

Title:

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Intentional peeling of the guidewire during endoscopic ultrasound hepaticogastrostomy to access the common bile duct

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ABSTRACT:

Endoscopic ultrasound guided biliary drainage has become an effective drainage method for unresectable malignant obstructive jaundice, especially for patients after digestive tract reconstruction. We report a technique for assisting adequate guidewire biliary access during the drainage procedure.

KEYWORDS: Guidewire epidermis peeling. Endoscopic ultrasound-guided antegrade stenting.

Dear Editor

Endoscopic ultrasound guided biliary drainage has become an effective drainage method for unresectable malignant obstructive jaundice, especially for patients after digestive tract reconstruction(1,2). We report a technique for assisting adequate guidewire biliary access during the drainage procedure.

Case report

An elderly man presented to our hospital with obstructive jaundice. The patient had previously undergone digestive tract reconstruction and the Papilla of Vater could not be reached with routine ERCP (Endoscopic Retrograde Cholangiopancreatography). The obstruction site was located at the lower end of the common bile duct. We planned to perform Endoscopic ultrasound-guided hepaticogastrostomy and antegrade stenting. Under endoscopic ultrasound guidance, the S2 liver segment was chosen for puncture, and the guide wire successfully entered the intrahepatic biliary system (Fig1a), however the guide wire failed to enter the common bile duct after repeated attempts (Fig1b). We use a blade to "peel" the guide wire covering (Fig1c) and after trying again we were able to enter the guide wire into the common bile duct (Fig1d). Afterwards a stent was placed (Fig1e). Bilirubin levels decreased significantly on the second day after the procedure, and no stent dysfunction occurred at follow-up up to 6 months.

Discussion

Endoscopic ultrasound-guided biliary drainage is a very challenging endoscopic technique, especially for antegrade stenting (3). It is a crucial and difficult step to negotiate the guide wire to advance it into the common bile duct. We used the peeling of the guide wire to change its direction and successfully enter the common bile duct.

REFERENCES

1. Paduano D, Facciorusso A, De Marco A, et al. Endoscopic Ultrasound Guided Biliary Drainage in Malignant Distal Biliary Obstruction. *Cancers (Basel)*. 2023;15 (2):. doi:10.3390/cancers15020490
2. Minaga K, Kitano M. Recent advances in endoscopic ultrasound-guided biliary drainage. *Dig Endosc*. 2018;30 (1):38-47. doi:10.1111/den.12910
3. Gopakumar H, Singh RR, Revanur V, et al. Endoscopic Ultrasound-Guided vs Endoscopic Retrograde Cholangiopancreatography-Guided Biliary Drainage as Primary Approach to Malignant Distal Biliary Obstruction: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. *Am J Gastroenterol*. 2024;119 (8):1607-1615. doi:10.14309/ajg.0000000000002736

Figure

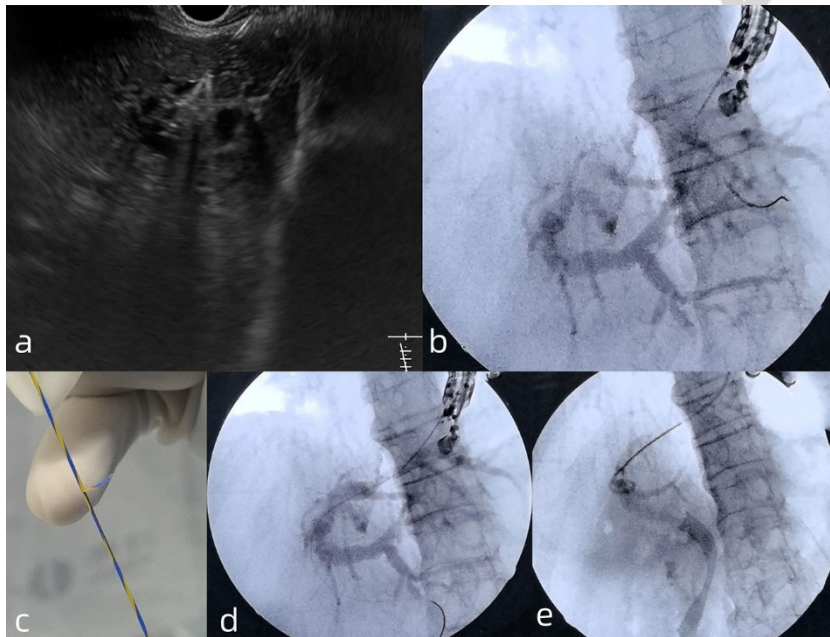


Figure legends:

Fig1a: Endoscopic ultrasound guided puncture of intrahepatic bile duct.

Fig1b: Repeated attempts have failed to get the wire into the common bile duct.

Fig1c: Use a blade to "peel" the guide wire.

Fig1d: New attempts were performed, and the guide wire successfully entered the common bile duct.

Fig1e: A metal stent was placed anterograde in the common bile duct.