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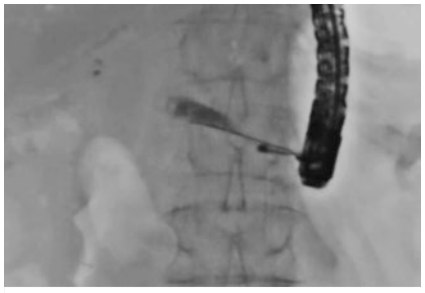
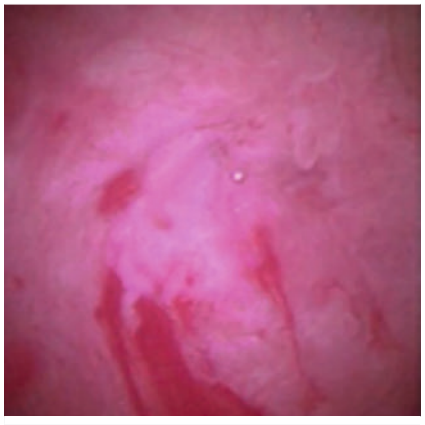
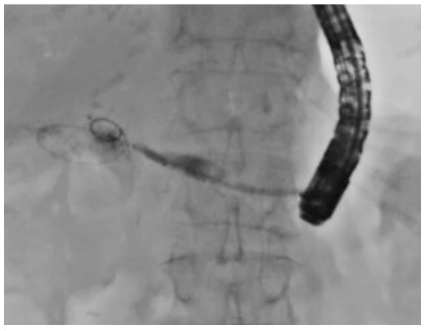
Technical tips for antegrade endopancreatic radiofrequency ablation for severe pancreatojejunal stricture



▶ **Fig. 1** Antegrade insertion of a pancreatoscope in treatment of pancreatojejunal stricture (PJS) in a patient who had undergone pancreatoduodenectomy 1 year previously.



▶ **Fig. 2** The stricture is confirmed as being a benign tight PJS.

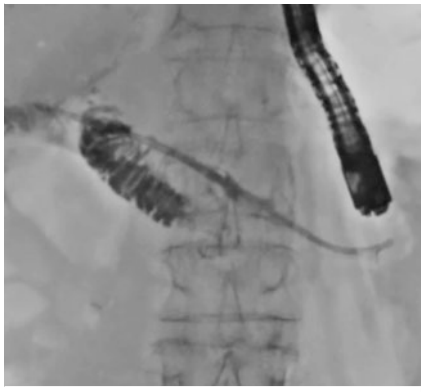


▶ **Fig. 3** Endopancreatic radiofrequency ablation (RFA) is attempted.

Pancreatojejunal stricture (PJS) is one of the late adverse events after pancreatoduodenectomy, and can lead to pancreatitis or endocrine pancreatic insufficiency as complications [1]. PJS is usually treated under enteroscopic guidance [2], although, because of the relatively low technical success rate and prolonged procedure time, an endoscopic ultrasound (EUS)-guided transluminal approach has recently been developed for pancreatic disease [3]. However, in cases of severe PJS, guidewire passage through the PJS into the intestine under the EUS-guided approach might be challenging, since the PJS site cannot be directly visualized. To overcome this issue, a technique involving antegrade transluminal pancreatoscope insertion has been developed. However, despite successful guidewire passage, PJS dilation might still be challenging because the pushing force might be lower in the EUS-guided approach than the enteroscopic approach. Although electrocautery dilation is a useful technique [4], recurrence of PJS is possible since the burning effect is small. On the other hand, endobiliary radiofrequency ablation (RFA) can sufficiently burn fibrotic tissue [5]. We herein describe a novel technique for PJS treatment using RFA with a pancreatoscope.

A 77-year-old man had undergone pancreatoduodenectomy 1 year earlier for cholangiocarcinoma. At his current presentation, he was admitted to our hospital for acute pancreatitis due to PJS. First, EUS-guided pancreatic duct drainage using a plastic stent was performed. Then 2 weeks later, PJS treatment was attempted. First, guidewire passage through the PJS into the intestine was attempted, although with no success. Thereafter, a pancreatoscope (eyeMax; Micro-Tech, Nanjing, China) was antegradely inserted (▶ **Fig. 1**). The stricture was confirmed as being a benign tight PJS (▶ **Fig. 2**). Next, since the endoscopic retrograde cholangiopancreatography (ERCP) catheter could not be inserted into the intestine through the PJS site, endopancreatic RFA was attempted (▶ **Fig. 3**). Subsequently, the pancreatoscope was inserted and dilation of the PJS was achieved without bleeding or perforation (▶ **Fig. 4**). Finally, a plastic stent

▶ **Fig. 4** The pancreatoscope is inserted and dilation of the PJS is achieved without bleeding or perforation.



▶ **Fig. 5** A plastic stent is deployed.

Video 1 Antegrade endopancreatic radiofrequency ablation for severe pancreatojejunal stricture.

was deployed (▶ **Fig. 5**; ▶ **Video 1**). No recurrence of PJS or adverse events were observed at the 1-year follow-up.

In conclusion, the presented technique might be useful for the treatment of severe PJS, although further evaluation of additional cases is required to confirm our results.

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Conflict of Interest

The authors declare that they have no conflict of interest.

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References

[1] Zarzavadjian Le Bian A, Cesaretti M, Tabchouri N et al. Late pancreatic anastomosis stricture following pancreaticoduodenectomy: a systematic review. J Gastrointest Surg 2018; 22: 2021–2028
[2] Sano I, Katanuma A, Kuwatani M et al. Long-term outcomes after therapeutic endoscopic retrograde cholangiopancreatography using balloon-assisted enteroscopy for anastomotic stenosis of choledochojejunostomy/pancreaticojejunostomy. J Gastroenterol Hepatol 2019; 34: 612–619. doi:10.1111/jgh.14605
[3] Ogura T, Higuchi K. Endoscopic ultrasound-guided hepaticogastrostomy: technical review and tips to prevent adverse events. Gut Liver 2021; 15: 196–205. doi:10.5009/gnl20096
[4] Ogura T, Nakai Y, Iwashita T et al. Novel fine gauge electrocautery dilator for endoscopic ultrasound-guided biliary drainage: experimental and clinical evaluation study (with video). Endosc Int Open 2019; 7: E1652–E1657
[5] Ogura T, Onda S, Sano T et al. Evaluation of the safety of endoscopic radiofrequency ablation for malignant biliary stricture using a digital peroral cholangioscope (with videos). Dig Endosc 2017; 29: 712–717

Bibliography

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