Endoscopic ultrasound-guided pancreatic duct drainage using a novel fine-gauge electrocautery dilator

Endoscopic ultrasound-guided pancreatic duct drainage (EUS-PD) is an alternative technique that can be performed after endoscopic transpapillary pancreatic duct drainage fails [1]. During EUS-PD procedures, needle tract dilation remains a challenge. Recently, a novel fine-gauge electrocautery dilator (Fine025; Medico’s Hirata Inc., Osaka, Japan) has become available in Japan (▶ Fig. 1). The distal end of the outer dilator contains a metal tip. The top of this tip is only 3 Fr, allowing a smaller burning effect [2]. We describe EUS-PD using this dilator in a patient with hard pancreatic parenchyma.

A 64-year-old man was admitted to our hospital for acute pancreatitis due to a stone at the pancreatic head (▶ Fig. 2). After the acute pancreatitis had improved using conservative therapy, endoscopic transpapillary treatment was attempted for the stone. However, a guidewire could not be passed because of the stricture of the pancreatic duct and the stone. As acute pancreatitis could have reoccurred, we decided to perform EUS-PD. The dilated main pancreatic duct (MPD) was first viewed using an echoendoscope, then the MPD was punctured using a 19-gauge needle (Sono Tip Pro Control; Medi-Globe, Rosenheim, Germany). A 0.025-inch guidewire (VisiGlide 2; Olympus Medical Systems, Tokyo, Japan) was inserted into the MPD through the needle (▶ Fig. 3). Dilation of the needle tract using a mechanical dilator (ES dilator; Zeon Medical Co. Ltd., Tokyo, Japan) was difficult because the pancreatic parenchyma and the MPD wall were very hard. A novel fine-gauge electrocautery dilator (Fine025) was then used. Dilation of the needle tract was successful; a 7-Fr plastic stent (Type IT; Gadelius Medical Co. Ltd., Tokyo, Japan) was placed from the MPD to the stomach (▶ Video 1).

This case suggests that this fine-gauge cautery dilator can be useful for tract dilation during EUS-PD procedures. Further studies on a large number of cases will be needed to validate its safety and efficacy.

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▶ Fig. 1 Photograph showing the novel fine-gauge electrocautery dilator (Fine025), which is wire-guided and coaxial with the 0.025-inch guidewire. The distal end of the outer dilator has a metal tip, the top of which is 3-Fr.

▶ Fig. 2 Computed tomography scan showing the stone in the main pancreatic duct at the pancreatic head (red arrow).

▶ Fig. 3 Radiographic image during endoscopic ultrasound-guided pancreatic duct drainage showing the guidewire, which had been passed through the needle into the main pancreatic duct, and the stone at the pancreatic head (red arrow).

▶ Video 1 Endoscopic ultrasound-guided pancreatic duct drainage is performed using a novel fine-gauge cautery dilator in a patient with a stricture of the pancreatic duct and stone at the pancreatic head.
Competing interests

None

The authors

Koichiro Mandai, Koji Uno, Kenjiro Yasuda
Department of Gastroenterology, Kyoto Second Red Cross Hospital, Kyoto, Japan

Corresponding author

Koichiro Mandai, MD
Department of Gastroenterology, Kyoto Second Red Cross Hospital, 355-5 Haruobicho, Kamigyo-ku, Kyoto 602-8026, Japan
Fax: +81-75-2563451
mndkchr@gmail.com

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