

DEN Video Article

Combined endoscopic ultrasound-guided hepaticoduodenostomy with percutaneous reverse rendezvous technique for the treatment of isolate right intrahepatic bile duct stricture

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BRIEF EXPLANATION

A 57-YEAR-OLD MALE with Roux-en-Y hepaticojejunostomy (HJ) stricture with separation of intrahepatic ducts (IHDs) received percutaneous transhepatic drainage (PTBD) insertion. The right IHD dilation by enteroscopy, percutaneous cholangioscopy or magnet placement were unsuccessful. Endoscopic ultrasound-guided hepaticoduodenostomy (EUS-HDS) was performed after diluted contrast injection into the right PTBD. The 19-G EUS fine needle aspiration needle was used but unable to achieve good puncture position and was changed to the 22-G needle followed by 0.018-inch coated stiff guidewire (Novagold, Boston, MA, USA) insertion. The 6-Fr coaxial cautery dilator (Cystotome; EndoFlex, Voerde, Germany) could not pass through the dense fibrotic tissue surrounding the liver hilum. The percutaneous choledochoscope was inserted and the 0.018-inch guidewire was retracted through the skin. Using the firm wire tension between the percutaneous side and the EUS side, coaxial cautery was able to be inserted through the tract. The wire was then exchanged to the 0.035-inch guidewire and a 10 × 80 mm fully covered self expandable metal stent (FCSEMS) was placed. Four weeks later, the FCSEMS was replaced by multiple plastic stents to prevent stent migration and minimized side branch obstruction and the PTBD was removed (Fig. 1, Video S1).

EUS-HDS has been used for the treatment of isolated right intrahepatic bile duct obstruction.¹ In cases with small bile duct or with difficult position, EUS-guided intervention

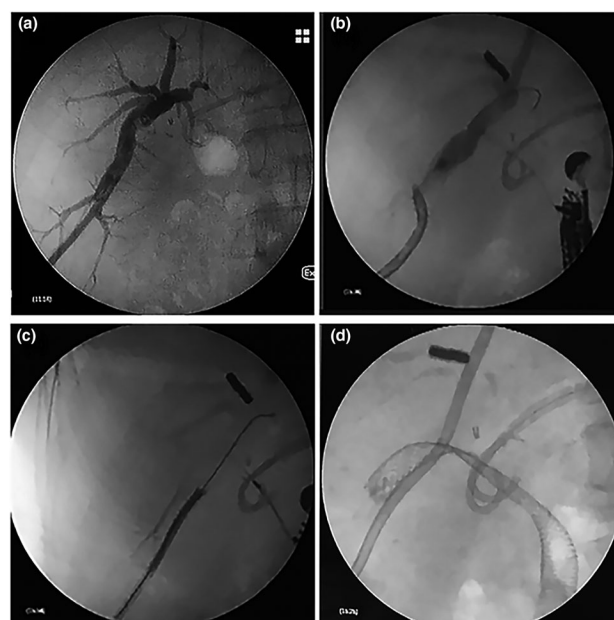


Figure 1 (a) Right intrahepatic bile duct cholangiogram showed right intrahepatic bile duct obstruction. (b) Endoscopic ultrasound (EUS)-guided right intrahepatic bile duct puncture using 22-G needle was performed followed by 0.018-inch guidewire insertion. (c) Percutaneous choledochoscope was inserted and the 0.018-inch guidewire was retracted through the skin. (d) With the aid of percutaneous wire traction, the fully covered metal stent could be placed across the fistula.

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using 22-G needle with 0.018-inch guidewire is feasible but provides poor stability.^{2,3} The combined percutaneous intervention provides sufficient tension to aid EUS-guided intervention in the opposite direction to the usual rendezvous technique,⁴ so-called, ‘reverse rendezvous technique’.⁵

Authors declare no conflict of interest for this article.

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SUPPORTING INFORMATION

ADDITIONAL SUPPORTING INFORMATION may be found in the online version of this article at the publisher’s web site.

Video S1 A percutaneous choledochoscope was inserted over the percutaneous tract and the 0.018 inch guidewire that was placed via EUS was retracted through the percutaneous tract. A fully cover metallic stent was placed through the hepaticoduodenal fistula under percutaneous traction.