Double-guidewire technique facilitates endoscopic ultrasound-guided biliary drainage for hilar biliary obstruction

A 74-year-old woman with a 2-year history of pancreaticoduodenectomy for pancreatic cancer was admitted to our hospital for treatment of obstructive jaundice due to a recurrent tumor, which divided the right and left hepatic ducts (RHD and LHD, respectively). Endoscopic ultrasound-guided biliary drainage (EUS-BD) was planned.

A curved linear EUS device was inserted into the stomach. Segment 2 of the dilated intrahepatic bile duct was punctured with a 19-gauge needle. A 0.025-inch guidewire (VisiGlide 2; Olympus, Tokyo, Japan) was then easily inserted into the LHD and the afferent limb. Subsequently, we inserted a single-lumen catheter along with the guidewire into the LHD; however, the guidewire could not be introduced into the RHD (▶ Fig. 1, Video 1). Therefore, we changed the catheter to a double-lumen cannula (Uneven double-lumen cannula [short type]; Piolax Medical Devices, Kanagawa, Japan) and inserted a 0.025-inch hydrophilic guidewire (Radifocus; Terumo, Tokyo, Japan) into the LHD via the other lumen. The second guidewire could be manipulated to reach the RHD (▶ Fig. 2).

Subsequently, an uncovered metal stent (Bile Rush; Piolax Medical Devices) was used to bridge the right and left hepatic ducts beyond the hilar biliary stenosis, and a plastic stent was then deployed from the left hepatic duct to the stomach.

This document was downloaded for personal use only. Unauthorized distribution is strictly prohibited.
was inserted from the LHD to the stomach (Fig. 3). No adverse event was encountered and the jaundice resolved. EUS-BD using a single-lumen catheter is widespread; however, EUS-BD for hilar biliary obstruction is quite uncommon because guidewire manipulation is required to bridge the left and right biliary systems beyond the obstruction [1,2]. A double-guidewire technique using a double-lumen catheter can facilitate the procedure. The technique includes two rationales: first, the first guidewire prevents entry into the untargeted duct, and the second guidewire can be advanced towards the targeted duct. Second, the first guidewire serves as a landmark for the manipulation of the second guidewire.

Endoscopy_UCTN_Code_TTT_1AS_2AD

Competing interests

None

The authors

Hirotoshi Ishiwatari1, Tatsunori Satoh1, Junya Sato1, Junichi Kaneko1, Hiroyuki Matsubayashi1-2, Hiroyuki Ono1
1 Division of Endoscopy, Shizuoka Cancer Center, Shizuoka, Japan
2 Division of Genetic Medicine Promotion, Shizuoka Cancer Center, Shizuoka, Japan

Corresponding author

Hirotoshi Ishiwatari, MD, PhD
Division of Endoscopy, Shizuoka Cancer Center, 1007 Shimonagakubo Nagaizumicho, Sunto-gun, Shizuoka, Japan
Fax: +81-55-9895551
ishihiro481019@gmail.com

References


DOI https://doi.org/10.1055/a-0915-1917
Published online: 2019
Endoscopy
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X