EUS-guided hepaticojejunostomy using a 22G needle and novel 0.018-inch guidewire (with video)

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EUS-guided hepaticojejunostomy (EUS-HJS) is usually indicated for malignant biliary obstruction with surgical altered anatomy such as Roux-en Y anastomosis.[1] However, because of the limited flexibility of up-angulation of the echoendoscope in the intestine, which is more confined compared with the stomach, EUS-HJS can be challenging. EUS-guided biliary drainage has recently been attempted in patients with malignant biliary obstruction and also in those with benign biliary disease.[2,3] Bile duct puncture may be difficult in such cases due to constriction of the intrahepatic bile duct. Therefore, EUS-HJS for patients with benign biliary disease and Roux-en Y anastomosis is extremely challenging. Use of a 22G needle enables easy puncture of the bile duct, but guidewire insertion can be challenging because it requires manipulation of a conventional guidewire that is not smooth. A novel stiff 0.018-inch guidewire has recently become available in Japan (Fielder; Olympus, Tokyo, Japan) [Figure 1]. The guidewire has a coiled tip that prevents the guidewire sticking to the fine needle aspiration needle, which is common when using conventional 0.018-inch guidewires. Here, we described technical tips for EUS-HJS using a 22G needle with the novel 0.018-inch guidewire.

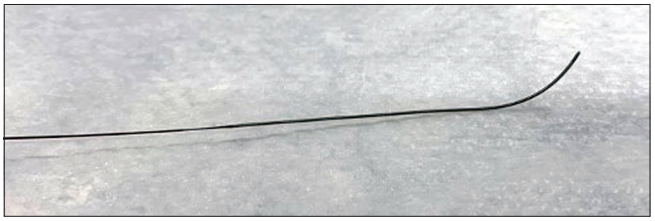

Figure 1. The novel 0.018-inch guidewire (Fielder, Olympus, Tokyo, Japan)

The intrahepatic bile duct was punctured using a 22G needle (EZ shot; Olympus Medical Systems, Tokyo, Japan), and contrast medium was injected [Figure 2]. The novel guidewire was then inserted into the intrahepatic bile duct. The coiled tip enabled the guidewire to be advanced into the common bile duct without sticking [Figure 3]. After tract dilation using an ultra-tapered mechanical dilator (EZ dilator; Zeon Medical, Tokyo, Japan) [Figure 4], a plastic stent was

Video available on: www.eusjournal.com

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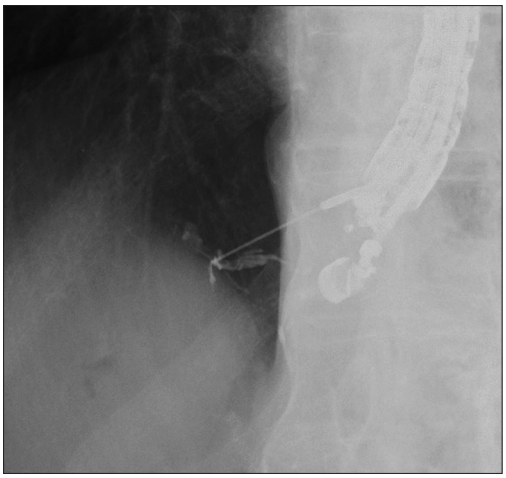

Figure 2. The intrahepatic bile duct is punctured using a 22G needle and contrast medium was injected to obtain a cholangiogram

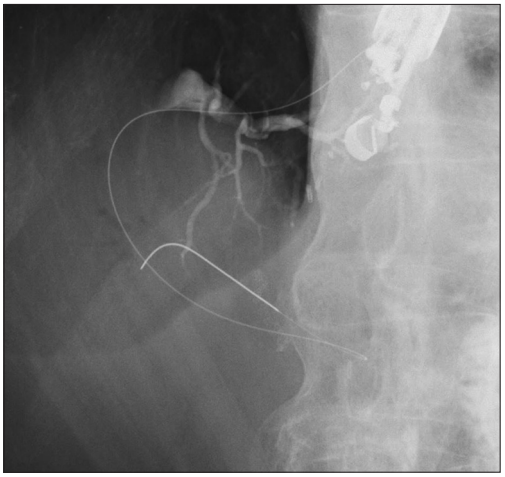

Figure 3. The novel guidewire is inserted into the common bile duct without sticking of the guidewire

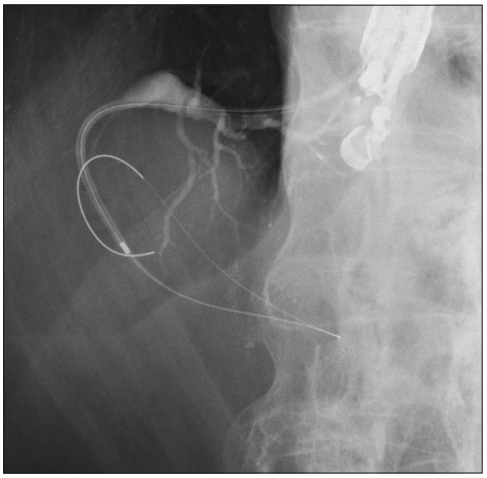

Figure 4. Tract dilation is performed using an ultra-tapered mechanical dilator

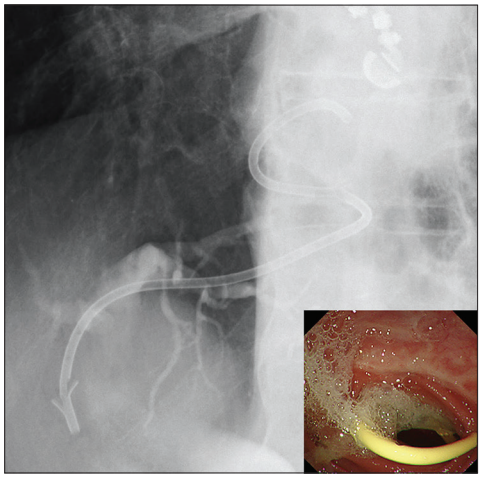

Figure 5. Stent deployment from the intrahepatic bile duct to the jejunum is performed

deployed from the intrahepatic bile duct to the jejunum without any adverse events [Figure 5 & Video 1].

In conclusion, a novel stiff 0.018-inch guidewire might be useful for guidewire insertion or manipulation during EUS-guided biliary drainage.

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Conflicts of interest
Takeshi Ogura is an Editorial Board Member of the journal. The article was subject to the journal's standard procedures, with peer review handled independently of this editor and his research groups.

REFERENCES

1. Ogura T, Higuchi K. Endoscopic ultrasound-guided hepaticogastrostomy: Technical review and tips to prevent adverse events. Gut Liver 2021;15:196-205.
2. Mukai S, Tsuchiya T, Itoi T. Interventional endoscopic ultrasonography for benign biliary diseases in patients with surgically altered anatomy. Curr Opin Gastroenterol 2019;35:408-15.
3. Ogura T, Nishioka N, Yamada M, Yamada T, Ueno S, Matsuno J, *et al.* Novel transluminal treatment protocol for hepaticojejunostomy stricture using covered self-expandable metal stent. Surg Endosc 2021;35:209-15.