Endoscopic transpapillary gallbladder stenting for acute cholecystitis using a novel integrated inside biliary stent and nasobiliary drainage catheter system

A novel integrated inside biliary stent and dedicated nasobiliary drainage catheter system (UMIDAS NB stent; Olympus Medical Systems, Tokyo, Japan) has been recently developed in Japan. The 7-Fr biliary stent placed over a 4-Fr nasobiliary drainage catheter can be deployed simultaneously using a dedicated pushing catheter over the guidewire [1] (Fig. 1). Here, we describe a case of successful endoscopic transpapillary gallbladder stenting for acute cholecystitis using this drainage system.

A 77-year-old man, who underwent endoscopic sphincterotomy for biliary stones 2 months prior, was admitted for moderate gallstone-induced cholecystitis. Emergency cholecystectomy and percutaneous gallbladder drainage were considered high risk owing to percutaneous coronary intervention 1 month earlier, followed by dual antiplatelet therapy. Therefore, we performed endoscopic naso-gallbladder drainage using the novel integrated biliary stent and nasobiliary drainage catheter system (Fig. 2). We then performed gallbladder irrigation with saline via the nasobiliary drainage catheter, as appropriate.

A cholecystogram via the nasobiliary drainage catheter performed 2 days later showed contrast medium drained from the gallbladder into the lower bile duct and duodenum (Fig. 3). After acute cholecystitis improved 7 days later, the nasobiliary drainage catheter, stretched using a 0.025-inch guidewire (VisiGlide 2; Olympus Medical Systems), was removed and the biliary stent was placed from the gallbladder to the common bile duct as a bridge to cholecystectomy under fluoroscopic guidance (Fig. 4, Video 1). The patient was discharged without any adverse events on post-endoscopic naso-gallbladder drainage day 10.

This case suggests that this novel integrated inside biliary stent and dedicated nasobiliary drainage catheter system may be useful for endoscopic transpapillary gallbladder drainage, because it allows gallbladder irrigation via the nasobiliary drainage catheter and allows...
switching from external drainage to internal stenting without another endoscopic procedure. Further studies involving many cases are needed to validate its safety and efficacy.

Endoscopy_UCTN_Code_TTT_1AO_2AH

Competing interests
The authors declare that they have no conflict of interest.

The authors
Koichiro Mandai, Takuji Kawamura, Koji Uno, Kenjiro Yasuda
Department of Gastroenterology, Kyoto Second Red Cross Hospital, Kyoto, Japan

Reference

Corresponding author
Koichiro Mandai, MD
Department of Gastroenterology, Kyoto Second Red Cross Hospital, 355-5 Haruobicho, Kamigyoku-ku, Kyoto 602-8026, Japan
Fax: +81-75-256-3451
mndkchr@gmail.com

Bibliography
Endoscopy
DOI 10.1055/a-1512-8024
ISSN 0013-726X
published online 2021
© 2021, 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