Unraveling the conundrum: innovative technique to remove the stent from the displaced pancreatic duct in stenosis

Stent migration from the pancreatic duct (PD) is a relatively rare but serious complication [1]. If not treated in a timely way, it can lead to serious illnesses, such as recurrent pancreatitis, jaundice, pancreatic cysts, infection, etc. [2]. It is challenging to remove the displaced PD stent, especially in the presence of a PD stenosis, stent distortion, and adhesion to surrounding tissues [3].

A 64-year-old woman underwent routine endoscopic retrograde cholangiopancreatography (ERCP) due to choledocholithiasis and biliary pancreatitis 3 years ago. The stone was successfully removed and a 5-Fr 5-cm PD stent was placed. Unfortunately, after 2 months, the stent had completely migrated into the PD. Removal using stone extraction balloons, baskets, snares, and foreign body forceps was unsuccessful. After suffering from recurrent pancreatitis for the past 3 years, another attempt was made to remove the PD stent.

During the operation, the guidewire was inserted into the proximal main PD but failed to advance to the cervical and caudal PD. Under the guidance of the pancreaticobiliary digital controller (eyeMAX; Micro-Tech Co Ltd, Nanjing, China), the stenosis and scar formation in the distal segment of the PD could be observed and the guidewire was placed through the stenotic segment in distal main PD. Dilation catheters and a balloon were used unsuccessfully in an attempt to dilate the narrowed PD. Finally, it was widened using the Cystotome cystoenterostomy needle knife.
terostomy needle knife (Cook Medical, Bloomington, IN, USA).

Using eyeMAX, the distal end of the PD stent was visualized. Removal of the PD stent with biopsy forceps and a basket was again unsuccessful. We then investigated a new method, and the PD stent was successfully removed using the guidewire orientation of dental floss and the foreign body forceps (► Fig. 1, ► Video 1). The method that we report can safely remove the displaced PD stent in a stenosis without any complications.

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Conflict of Interest

The authors declare that they have no conflict of interest.

The authors

Junqian Chen1‡, Shuting Wen1, Xiaofeng Lin1, Zhuodan Zhong1, Yan Guo1, Dongjing Zhou2, Tianwen Liu1
1 Department of Gastroenterology, The Second Affiliated Hospital of Guangzhou University of Chinese Medicine, Guangzhou, China
2 Department of Radiology, The Second Affiliated Hospital of Guangzhou University of Chinese Medicine, Guangzhou, China

Corresponding author

Tianwen Liu, MD
Department of Gastroenterology, The Second Affiliated Hospital of Guangzhou University of Chinese Medicine, No. 55, Inner Ring West Road, Panyu District, Guangzhou 510000, China
tianwenliu@gzucm.edu.cn

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‡ Contributed equally to this article