

DEN Video Article

Endoscopic transpapillary gallbladder drainage using a tapered endoscopic sheath

Kazuya Koizumi,  Jun Kubota and Sakue Masuda 

Gastroenterology Medicine Center, Shonan Kamakura General Hospital, Kanagawa, Japan

BRIEF EXPLANATION

ENDOSCOPIC TRANSPAPILLARY GALLBLADDER drainage (ETGBD) is a useful treatment for poor surgical candidates with acute cholecystitis; however, its execution can be technically challenging. Although deep insertion of a stent or tube over the guidewire and into the gallbladder was difficult in our cases, ETGBD was successfully performed using a novel endoscopic tapered sheath (EndoSheather; Piolax, Kanagawa, Japan; Fig. 1, Video S1) that allows insertion of devices with diameters up to 6F through the outer sheath.^{1–5}

Case 1 was a 90-year-old woman with acute hemorrhagic cholecystitis. ETGBD was performed. Guidewire insertion into the gallbladder was feasible; however, sufficient insertion of a 5F endoscopic nasobiliary tube was difficult because of the looped guidewire in the gallbladder neck. Adequate insertion of the endoscopic tapered sheath

(external diameter: 7.2F) into the gallbladder was not possible; therefore, the inner catheter was removed, and the tube was successfully inserted into the fundus of the gallbladder through the outer sheath (inner diameter: 6.2F; Fig. 2). After her condition improved, the nasogallbladder tube was cut into the stomach, and she was discharged.

Case 2 was an 80-year-old man with acute cholecystitis. ETGBD was performed. Guidewire insertion into the gallbladder was successful; however, a 7F double-pigtail plastic stent beyond the narrow part of the gallbladder neck was not feasible. Moreover, the endoscopic tapered sheath could be inserted only before the narrow region even after dilation using a 7F bougie dilator, and the 6F stent was successfully placed through the outer sheath into the fundus of the gallbladder (Fig. 2).

Although the outer sheath did not pass through the stenosis, ETGBD was successful in these cases because it prevented the force on the tube and stent from moving

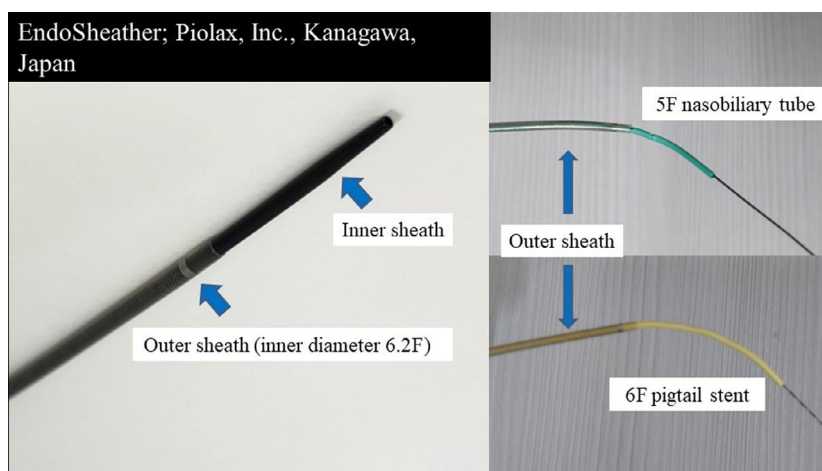


Figure 1 A novel endoscopic tapered sheath (EndoSheather; Piolax, Kanagawa, Japan) allows insertion of devices with diameters up to 6F through the outer sheath.

Corresponding: Kazuya Koizumi, Gastroenterology Medicine Center, Shonan Kamakura General Hospital, 1370-1 Okamoto, Kamakura, Kanagawa 247-8533, Japan. Email: kizm2010@gmail.com

Received 2 June 2023; accepted 26 June 2023.

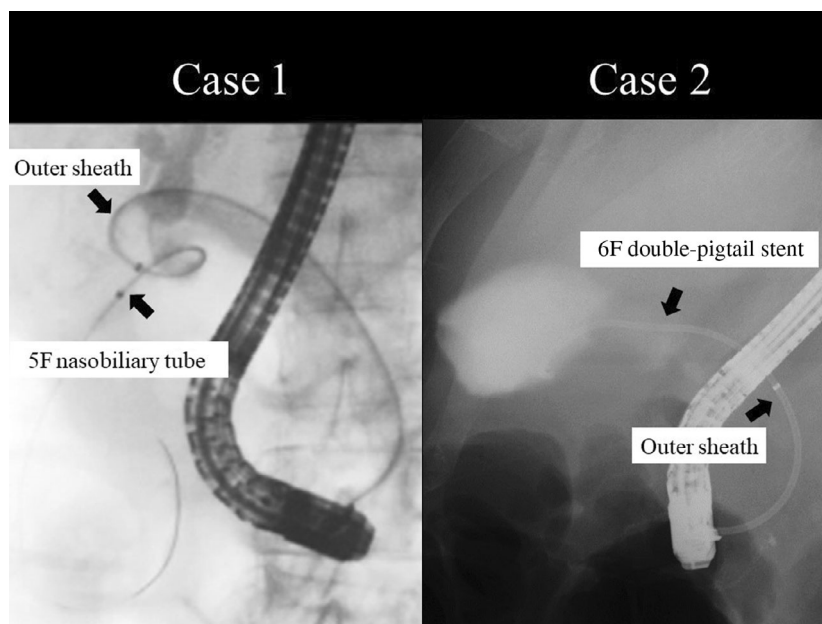


Figure 2 Fluoroscopic imaging shows a 5F endoscopic nasobiliary tube successfully inserted into the fundus of the gallbladder through the outer sheath (Case 1) and a 6F double-pigtail stent successfully placed through the outer sheath into the fundus of the gallbladder (Case 2).

them in various directions, thus making them more unidirectional.

Authors declare no conflict of interest for this article.

REFERENCES

- 1 Yane K, Sumiyoshi T, Kondo H *et al.* Transpapillary gallbladder biopsy using newly designed endoscopic sheath. *Dig Endosc* 2021; **33**: e146–7.
- 2 Kito Y, Kato A, Yoshida M *et al.* Facile and secure deployment of plastic stent through an endoscopic tapered sheath for endoscopic ultrasound-guided drainage. *Endoscopy* 2022; **54**: E674–5.
- 3 Kato A, Natsume M, Yoshida M *et al.* Endoscopic tapered sheath-assisted removal of a proximally migrated pancreatic stent. *Endoscopy* 2022; **54**: E767–8.
- 4 Ban T, Kubota Y, Hayashi K *et al.* A novel technique of endoscopic introducer-assisted transpapillary gallbladder aspiration prior to drainage in a patient with acute cholecystitis. *Endoscopy* 2023; **55**: E480–1.
- 5 Maruyama H, Higashimori A, Maeda N *et al.* Successful re-intervention using endoscopic ultrasound-guided drainage via an endoscopic tapered sheath for recurrent walled-off necrosis with fibrosis. *Endoscopy* 2023; **55**: E583–4.

SUPPORTING INFORMATION

ADDITIONAL SUPPORTING INFORMATION may be found in the online version of this article at the publisher's web site.

Video S1 Endoscopic transpapillary drainage performed using a tapered endoscopic sheath.