Two-step endoscopic ultrasound-guided drainage of an isolated posterior bile duct because of an enlarged gallbladder

An 83-year-old man with hilar cholangiocarcinoma who had undergone multiple metal stent placements for hilar biliary obstruction 15 months previously was admitted to our hospital for treatment of cholangitis. Contrast-enhanced computed tomography revealed dilatation of the right posterior duct, indicating that the isolated posterior duct was causing focal cholangitis.

First, we attempted biliary drainage using endoscopic retrograde cholangiopancreatography (ERCP), but this failed because a guidewire could not be passed through the metal stent. Subsequently, we planned endoscopic ultrasound-guided biliary drainage (EUS-BD) of the duct from the duodenal bulb; however, avoiding the enlarged gallbladder to puncture the posterior duct under EUS guidance was impossible (▶Fig. 1 a). We therefore placed a 6-Fr nasocystic drainage tube under EUS guidance in an attempt to improve the situation (▶Fig. 1 b). After 4 days, the gallbladder had shrunk, and the interposed gallbladder between the EUS and posterior duct had disappeared (▶Fig. 2). We punctured the posterior duct using a 19G needle, inserted a guidewire, dilated a tract, and then placed a covered metal stent that was 10 mm in diameter and 6 cm in length with a 1-cm uncovered portion at the distal end (bare-end type, Niti-S biliary S-type; Taewoong Corporation, Seoul, Korea) (▶Fig. 3), with successful drainage of pus (▶Fig. 4; ▶Video 1). The patient’s cholangitis improved following the procedure, and there was no recurrence in the next 4 months.

EUS-BD for isolated right hepatic duct (RHD) obstruction was recently reported [1]; however, an enlarged gallbladder that is interposed between the echoendoscope and the target duct sometimes hampers the procedure. This situation may arise where cancer is invading the cystic duct. In such cases, drainage of the gallbladder under EUS guidance can facilitate EUS-BD of the RHD, and the strategy should be considered as a potential method of troubleshooting for EUS-guided isolated RHD drainage. The method helps avoid percutaneous drainage, which is known to lead to a deterioration in quality of life for advanced cancer patients.

Sato Junya et al. EUS-guided drainage of isolated posterior bile duct... Endoscopy 2019; 51: E347–E348

Endoscopy_UCTN_Code_TTT_1AS_2AG
Competing interests
None

The authors
Junya Sato1, Hirotoshi Ishiwatari1, Tatsunori Satoh1, Shinya Fujie1, Junichi Kaneko1, Hiroyuki Matsubayashi1,2, Hiroyuki Ono1
1 Division of Endoscopy, Shizuoka Cancer Center, Shizuoka, Japan
2 Familial Cancer Clinic, Shizuoka Cancer Center, Shizuoka, Japan

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

Reference

Bibliography
DOI https://doi.org/10.1055/a-0929-4182
Published online: 7.6.2019
Endoscopy 2019; 51: E347–E348
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

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

Video 1 The enlarged gallbladder is shown hindering access to the right posterior duct; however, endoscopic ultrasound (EUS)-guided drainage of the duct was successful after EUS-guided gallbladder drainage.

Fig. 4 Endoscopic image showing pus draining via the metal stent.