Successful retrograde and antegrade passage of narrow and complete pancreatic strictures using a cystogastrostome

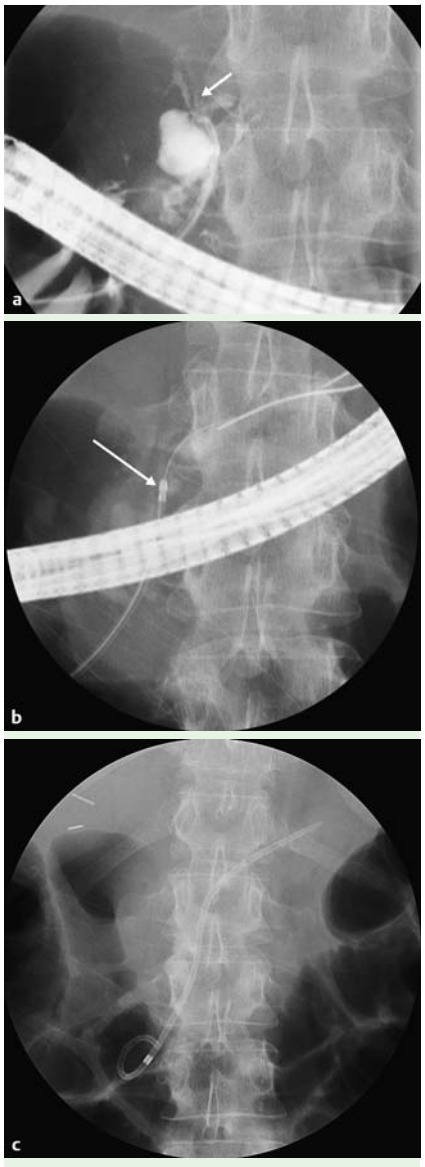

Fig. 1 Endoscopic retrograde cholangiopancreatography (ERCP) in a patient with tight main pancreatic duct stricture. **a** Site of connection with main pancreatic duct (arrow). **b** Retrograde recanalization with a 6-Fr cystogastrostome (arrow). **c** Successful placement of a 7-Fr pigtail pancreatic stent.

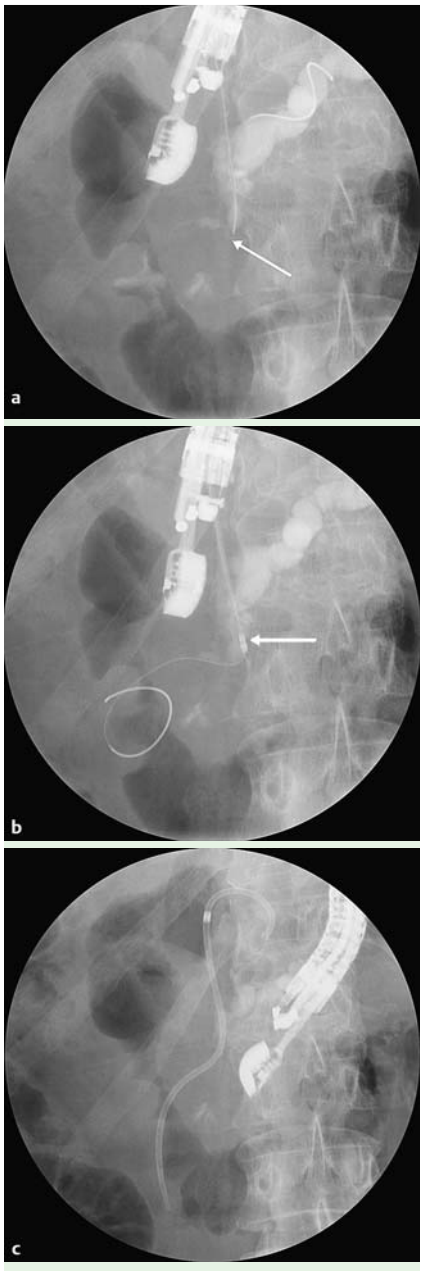

Fig. 2 **a** Endoscopic ultrasound (EUS)-guided antegrade opacification with complete stop (arrow) in head of the pancreas. **b** EUS and fluoroscopy-guided antegrade recanalization with 6-Fr cystogastrostome (arrow indicates the tip) through the duct of Santorini, minor papilla, and the duodenum. **c** EUS-guided antegrade placement of a pigtail 7-Fr pancreatic stent.

Pancreatic duct strictures may be due to acute or chronic pancreatitis, pancreatic neoplasms, or anastomotic stenosis. Some of these strictures may be almost complete and only traversable with hydrophilic guide wires. When the passage of tapered catheters, Soehendra or balloon dilators is not possible, appropriate endoscopic drainage of the pancreatic duct may fail. Blind passage of a needle knife [1] or endoscopic ultrasound (EUS)-guided antegrade drainage may be helpful [2–4].

The Cremer cystogastrostome was particularly developed for transmural cystgastrostomy or cystduodenostomy, and has been recently used for transmural biliary and pancreatic EUS-guided drainage [4,5]. The 6-Fr diameter version, with cutting current settings, is known for its high traversability, even through hard tissue.

We describe the successful use of the 6-Fr cystogastrostome (EndoFlex, Boucart Medical, Brussels, Belgium) in two patients with extremely tight pancreatic strictures. The first patient was 53 years of age and had chronic pancreatitis with a severe stricture of the main pancreatic duct (MPD), measuring 15 mm in length. After several failed attempts to pass the stenosis using a variety of catheters, recanalization was finally carried out using the 6-Fr cystostome on a 0.035 Jagwire (Boston Scientific Benelux, Diegem, Belgium), with pure cutting current (effect 4, 40 W, Vio300D, Erbe Belgium, Diegem, Belgium). This was followed by successful stenting with a plastic 7-Fr Zimmon ZPSOF (Cook, Limerick, Ireland) (**Fig. 1**).

In the second case, we used the cystostome via an anterograde approach after endoscopic retrograde pancreatography (ERCP) to access the pancreatic duct failed due to a complete block of the lumen within the head of the pancreas. EUS-guided, 19-gauge puncture of the pancreatic duct allowed positioning of a 0.035 Jagwire through the stricture in the duodenum. After numerous attempts to pass tapered catheters failed, deep MPD cannulation was achieved using the cystogastrostome with cutting current. Balloon dilation (Hurricane RX, Boston Scientific, Diegem, Belgium) and stenting with a plastic 7-Fr stent were thereafter carried out successfully (**Fig. 2**). We have used a similar cystostome approach in various biliary and pancreatic strictures in another three patients, including a patient with a tight hilar biliary stricture following right hepatectomy. There were no

complications or evidence of post-procedural pain in these cases.

In conclusion, the cystogastrostome, with pure cutting current, allows adequate endoscopic drainage, including dilation and stent placement, and can be safely used in those pancreatic and biliary strictures that are not traversable with conventional methods.

Endoscopy_UCTN_Code_TTT_1AR_2AG

Competing interests: None

E. Kim, T. Aouattah, P. H. Deprez
Department of Gastroenterology, Cliniques Universitaires St-Luc, Université Catholique de Louvain, Brussels, Belgium

References

1 *Ryou M, Mullady DK, Dimaio CJ et al.* Pancreatic antegrade needle-knife (PANK) for treatment of symptomatic pancreatic duct obstruction in Whipple patients. Gastrointest Endosc 2010; 72: 1081 – 1088
2 *Bataille L, Deprez P.* A new application for therapeutic EUS: main pancreatic duct drainage with a "pancreatic rendezvous technique". Gastrointest Endosc 2002; 55: 740 – 743
3 *Das K, Kitano M, Komaki T et al.* Pancreatic ductal drainage by endoscopic ultrasound-assisted rendezvous technique for pain caused by ductal stricture with chronic pancreatitis. Dig Endosc 2010; 22: 217 – 219
4 *Ergun M, Aouattah T, Gillain C et al.* Endoscopic ultrasound (EUS) guided transluminal drainage of pancreatic duct obstruction: long term outcome. Endoscopy 2011; 43: 518 – 525
5 *Tessier G, Bories E, Arvanitakis M et al.* EUS-guided pancreatogastrostomy and pancreatobulbostomy for the treatment of pain in patients with pancreatic ductal dilatation inaccessible for transpapillary endoscopic therapy. Gastrointest Endosc 2007; 65: 233 – 241

Bibliography
DOI 10.1055/s-0030-1256793
Endoscopy 2011; 43: E340 – E341

ISSN 0013-726X

Corresponding author
P. H. Deprez
Gastroenterology Department
Cliniques Universitaires St-Luc
Université Catholique de Louvain (UCL)
Avenue Hippocrate 10
1200 Brussels
Belgium
Fax: +32-2-7648927
pierrehenri.deprez@uclouvain.be