Endoscopic ultrasound-guided pancreatic duct drainage using antegrade stenting

A 66-year-old woman was admitted to our hospital because of abdominal pain. She had previously had chronic pancreatitis. On magnetic resonance cholangiopancreatography (MRCP) and EUS imaging, the pancreatic duct was observed to be dilated from the head of the pancreas, around which a pancreatic stone was also seen. This pancreatic stenosis was treated using a pancreatic stent. First, we performed ERCP, through which we observed the stenosis of the pancreatic duct. However, we were unable to pass the ERCP cannula through the stenosis site (Fig. 1).

Next, the scope was changed from a duodenoscope to a convex echoendoscope. To avoid any intervening vessels, the pancreatic duct was first punctured using a 19-G needle under Doppler imaging (Fig. 2). After pancreatic juice had been aspirated, contrast medium was injected, and images of the pancreatic duct were obtained (Fig. 3). Then, a 0.025-inch stiff guidewire was inserted, and was easily advanced into the duodenum through the stenosis. Next, the 19-G needle was exchanged for an ERCP catheter to dilate the fistula (Fig. 4). Although an EUS-guided rendezvous approach was considered, EUS-guided antegrade stenting of the pancreatic duct was attempted because no leakage of pancreatic juice was seen on endosonographic imaging. The 7-Fr straight plastic stent was inserted antegradely, from the duodenum to the pancreatic duct (Fig. 5). No adverse events were seen.

Although validation is required in a prospective clinical trial, this novel technique appears to be safe and effective as an option for EUS-guided pancreatic duct drainage.

Endoscopic ultrasound (EUS)-guided pancreatic duct access in patients with an inaccessible papilla or failed endoscopic retrograde cholangiopancreatography (ERCP) has been reported previously [1, 2]. This technique consists of the EUS-guided rendezvous technique, and EUS-guided pancreatic duct stenting via the duodenostomy, and it may easily occur because of food impaction. Novel technical tips for EUS-guided pancreatic duct antegrade stenting are presented here (Video 1).

During endoscopic ultrasound (EUS)-guided pancreatic duct antegrade stenting, the main pancreatic duct is punctured using a 19-G needle, and contrast medium is injected. A 0.025-inch guidewire is inserted through the 19-G needle and advanced into the duodenum. To dilate the fistula, a cannula used for endoscopic retrograde cholangiopancreatography (ERCP) is inserted. Finally, a 7-Fr plastic stent is placed antegradely from the duodenum to the pancreatic duct.
Fig. 4  A 0.025-inch guidewire and ERCP cannula have been easily advanced into the duodenum through the stenosis.

Fig. 5  A 7-Fr plastic stent has been placed antegradeley.

Competing interests: None

Takeshi Ogura¹, Saori Onda¹, Tatsushi Sano¹, Kazuhiro Yamamoto², Daisuke Masuda¹, Akira Imoto¹, Kazuhide Higuchi¹
¹ Second Department of Internal Medicine, Osaka Medical College, Osaka, Japan
² Department of Radiology, Osaka Medical College, Osaka, Japan

References

Bibliography
DOI  http://dx.doi.org/10.1055/s-0034-1391422
Endoscopy 2015; 47: E161–E162
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

Corresponding author
Takeshi Ogura, PhD, MD
Second Department of Internal Medicine
Osaka Medical College
1-1 Daigakuchou, Takatsukishi
Osaka 464-8681
Japan
Fax: +81-52-7635233
oguratakeshi0411@yahoo.co.jp