Endoscopic ultrasound-guided drainage using a forward-viewing echoendoscope for peripancreatic fluid collection after Child resection

Peripancreatic fluid collection (PFC) due to pancreatic leakage is one of the significant complications arising following pancreatic surgery. Although endoscopic ultrasound (EUS)-guided drainage is less invasive than other methods in treating PFCs, it requires the drainage area to be in contact with the gastrointestinal tract accessible by the echoendoscope [1]. In patients with surgically altered anatomy, an oblique-viewing echoendoscope, which is mainly used for EUS-guided drainage, encounters technical difficulties in the jejunum. Recently, the usefulness of a forward-viewing echoendoscope in such cases has been reported [2, 3].

We experienced a case of afferent limb syndrome due to postoperative PFC at the pancreaticojejunostomy site of a modified Child resection in a 70-year-old man (▶ Fig. 1). As the fluid collection was remotely located from the stomach (▶ Fig. 2), and the afferent limb was in close proximity (▶ Fig. 3), EUS-guided drainage was attempted using a forward-viewing echoendoscope (TGF-UC260J; Olympus Optical, Tokyo, Japan) (▶ Video 1). Confirming the direction to reach the afferent limb was made relatively easy using the forward-viewing echoendoscope. Based on computed tomography (CT) findings, the target fluid collection could be confirmed by EUS observation where the scope was withdrawn a few centimeters from the choledochojejunostomy anastomosis. A 19G needle was used for puncture, a guide wire was placed, and the puncture site was dilated using a 4-mm tapered balloon. For double-wire indwelling, a double-lumen catheter was used, and the procedure was completed with placement of both internal and external stents. Immediately following the procedure, the patient showed symptom improvement, and 2 months later CT confirmed complete disappearance of the PFC (▶ Fig. 4).

Conventional EUS-guided drainage predominantly employs an oblique-viewing echoendoscope, which presents considerable challenges and perforation risks when intubating in the afferent limb. In contrast, the forward-viewing echoendoscope
endoscope provides a superior and safer approach, offering precise echo-guided puncture determination.

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**Conflict of Interest**

The authors declare that they have no conflict of interest.

**The authors**

Takuya Ishikawa1, Kentaro Yamao2, Yasuyuki Mizutani2, Tadashi Iida1, Kota Uetsuki2, Masanao Nakamura2, Hiroki Kawashima2

1 Department of Gastroenterology and Hepatology, Nagoya University Graduate School of Medicine Faculty of Medicine, Nagoya, Japan

2 Department of Endoscopy, Nagoya University Hospital, Nagoya, Japan

**Corresponding author**

Takuya Ishikawa, MD, PhD
Department of Gastroenterology and Hepatology, Nagoya University Graduate School of Medicine, 65 Tsuruma-cho, Showa-ku, Nagoya, Aichi 466-8550, Japan

ishitaku@med.nagoya-u.ac.jp

**References**


**Bibliography**

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**Fig. 3** CT and the same image with overlaid schema showing the afferent limb and the fluid collection in close proximity.

**Fig. 4** CT taken 2 months following drainage showing complete disappearance of the fluid collection.