

Removal of a deeply migrated pancreatic stent in a normal-size pancreatic duct using a modified snare with a cut plastic sheath

A 79-year-old man underwent endoscopic retrograde cholangiopancreatography (ERCP) for removal of stones in the common bile duct. The stones were removed successfully and a pancreatic stent was placed in the pancreatic duct to prevent post-ERCP pancreatitis. The next day the patient suddenly complained of abdominal pain; his serum amylase was 125 U/L. At a second ERCP, we found that the stent had migrated slightly toward the inner side of pancreatic duct (● Fig. 1). In order to remedy the situation, a guide wire was inserted alongside the stent, and then we attempted to pass an extraction balloon over the stent. This pushed the stent further upstream. Subsequent attempts with biopsy forceps, a basket, and a snare caused the stent to migrate to the tail of the pancreatic duct. We tried once again with the small snare, but were unsuccessful. The wire tip of the snare only reached up to the middle of the stent, due to the resistance between the plastic sheath and stent (● Fig. 2). Finally, we cut off about 2 cm of the plastic sheath over the distal tip (● Fig. 3) and when the snare with the shortened plastic sheath was advanced to the proximal end of the stent, it was able to hook the proximal tip of the stent (● Fig. 4). The snare was withdrawn carefully until the stent could be seen at the ampulla (● Fig. 5), and was subsequently removed. The patient's abdominal symptoms resolved soon after this procedure. Although many papers have reported useful endoscopic devices for retrieving proximally migrated pancreatic stents [1–4], these techniques have limited applicability in a normal or narrow pancreatic duct [5]. Our method of using a modified snare with a cut plastic sheath was successful in removing a proximally migrated pancreatic stent inserted deeply in an undilated pancreatic duct.

Endoscopy_UCTN_Code_TTT_1AR_2AI

Competing interests: None

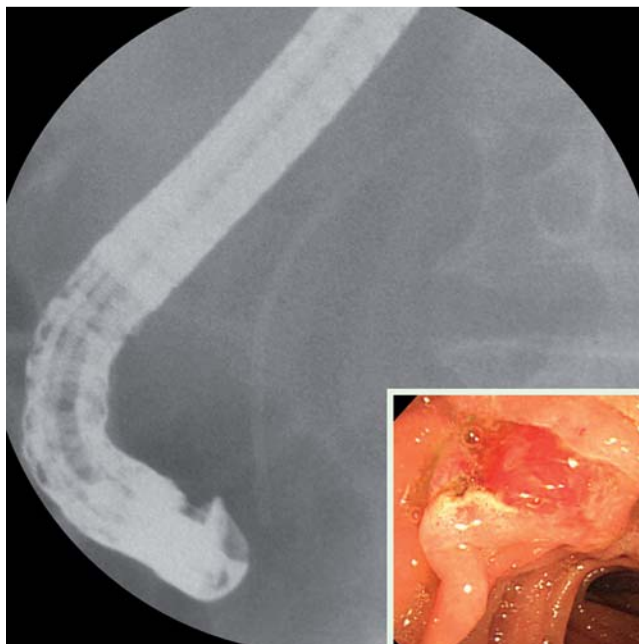


Fig. 1 Fluoroscopic image in a 79-year-old man who underwent endoscopic retrograde cholangiopancreatography (ERCP) for removal of bile stones showing the slightly migrated pancreatic stent in the pancreatic duct (inset: endoscopic view).

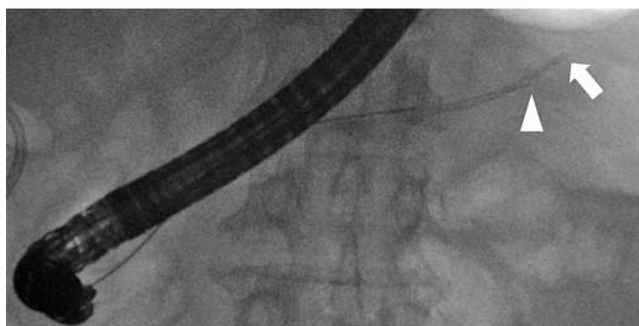


Fig. 2 Endoscopic removal of the proximally migrated pancreatic stent: the tip of a conventional snare (arrowhead) did not reach the proximal end of the stent (arrow).

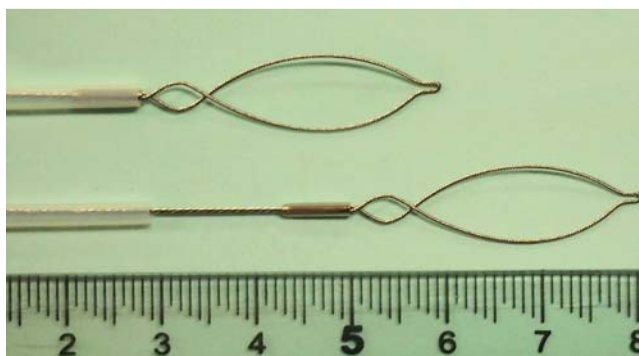


Fig. 3 The modified snare (bottom) with 2 cm of the plastic sheath of the distal tip cut off and a conventional snare completely opened (top).

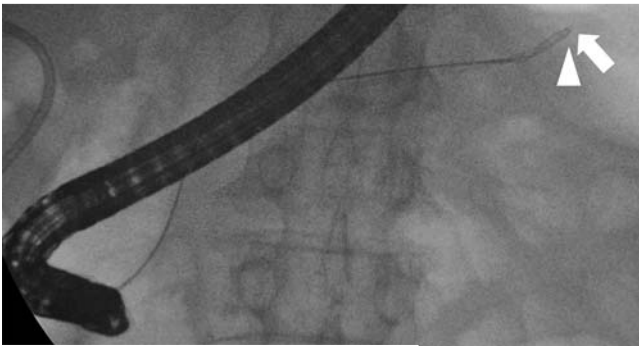


Fig. 4 The modified snare with a cut plastic sheath (arrowhead) hooking the proximal tip of the stent (arrow).

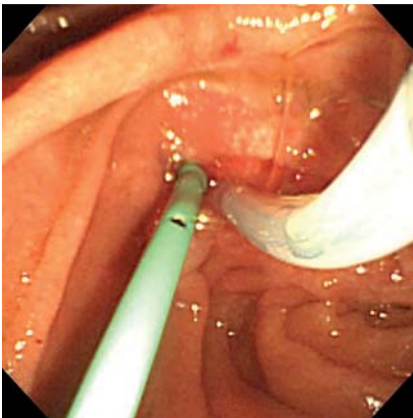


Fig. 5 Endoscopic view showing the stent successfully removed from the pancreatic duct.

**M. J. Kim¹, J. H. Han¹, M. H. Kang²,
H. B. Chae¹, S. M. Park¹, S. J. Youn¹**

¹ Department of Internal Medicine,
Chungbuk National University College of
Medicine, Cheongju-si, Republic of Korea

² Department of Radiology, Chungbuk
National University College of Medicine,
Cheongju-si, Republic of Korea

Acknowledgment

This study was supported by a grant from the National R&D Program for Cancer Control, Ministry for Health and Welfare, Republic of Korea (1120330).

References

- 1 Sherman S, Hawes RH, Uzer MF et al. Endoscopic stent exchange using a guide wire and mini-snare. *Gastrointest Endosc* 1993; 39: 794–799
- 2 Lahoti S, Catalano MF, Geenen JE et al. Endoscopic retrieval of proximally migrated biliary and pancreatic stents: experience of a large referral center. *Gastrointest Endosc* 1998; 47: 486–491
- 3 Rerknimitr R, Phuangsombat W, Naprasert P. Endoscopic removal of proximally migrated pancreatic stent by a grasping tripod. *Endoscopy* 2007; 39: E42
- 4 Vila JJ, Ruiz-Clavijo D, Fernandez-Urien I et al. Endoscopic retrieval of a proximally migrated pancreatic stent: variation of the lasso technique. *Endoscopy* 2010; 42: E5–6
- 5 Price LH, Brandabur JJ, Kozarek RA et al. Good stents gone bad: endoscopic treatment of proximally migrated pancreatic duct stents. *Gastrointest Endosc* 2009; 70: 174–179

Bibliography

DOI <http://dx.doi.org/10.1055/s-0032-1309396>
Endoscopy 2012; 44: E308–E309
 © Georg Thieme Verlag KG
 Stuttgart · New York
 ISSN 0013-726X

Corresponding author

J. H. Han

Department of Internal Medicine
 Chungbuk National University College of Medicine
 410 SungBong-Ro Heungdeok-Gu
 Cheongju-Si ChungBuk
 Republic of Korea 361-771
 Fax: +82-43-2733252
joungcho@cbnu.ac.kr