



Successful cannulation of a difficult pancreatic duct using the uneven method

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INTRODUCTION

ERCP is an essential technique for the treatment and diagnosis of pancreatic diseases. Although various methods have been reported for difficult biliary cannulation, the methods for difficult pancreatic cannulation have been rarely discussed. The uneven double-lumen cannula (UDLC; Piolax Medical Device, Inc, Kanagawa, Japan) is a unique catheter with double lumens measuring 0.025 and 0.035 inches in diameter (ie, the orifice of each lumen is uneven). The usefulness of a novel biliary cannulation method for difficult cannulation cases using UDLC, hereafter referred to as the “uneven method,” has been reported.^{1,2} However, the usefulness of UDLC for difficult pancreatic cannulation has not been reported. Herein, we report a case of successful pancreatic duct cannulation for a patient with challenging cannulation via application of the uneven method (Figs. 1 and 2; Video 1, available online at www.videogie.org).

PROCEDURE

A 59-year-old man visited our hospital for further examination of his main pancreatic duct stenosis in the pancreatic body, detected by MRCP (Fig. 3). Magnetic resonance imaging showed no mass lesion in the pancreas. EUS also showed no mass lesion. Because pancreatic carcinoma in situ was suspected, ERCP was performed for cytology (Fig. 4). Because of the winding of the ampullary pancreatic duct, selective pancreatic cannulation was difficult, even though bile duct cannulation was successful (Fig. 5). We performed endoscopic sphincterotomy and attempted the

multiple double-wire method, but pancreatic duct cannulation was not successful. Because the uneven method is useful for straightening and stabilizing the bile duct and the pancreatic duct, we conceived the idea that it could also be used for pancreatic cannulation and attempted it. Initially, UDLC was inserted using the bile duct guidewire in the proximal lumen. The distal lumen spontaneously turned to the lower right of the biliary orifice (Fig. 6). The catheter was advanced toward the ampulla of Vater, fitting the axis of the pancreatic duct. By lightly pressing the catheter against the main papilla, the papilla was stabilized, and the pancreatic duct was straightened (Fig. 7). In this case, deep insertion of the guidewire (0.025-inch VisiGlide 2; Olympus, Tokyo, Japan) into the pancreatic duct was achieved easily (Fig. 8).

OUTCOME

Pancreatography revealed the stenosis of the main pancreatic duct in the body (Fig. 9). The guidewire can cross the stenosis of the main pancreatic duct, and pancreatic ductal brush cytology (Boston Scientific Corp, Natick, Mass, USA) and 5F endoscopic nasopancreatic drainage (Gadelius Medical, Tokyo, Japan) were then performed with no adverse events. Endoscopic nasopancreatic drainage was placed to collect pancreatic juice for 1 day.³ We arrived at a definitive diagnosis of pancreatic carcinoma in situ at the pancreatic body.

CONCLUSION

We experienced a case in which selective pancreatic duct cannulation was difficult but successfully achieved using UDLC.

DISCLOSURE

The authors disclosed no financial relationships relevant to this publication.

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Abbreviations: UDLC, uneven double-lumen cannula.

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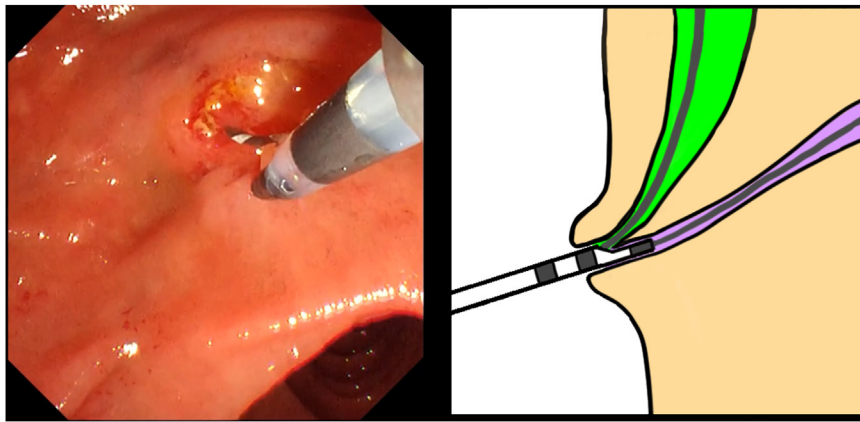


Figure 1. Key images and schema of pancreatic duct cannulation using the uneven method.



Figure 2. Graphic of the uneven double-lumen cannula.

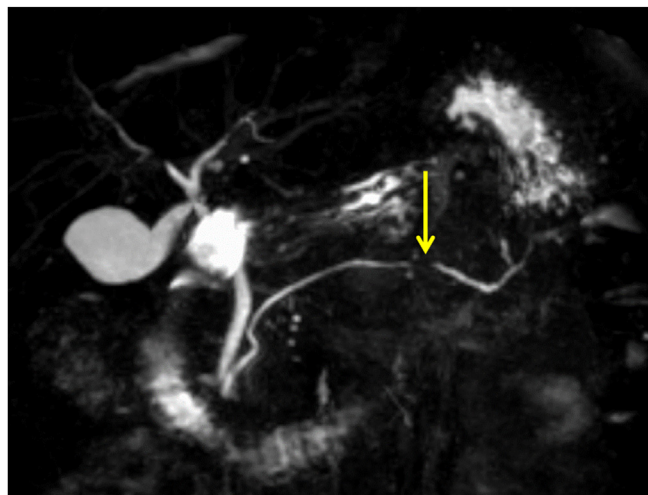


Figure 3. MRCP showed stenosis of the main pancreatic duct in the pancreatic body (*yellow arrow*).

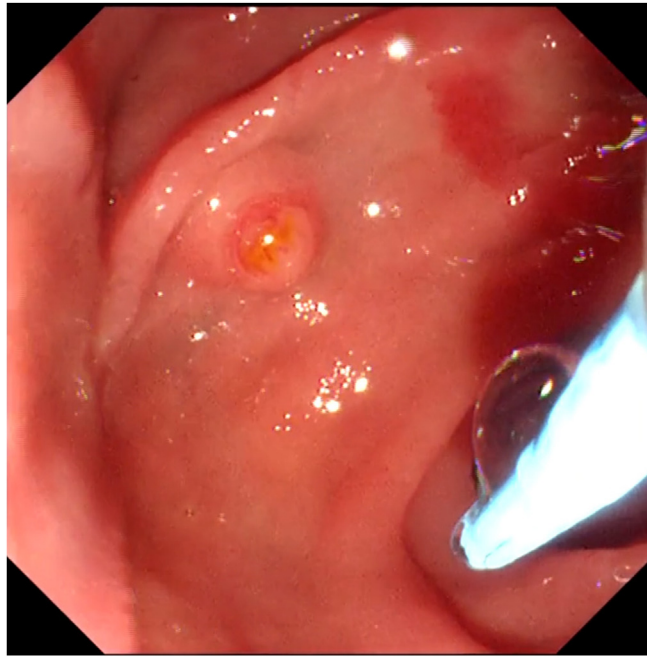


Figure 4. Endoscopic image of the main papilla before cannulation.

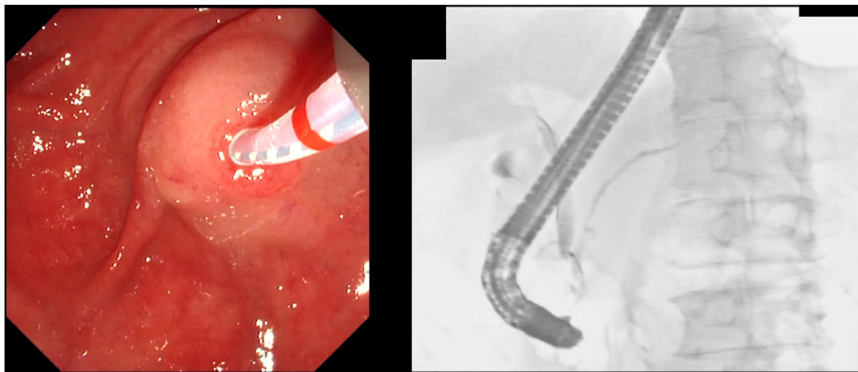


Figure 5. Endoscopic and fluoroscopic images during bile duct cannulation.

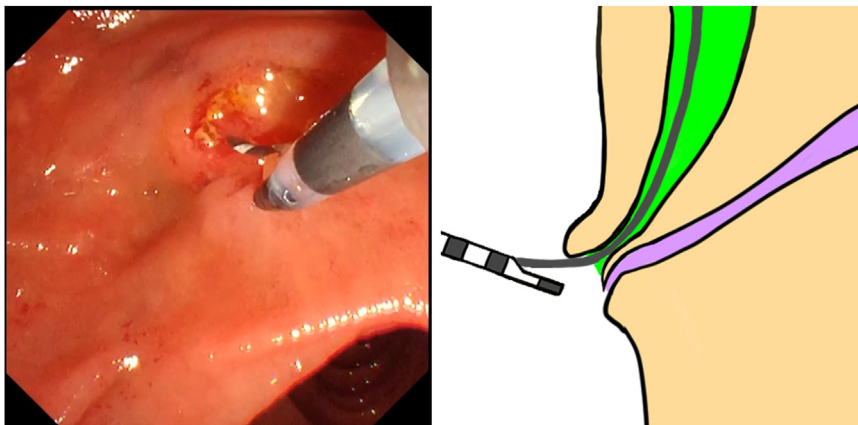


Figure 6. The distal lumen of the uneven double-lumen cannula spontaneously turned to the lower right of the biliary orifice.

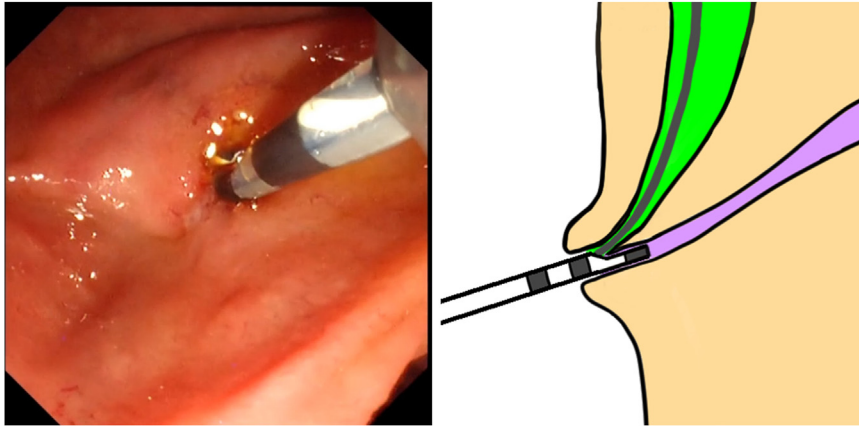


Figure 7. The papilla was stabilized, and the pancreatic duct was straightened by the uneven double-lumen cannula.

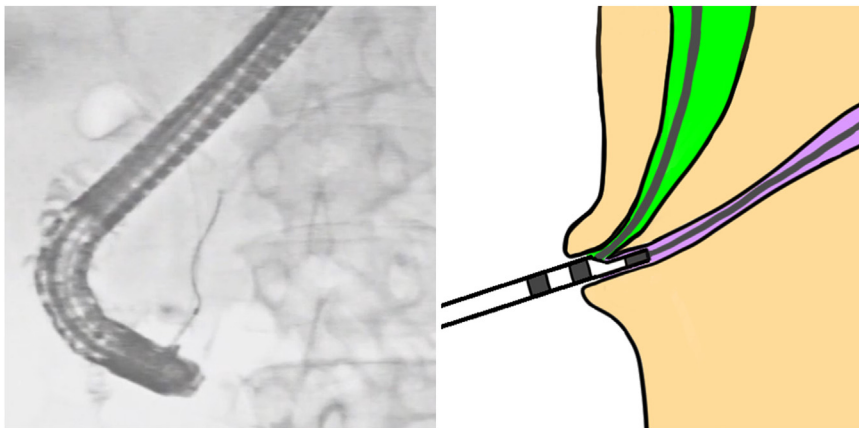


Figure 8. The deep insertion of the guidewire into the main pancreatic duct.

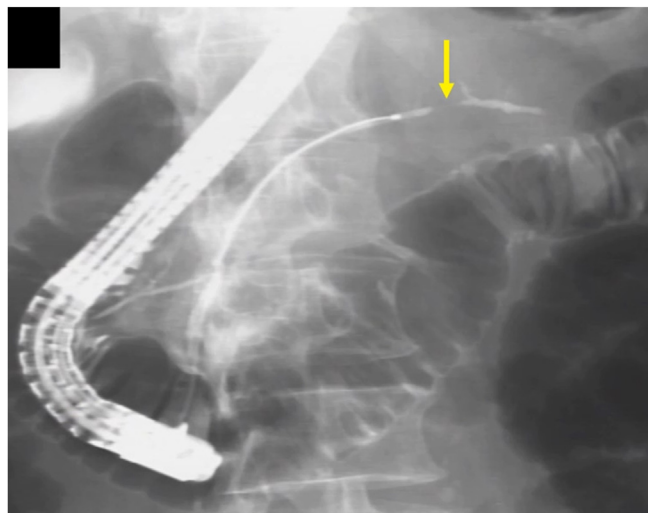


Figure 9. Pancreatography showed stenosis of the main pancreatic duct in the body (*yellow arrow*).

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