

Endoscopic ultrasound-guided pancreatic pseudocyst drainage using a drill dilator ▶

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▶ **Fig. 1** The drill dilator Tornus ES (Asahi Intec Co., Ltd., Aichi, Japan) is a flexible device with a blunt, rounded tip that can be advanced with clockwise rotation and removed with counterclockwise rotation.



▶ **Fig. 2** Contrast-enhanced computed tomography revealed a severely distended stomach with a fluid-filled cyst obstructing the duodenal bulb (arrows).

The Tornus ES drill dilator (Asahi Intec Co., Ltd., Aichi, Japan) has been used successfully in various endoscopic ultrasound (EUS)-guided procedures requiring tract dilation (▶ **Fig. 1**) [1, 2, 3, 4, 5]. Tract dilation in endoscopic ultrasound-guided transmural cyst drainage (EUS-CD) can also prove difficult due to inflamed, thickened gastric or duodenal walls. Endoscopic devices that fail to pass through the tract may put pressure on the gastrointestinal wall, potentially compromising scope position and increasing fluid leakage into the peritoneal cavity. Herein, we report successful tract dilation with Tornus ES during EUS-CD for a pancreatic pseudocyst that caused duodenal obstruction.

A 53-year-old woman presented with acute onset abdominal pain and vomiting. She had a history of bilateral mastectomy for breast cancer, with no signs of recurrence. Contrast-enhanced computed tomography revealed a severely distended stomach with a 5×3-cm fluid-filled cyst obstructing the duodenal bulb (▶ **Fig. 2**) and a pancreatic head mass obstructing the bile and pancreatic ducts. She was diagnosed with obstruction of the duodenal bulb due to a pancreatic pseudocyst secondary to malignant pancreatic duct obstruction and EUS-CD was planned (▶ **Video 1**). A cyst surrounded by a thick wall (5 mm) was visualized

from the bulbus with an endoscope (▶ **Fig. 3a**). The cyst was punctured with a 19G needle. To dilate the puncture site without applying forward pressure that could lead to pancreatic fluid leak, Tornus ES was used to dilate the puncture route (▶ **Fig. 3b**). Clockwise rotation by the assistant led to smooth tract dilation with no forward pressure on the cystic wall. After additional dilation with a balloon dilator, a plastic stent was successfully deployed within the cyst (▶ **Fig. 3c**, ▶ **Fig. 3d**). The procedure was completed without complications, and the patient was started on a liquid diet 3 days later.

Conclusions

Tornus ES may be a useful device for tract dilation in EUS-CD.

Conflict of Interest

The authors declare that they have no conflict of interest.



▶ **Fig. 3** a A fluid-filled pseudocyst with a thick wall was confirmed on endoscopic ultrasound. b Tract dilation using a drill dilator. c Fluoroscopic view after plastic stent placement. d Plastic stent protruding into the pylorus on second-look endoscopy.

 VIDEO

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Takeshi Okamoto, PhD
Manabu Yamada, MD
Naoki Sasahira, MD, PhD

Cancer Institute Hospital of Japanese Foundation for Cancer Research
Tokyo, Japan



► **Video 1** Endoscopic ultrasound-guided pancreatic pseudocyst drainage using a drill dilator.

The authors

Takeshi Okamoto¹, **Manabu Yamada¹**, **Naoki Sasahira²**

- Hepato-Biliary-Pancreatic Medicine, Public Interest Incorporated Foundation Japanese Foundation for Cancer Research, Koto-ku, Japan
- Gastroenterology, Gan Kenkyukai Ariake Byoin, Koto-ku, Japan

Corresponding author

Dr. Takeshi Okamoto

Public Interest Incorporated Foundation
Japanese Foundation for Cancer Research,
Hepato-Biliary-Pancreatic Medicine, 3-8-31
Ariake, 135-8550 Koto-ku, Japan
tak@afia.jp

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