

Two-step pancreatic duct stenting with endoscopic ultrasonography and balloon-assisted enteroscopy for pancreaticojejunal anastomotic stricture

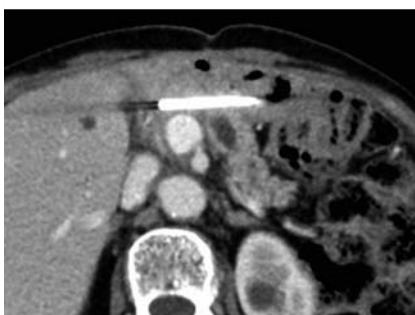
OPEN
ACCESS



► **Fig. 1** Pancreatography during endoscopic ultrasonography-guided puncture of the main pancreatic duct.



► **Fig. 2** Fluoroscopic image after the first pancreatic stenting under endoscopic ultrasonography guidance.



► **Fig. 3** Computed tomography image 3 months after the first pancreatic stenting showing dilation of the main pancreatic duct.



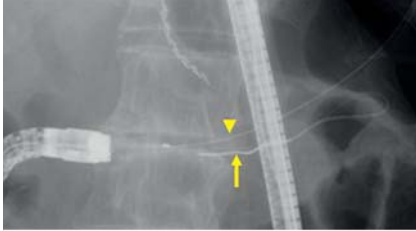
► **Video 1** Endoscopic ultrasonography-guided drainage of the main pancreatic duct (MPD) with a plastic stent, followed by balloon-assisted enteroscopy-guided drainage of the MPD with a double-lumen cannula and a plastic stent.

A 75-year-old woman was referred to our hospital for treatment of pancreaticojejunal anastomotic stricture (PJS) after pancreaticoduodenectomy for pancreatic head cancer. Although balloon-assisted enteroscopy was performed, the PJS could not be cannulated by a catheter owing to occlusion. Endoscopic ultrasonography (EUS)-guided pancreatic drainage was performed via the stomach at the main pancreatic duct (MPD) adjacent to the PJS using a 7-Fr plastic stent because puncture of the distal MPD was difficult (► **Fig. 1**, ► **Fig. 2**, ► **Video 1**). Three months later, computed tomography (CT) revealed dilation of the MPD due to the insufficient length of the stent passed through the MPD (► **Fig. 3**). Therefore, we planned to place another stent into the MPD from the jejunal side using balloon-assisted enteroscopy. Although the previous stent was unfortunately dislodged during scope insertion, the pancreaticojejunal anastomosis was easily detected and a 0.025-inch guidewire could be inserted. However,

the guidewire was directed only toward the stomach via the fistula. Thus, we used the uneven double-lumen cannula (Piolax Medical Devices Inc., Yokohama, Japan) and succeeded in placing another guidewire into the distal MPD (► **Fig. 4**). Finally, a 7-Fr plastic stent was placed (► **Fig. 5**, ► **Video 1**). One month later, CT revealed disappearance of the MPD dilation.

This is the first report of two-step pancreatic duct stenting with EUS and balloon-assisted enteroscopy for PJS. When PJS and the puncture site under EUS are adjacent and a placed stent does not function adequately, this two-step approach is very effective. The uneven double-lumen cannula has also been reported as an “uneven method” for patients with bile duct cannulation difficulties [1]. When the previous fistula is easily cannulated, but not the targeted MPD, the uneven double-lumen cannula is also useful for selective insertion.

Endoscopy_UCTN_Code_TTT_1AR_2AG



► **Fig. 4** Fluoroscopic image showing success of guidewire insertion into the main pancreatic duct (MPD) with a double-lumen cannula (arrowhead: guidewire into the stomach; arrow: guidewire into the MPD).



► **Fig. 5** Fluoroscopic image after the second pancreatic stenting under balloon-assisted enteroscopy guidance.

Competing interests

The authors declare that they have no conflict of interest.

The authors

Kosuke Nagai, Masaki Kuwatani, **Yunosuke Takishin**, **Ryutaro Furukawa, Hajime Hirata, Kazumichi Kawakubo, Naoya Sakamoto**
Department of Gastroenterology and Hepatology, Hokkaido University Hospital, Sapporo, Japan

Corresponding author

Masaki Kuwatani, MD
Department of Gastroenterology and Hepatology, Hokkaido University Hospital, North 14, West 5, Kita-ku, Sapporo 060-8648, Japan
mkuwatan@med.hokudai.ac.jp

Reference

- [1] Takenaka M, Yamao K, Kudo M. Novel method of biliary cannulation for patients with Roux-en-Y anastomosis using a unique, uneven, double-lumen cannula (Uneven method). *Dig Endosc* 2018; 30: 808–809

Bibliography

Endoscopy 2023; 55: E183–E184
DOI 10.1055/a-1959-1416
ISSN 0013-726X
published online 11.11.2022
© 2022. The Author(s).

This is an open access article published by Thieme under the terms of the Creative Commons Attribution-NonDerivative-NonCommercial License, permitting copying and reproduction so long as the original work is given appropriate credit. Contents may not be used for commercial purposes, or adapted, remixed, transformed or built upon. (<https://creativecommons.org/licenses/by-nc-nd/4.0/>)
Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany



ENDOSCOPY E-VIDEOS
<https://eref.thieme.de/e-videos>



Endoscopy E-Videos is an open access online section, reporting on interesting cases

and new techniques in gastroenterological endoscopy. All papers include a high quality video and all contributions are freely accessible online. Processing charges apply (currently EUR 375), discounts and wavers acc. to HINARI are available.

This section has its own submission website at
<https://mc.manuscriptcentral.com/e-videos>