

Single-step retrieval of a proximally migrated biliary stent

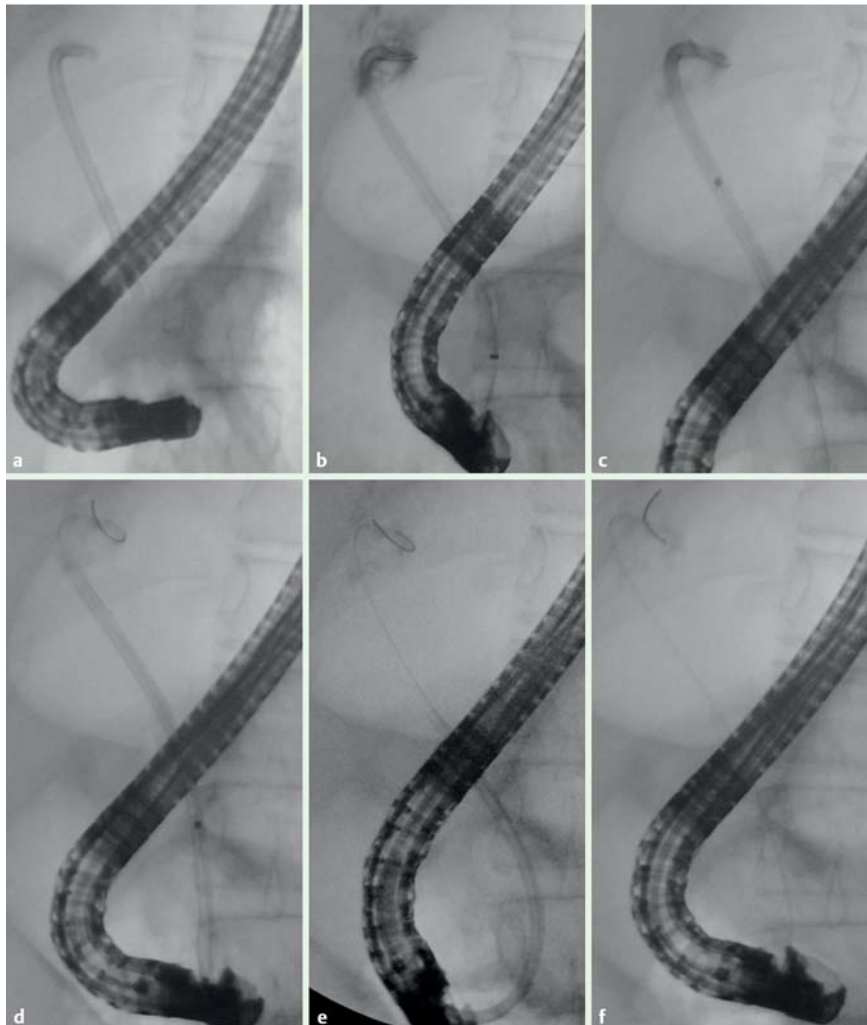


Fig. 1 X-ray views of the process of retrieving a proximally migrated stent: **a,b** 0.035-inch guidewire passed through the proximally migrated stent; **c** dilation balloon inserted over the guidewire and advanced to the distal portion of the stent; **d,e** balloon–stent system withdrawn through the operative channel; **f** guidewire left in situ for any further applications needed.



Fig. 2 The retrieved stent in the endoscopist's hand.

Endoscopic biliary stent placement is a well-established procedure for biliary drainage. However, it has been shown that approximately 5% of plastic stents placed in the biliary tract migrate proximally [1]. The endoscopic retrieval of a proximally migrated biliary stent is technically challenging and occasionally unsuccessful. Several techniques for retrieving proximally migrated plastic stents have been reported [2]. We report here a novel retrieval technique, in which a biliary dilation balloon was used to pull out in one step a trapped plastic stent, previously placed to treat an anastomotic biliary stricture in a patient with a liver transplant.

A 0.035-inch guidewire (Acrobat; Cook Ireland Ltd., Limerick, Ireland) was passed through the 10-Fr, 9-cm proximally migrated stent (Cotton-Leung; Cook Ireland Ltd.) (► **Fig. 1 a, b**). A dilation balloon with a diameter of 4 mm and a length of 4 cm (Hurricane RX Biliary Balloon Dilatation Catheter; Boston Scientific, Marlborough, Massachusetts, USA) was coaxially inserted over the guidewire and advanced to the distal portion of the stent (► **Fig. 1 c**). It was then inflated to nominal pressure. The inflated balloon was anchored inside the stent, resulting in a firm, retrievable coaxial system. With the elevator of the scope (TJF-Q180V; Olympus Europa, Hamburg, Germany) completely opened, the balloon–stent system was withdrawn through the operative channel (diameter of 4.2 mm) (► **Fig. 1 d, e**), with the guidewire left in situ for any further applications that might be needed (► **Fig. 1 f**).

Inspired by the timeless suggestions advanced by Chaurasia et al. in 1999 [2], we report an improved technique of retrieval with the use of a biliary dilation balloon instead of an extraction balloon. The technique results in the safe, single-step retrieval of a migrated stent from the bile duct directly into the endoscopist's hand (► **Fig. 2**), avoiding potential damage to the bile duct and the need for withdrawal of the duodenoscope.

Endoscopy_UCTN_Code_TTT_1AR_2AZ

Competing interests: None

**Antonino Granata, Gabriele Curcio,
Dario Ligresti, Ilaria Tarantino,
Luca Barresi, Mario Traina**

Endoscopy Service, Department of
Diagnostic and Therapeutic Services,
IRCCS – ISMETT (Istituto Mediterraneo
per i Trapianti e Terapie ad alta speci-
alizzazione), Palermo, Italy

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Bibliography

DOI <http://dx.doi.org/10.1055/s-0034-1391908>
Endoscopy 2015; 47: E284–E285
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

Corresponding author

Antonino Granata, MD
IRCCS – ISMETT
Via Tricomi 5
90127 Palermo
Italy
Fax: +39-091-21-92-400
(specify Endoscopy Service)
agranata@ismett.edu