



Endoscopic management of a type III choledochal cyst (choledochocele) using snare resection without balloon-catheter assistance

Min Han, MM, Nenghong Yang, MM, Hao Zhang, MD, Xun Ran, MD

A 19-year-old man with acute recurrent pancreatitis was referred to our institution. He presented with typical upper abdominal pain and hyperamylasemia. Laboratory testing showed that blood amylase was 845.74 U/L and urine amylase was 6438.7 U/L. A liver function test showed that alanine aminotransferase was 62.9U/L, aspartate aminotransferase was 86.5U/L, total bilirubin was 45 $\mu\text{mol/L}$, and direct bilirubin was 20.8 $\mu\text{mol/L}$. He had normal lipid, and no history of alcohol consumption and trauma.

We noted that extrahepatic bile ducts were dilated on contrast-enhanced abdominal CT scan and MRCP, without

occupying images or stones (Fig. 1A). EGD revealed a subepithelial lesion in the second portion of the duodenum, and EUS demonstrated an intraduodenal cystic lesion without any stones. ERCP then identified a papilla located at the lower right base of the lesion and contrast agent accumulation in the inner wall of the lesion (Fig. 1B and C).

Because the rate of malignant transformation of this disease has been reported to be around 2.5%,¹ sphincterotomy and drainage of the cyst generally could be performed, with regular postoperative examination sufficing. However, because the inner wall of a few cysts consisted of bile

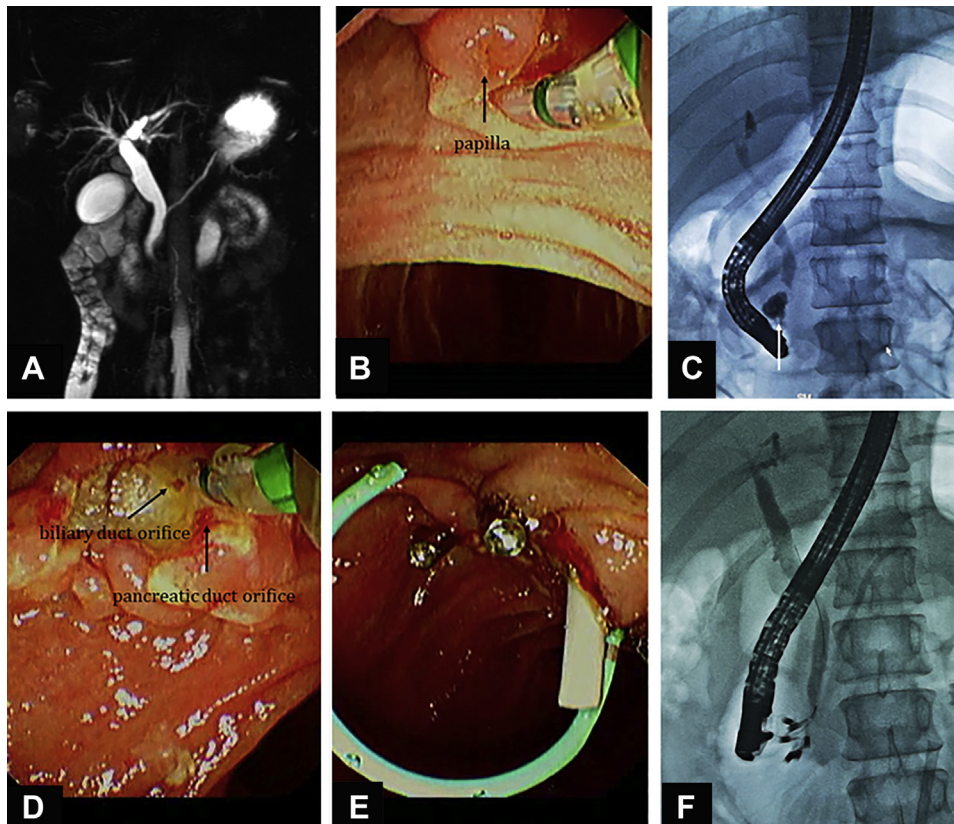


Figure 1. **A**, Extrahepatic bile ducts dilated on MRCP. **B**, Papilla at the lower right base of the cyst. **C**, ERCP showed contrast agent accumulated in the inner wall of lesion (*white arrow*). **D**, The orifice of the pancreatobiliary system after resection. **E**, The biliary and pancreatic plastic stents were placed. **F**, ERCP of readmission showed normal bile ducts.

duct epithelium, there was the possibility of malignant transformation.²

The cystic lesion was resected directly with an endoscopic snare, and the orifice of the pancreatobiliary system was identified (Fig. 1D). The pancreatogram and cholangiogram showed normal results, and biliary and pancreatic plastic stents were placed (Fig. 1E). Errhysis occurred at the dorsal margin, and hemoclips were placed to avoid postoperative bleeding. The patient had an uneventful recovery and showed no symptoms after 3 months of follow-up. After that, he was readmitted for removal of the stents, and ERCP showed normal bile ducts (Fig. 1F).

Type III choledochal cyst (choledochocele) is hard to diagnose because some cases have no specific imaging findings. Therefore, ERCP is necessary for suspected cases. This case demonstrates the safety of snare resection of type III choledochal cysts without balloon-catheter assistance (Video 1, available online at www.giejournal.org).

DISCLOSURE

All authors disclosed no financial relationships and no funding sources.

REFERENCES

1. Soreide K, Soreide JA. Bile duct cyst as precursor to biliary tract cancer. *Ann Surg Oncol* 2007;14:1200-11.
2. Law R, Topazian M. Diagnosis and treatment of choledochoceles. *Clin Gastroenterol Hepatol* 2014;12:196-203.

Department of Hepatobiliary Surgery, The Affiliated Hospital of Guizhou Medical University, Guizhou, China.

If you would like to chat with an author of this article, you may contact Dr Ran at 454827463@qq.com.

Copyright © 2021 American Society for Gastrointestinal Endoscopy. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

<https://doi.org/10.1016/j.vgje.2020.11.015>

Twitter

Become a follower of *VideoGIE* on Twitter. Learn when new articles are posted and receive up-to-the-minute news as well as links to our latest videos. Search @VideoGIE on Twitter.