

EUS-guided transhepatic metal stent deployment technique without tract dilation using a 0.018-inch guidewire (with video)

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Successful intrahepatic bile duct puncture is the first step in achieving technical success of EUS-guided hepaticogastrostomy (HGS).^[1,2] However, if the intrahepatic bile duct is not sufficiently dilated, bile duct puncture using a 19-gauge needle can sometimes be challenging. In addition, during tract dilation, bile leakage can occur. Therefore, if EUS-HGS can be performed using a 22-gauge needle without tract dilation, the technical success rate may be improved, and the occurrence of adverse events may also be decreased. Recently, a novel 0.018-inch guidewire (Fielder; Olympus, Tokyo, Japan)^[3] and partially covered self-expandable metal stent (PCSEMS) with a 7F stent delivery system (BileRush Advance; Piolax Medical, Kanagawa,

Japan)^[4] have become available in Japan. Technical tips for EUS-HGS using the novel PCSEMS with the new 0.018-inch guidewire without tract dilation have been described.

A 77-year-old man was admitted to our hospital because of obstructive jaundice caused by pancreatic head cancer. Although biliary drainage was performed, biliary cannulation failed. Consequently, EUS-HGS was attempted [Video 1]. First, the intrahepatic bile duct was identified on EUS, but the intrahepatic bile duct was not sufficiently dilated [Figure 1]. Because bile duct puncture using a 19-gauge needle failed, the intrahepatic bile duct was instead punctured using a 22-gauge needle. Contrast medium was then injected, and cholangiography was successfully performed [Figure 2]. Next, the new 0.018-inch guidewire was gently deployed into the common bile duct [Figure 3]. After the needle was removed, the stent delivery



Figure 1. The intrahepatic bile duct is not sufficiently dilated (arrow).

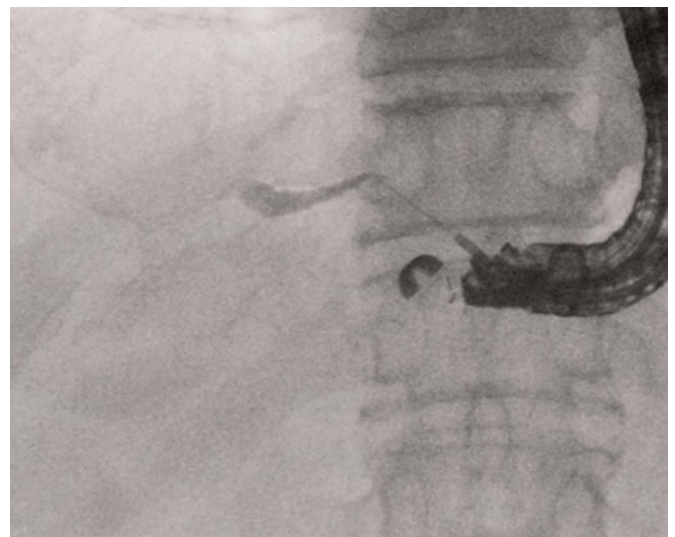


Figure 2. Cholangiography is successfully performed.

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system for the novel PCSEMS was successfully inserted into the intrahepatic bile duct without tract dilation [Figure 4]. Finally, stent deployment was also successfully achieved without any adverse events [Figure 5, Video 1].

In conclusion, the technique described might be useful not only for cases of insufficient bile duct dilation but also for the prevention of adverse events associated with bile leakage.



Figure 3. The novel 0.018-inch guidewire is deployed.

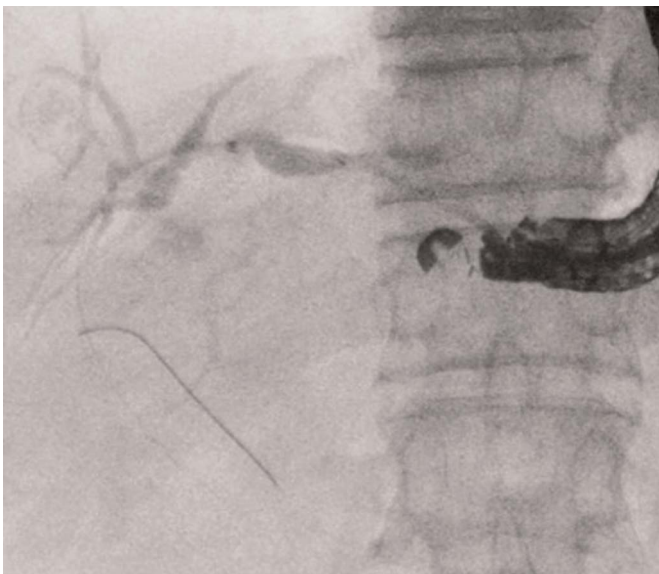


Figure 4. The stent delivery system is successfully inserted without tract dilation.

Video Legend

The intrahepatic bile duct is punctured using a 22-G needle, and contrast medium is injected. After obtaining a cholangiogram,

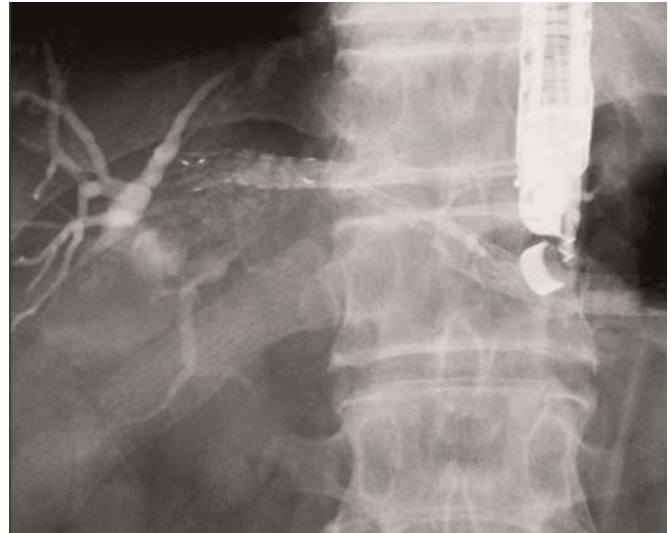


Figure 5. EUS-guided hepaticogastrostomy is performed.

the 0.018-inch guidewire is deployed. Then, the stent delivery system is successfully inserted without tract dilation, and EUS-guided hepaticogastrostomy is performed.

Videos are only available at the official website of the journal (www.eusjournal.com).

Declaration of Patient Consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given his consent for his images and other clinical information to be reported in the journal. The patient understands that his name and initials will not be published and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

Conflicts of Interest

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

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