

Title:

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Direct peroral cholangioscopy with conventional upper gastrointestinal endoscope

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Ethical considerations: written informed consent was obtained from the patient for publication of this case report and any accompanying images.

Keywords: Endoscopy. Endoscopic retrograde colangiopancreatography. Cholangioscopy. Biliary stones. Altered anatomy.

Dear Editor,

An 83-year-old male with a history of a Whipple procedure (pancreatoduodenectomy) due to pancreatic cancer underwent endoscopic retrograde colangiopancreatography (ERCP) for acute cholangitis. An upper gastrointestinal endoscope was used because of the altered anatomy.

Severe stricture of the hepaticojejunal anastomosis was found (Fig. 1A) and the anastomotic stricture was dilated with a 12 mm through-the-scope (TTS) balloon under fluoroscopy and direct visualization (Fig. 1D). The right and left ducts were explored with a Dormia basket and balloon (Fig. 1E and F), with extraction of bile duct stones and pus.

Cholangioscopy with upper gastrointestinal endoscope was performed and residual cholesterol stones were identified in the branches of the left hepatic duct, and these were removed with the stone extraction balloon under endoscopic visualization (Fig. 1B and C). Ciprofloxacin was administered for five days and the post interventional course was uneventful.

Discussion

Direct peroral colangioscopy using a conventional endoscope provides high quality endoscopic imaging, enabling access to virtual chromoendoscopy, and the 2.8 mm diameter working channel allows for interventional procedures (1). This strategy is useful and economical, helping confirm clearance of common bile duct stones, while allowing the extraction of any residual stones (2). New, cost-effective scopes for peroral cholangioscopy are needed to improve the safety and success rate (3).

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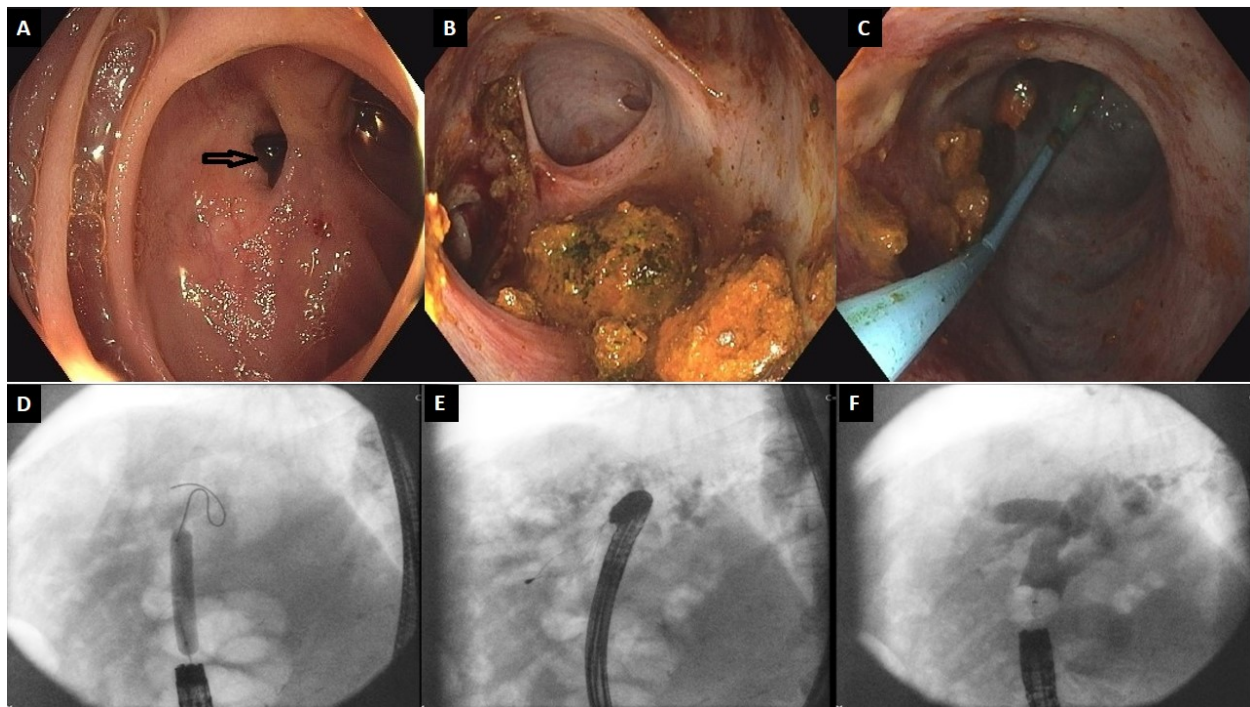


Fig. 1. A. Stricture of the hepaticojejunal anastomosis (black arrow). B. Right segmental hepatic ducts with stones. C. Intrahepatic bile duct stone removal with balloon. D. Balloon dilation. E. Exploration of the liver lobes with Dormia basket. F. Exploration of the liver lobes with stone extraction balloon.