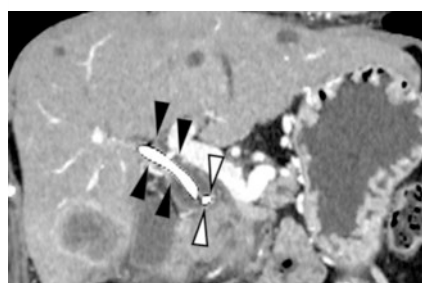
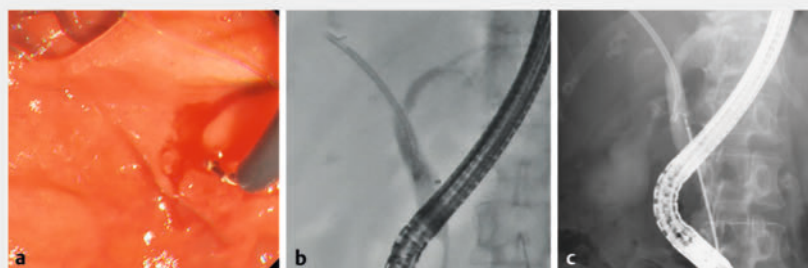


Successful removal of a migrated plastic stent using a new endoscopic sheath

OPEN
ACCESS



► **Fig. 1** Contrast-enhanced computed tomography revealed migration of a plastic stent (black arrowheads), with the distal end located above the stricture in the distal common bile duct. The proximal flap of the plastic stent is also seen (white arrowheads).



► **Fig. 2** EndoSheather is a new endoscopic sheath with an outer sheath diameter of 2.4 mm. The lumen of the outer sheath (after the inner sheath is removed) measures 2.1 mm in diameter, allowing various devices up to 1.9 mm (5.7Fr) in diameter to be inserted with ease. The inner sheath, made of high-density polyethylene, has a tapered tip that facilitates passage through stenoses. The EndoSheather has only been approved for use in Japan. **b** The tip of the EndoSheather was advanced to near the distal end of the plastic stent. **c** The proximal flap was successfully grasped by endoscopic forceps.

Migration of plastic stents after endoscopic biliary stenting (EBS) occurs in 5%–10% of patients [1]. We report successful removal of a migrated plastic stent using EndoSheather (Piolax, Inc., Kanagawa, Japan), a new endoscopic sheath designed to facilitate targeted biopsies of the biliary tree [2].

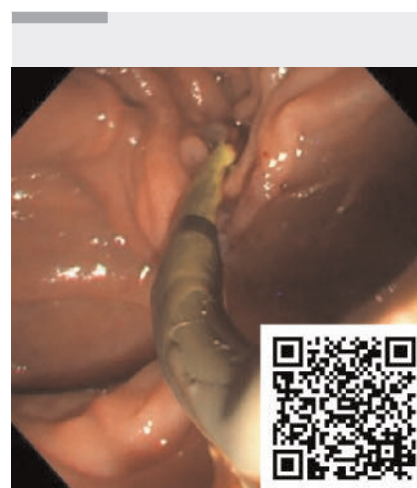
A 58-year-old woman with a history of EBS due to malignant biliary obstruction secondary to pancreatic cancer presented with fever and jaundice. Computed tomography revealed proximal migration of the plastic stent (► **Fig. 1**). Endoscopic retrograde cholangiopancreatography (ERCP) was performed for stent removal and biliary drainage (► **Video 1**). Fluoroscopy confirmed proximal migration of an 8.5-Fr, 5-cm straight plastic stent. Stent removal with biopsy forceps was first attempted but proved unsuccessful. An EndoSheather was then inserted into the common bile duct along a 0.025-inch guidewire. After removal of the inner catheter, forceps were advanced through the outer sheath. After slight pushing of the scope to align the axes of the migrated stent and the forceps, the proximal flap of the stent was grasped with the forceps (► **Fig. 2**). The stent was successfully removed together

with the EndoSheather and a double pig-tail plastic stent was placed across the papilla. No adverse events occurred. Options for removal of migrated biliary stents include basket catheters, balloon catheters, and forceps, but success rates are suboptimal. The EndoSheather has a tapered catheter tip that facilitates passage through stenoses and allows safe advancement of forceps to the desired location within the biliary tree. It also allows stent removal without requiring a guidewire to be maneuvered through the stent, as is necessary for stent removal using a drill dilator [3]. There have also been reports of the EndoSheather being used for removal of a migrated plastic stent [4] and for stent deployment during endoscopic ultrasound-guided biliary drainage [5].

Endoscopy_UCTN_Code_TTT_1AR_2AZ

Conflict of Interest

The authors declare that they have no conflict of interest.



► **Video 1** Successful removal of a migrated plastic stent using a new endoscopic sheath.

The authors

Manabu Yamada¹, Takeshi Okamoto¹, Naoki Sasahira¹

¹ Department of Hepato-Biliary-Pancreatic Medicine, Cancer Institute Hospital of Japanese Foundation for Cancer Research, Koto-ku, Japan

Corresponding author

Takeshi Okamoto, MD PhD

Department of Hepato-Biliary-Pancreatic
Medicine, Cancer Institute Hospital of
Japanese Foundation for Cancer Research,
Ariake 3-8-31, 135-8550 Tokyo, Japan
takeshi.okamoto@jfc.or.jp

References

- [1] Mehmet A, Bülent O, Erkan P et al. Migration of biliary plastic stents: experience of a tertiary center. *Surg Endosc* 2009; 23: 769–775
- [2] Matsumori T, Uza N, Shiokawa M et al. Clinical impact of a novel device delivery system in the diagnosis of bile duct lesions: a single-center experience. *Gastroenterol Hepatol* 2022; 37: 1360–1366 doi:10.1111/jgh.1586635434844
- [3] Ishida Y, Koga T, Tsuchiya N et al. Successful removal of a migrated biliary plastic stent using a novel spiral dilator. *Endoscopy* 2023; 55: E804–E805 doi:10.1055/a-2098-098237321269
- [4] Kato A, Natsume M, Yoshida M et al. Endoscopic tapered sheath-assisted removal of a proximally migrated pancreatic stent. *Endoscopy* 2022; 54: E767–E768 doi:10.1055/a-1792-295535359015

- [5] Kato A, Yoshida M, Hayashi K. Endoscopic ultrasound-guided covered metal stent deployment through endoscopic tapered sheath preventing bile leakage. *Dig Endosc* 2022; 34: e34–e35 doi:10.1111/den.1420934904298

Bibliography

Endoscopy 2023; 55: E1250–E1251

DOI 10.1055/a-2215-1232

ISSN 0013-726X

© 2023. The Author(s).

This is an open access article published by Thieme under the terms of the Creative Commons Attribution License, permitting unrestricted use, distribution, and reproduction so long as the original work is properly cited.

(<https://creativecommons.org/licenses/by/4.0/>)

Georg Thieme Verlag KG, Rüdigerstraße 14,
70469 Stuttgart, Germany



ENDOSCOPY E-VIDEOS

<https://eref.thieme.de/e-videos>



E-Videos is an open access online section of the journal *Endoscopy*, reporting on interesting cases

and new techniques in gastroenterological endoscopy. All papers include a high-quality video and are published with a Creative Commons CC-BY license. *Endoscopy E-Videos* qualify for HINARI discounts and waivers and eligibility is automatically checked during the submission process.

We grant 100% waivers to articles whose corresponding authors are based in Group A countries and 50% waivers to those who are based in Group B countries as classified by Research4Life (see: <https://www.research4life.org/access/eligibility/>).

This section has its own submission website at

<https://mc.manuscriptcentral.com/e-videos>