Novel biliary drainage of a choledochojejunal anastomotic stenosis using a double-balloon endoscope and forward-viewing endoscopic ultrasound

Balloon-assisted enteroscopy (BAE) is used to drain biliary obstructions caused by choledochojejunal anastomotic stenosis (CJS) after digestive tract reconstruction. Endoscopic ultrasound-guided biliary drainage (EUS-BD) is an alternative when scope insertion to the anastomosis site by BAE is difficult [1–4]. However, EUS-BD is also difficult in post-left lobectomy patients generally. Here, we report a novel method of internal drainage that combined double-balloon endoscopy (DBE) and forward-viewing EUS for a posterior branch CJS following Roux-en-Y reconstruction.

A 70-year-old man developed obstructive cholangitis after extended left lobectomy and Roux-en-Y reconstruction for hilar cholangiocarcinoma. Anastomotic drainage by DBE was attempted for suspected CJS. The anterior and posterior branches had been anastomosed independently to the jejunum. The anterior branch anastomotic site was easily dilated (▶Fig. 1). However, a complete posterior-branch CJS prevented guidewire insertion (▶Fig. 2). A percutaneous transhepatic biliary drainage antegrade break-through for posterior-branch CJS also failed. DBE to the posterior-branch CJS through the anastomotic site was attempted but failed again, prompting an attempted EUS-BD with forward-viewing EUS from the anastomotic site. First, a guidewire (Revowave α; PIIOLAX, Yokohama, Japan) was inserted through the DBE forceps channel to the jejunum near the anastomotic site before the double-balloon endoscope was removed (▶Video 1). Next, the guidewire was inserted into the EUS forceps port for supported insertion, which enabled intubation near the posterior-branch CJS (▶Fig. 3). The posterior segmental branch was identified on forward-viewing EUS near the anastomotic site and punctured with a 19G fine-needle aspiration (FNA) needle, followed by cholangiography and guidewire placement (Visiglide2; Olympus, Tokyo, Japan) into the peripheral biliary duct according to the puncture angle. After balloon dilation of the anastomotic site (REN, 4-mm wide; Kane-ka Medix Corporation, Tokyo, Japan), a fully covered self-expanding metal stent...
(SEMS; 8 × 60-mm fully covered SEMS; X suit NIR; Olympus) was placed in the posterior segmental branch via the jejunal fistula site (▶Fig. 4 and ▶Fig. 5). The patient’s jaundice and inflammation improved without complications.

Endoscopy_UCTN_Code_TTT_1AS_2AD

Acknowledgments

This work was supported in part by The National Cancer Center Research and Development Fund (31-A-13).

Competing interests

The authors declare that they have no conflict of interest.

The authors

Kosuke Maehara1, Susumu Hijioka1, Taku Sakamoto2, Yuta Maruki1, Kiichi Tamada2, Takuji Okusaka1, Yutaka Saito2

1 Department of Hepatobiliary and Pancreatic Oncology, National Cancer Center Hospital, Tokyo, Japan
2 Endoscopy Division, National Cancer Center Hospital, Tokyo, Japan
3 Department of Medicine, Division of Gastroenterology, Jichi Medical University, Tochigi, Japan

Corresponding author

Susumu Hijioka, MD
Department of Hepatobiliary and Pancreatic Oncology, National Cancer Center Hospital, 5-1-1 Tsukiji, Chuo-ku, Tokyo, Japan
Fax: +81-3-35423815
shijioka@ncc.go.jp

References


Bibliography

Endoscopy 2021; 53: E242–E244
DOI 10.1055/a-1247-4469
ISSN 0013-726X
published online 23.9.2020
© 2020. Thieme. All rights reserved.
Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany

**ENDOSCOPY E-VIDEOS**
https://eref.thieme.de/e-videos

Endoscopy E-Videos is a free access online section, reporting on interesting cases and new techniques in gastroenterological endoscopy. All papers include a high quality video and all contributions are freely accessible online.

This section has its own submission website at https://mc.manuscriptcentral.com/e-videos