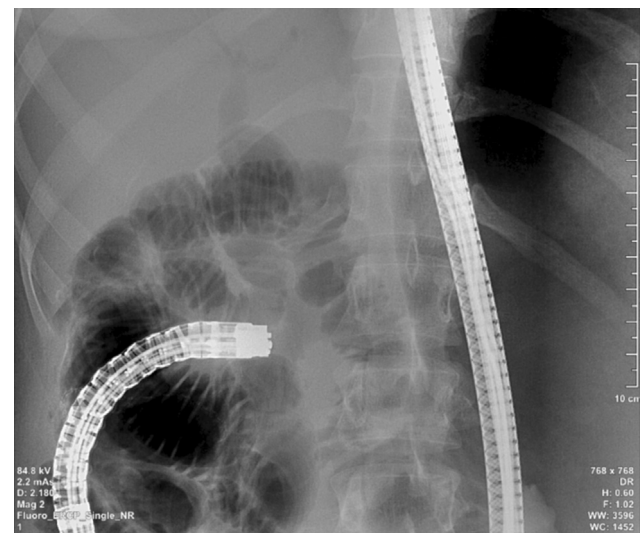


Fig. 2 Attempt at enteroscopy-guided drainage of pancreatic duct was unsuccessful due to failure to reach the anastomotic site.

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

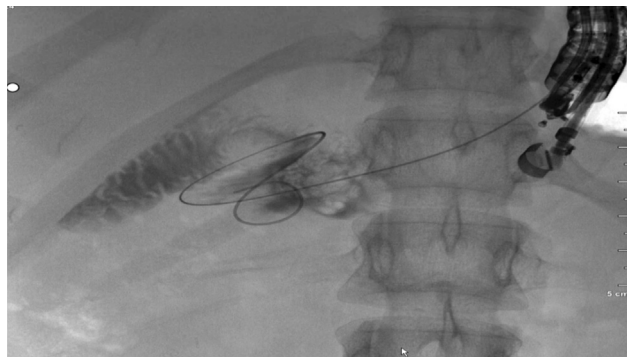


Fig. 4 Guidewire passed across PJ stricture into jejunum.



Fig. 5 Balloon dilatation of PJ stricture.

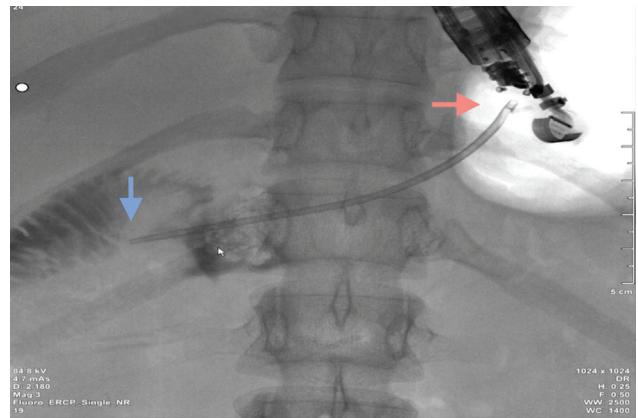


Fig. 6 'Ring drainage' or gastro-pancreato-jejunostomy with distal tip of straight plastic stent in jejunum (blue arrow) and proximal end in gastric lumen (orange arrow).

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 rendez-vous (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.

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