Endoscopic ultrasound-guided antegrade cholangiography for diagnosis of aberrant right intrahepatic duct injury after laparoscopic cholecystectomy

A 45-year-old woman presented to another hospital with worsening abdominal pain and nausea 1 week after an uncomplicated laparoscopic cholecystectomy. Serial computed tomography imaging showed an enlarging fluid collection in the perihepatic and subcapsular spaces measuring 23 × 19 × 21 cm. Initial endoscopic retrograde cholangiopancreatography (ERCP) and hepatobiliary iminodiacetic acid (HIDA) scan were considered normal, without evidence of biliary dilation or leak. When the patient did not improve with conservative management, a second ERCP was performed and a SofFlex stent (Cook Medical Inc., Bloomington, Indiana, United States) was placed in the common bile duct at the level of the ampulla to facilitate biliary drainage. The patient was then transferred to our institution.

Endoscopic ultrasound (EUS) showed a large fluid collection and fine-needle aspiration was consistent with biloma. ERCP and occlusion cholangiography showed a normal-looking biliary tree with numerous clips at the cystic duct remnant. About half of the clips were seen 2 cm proximal to the stump, suggesting that another duct may have been clamped in addition to the cystic duct (Fig. 1). The findings of no leak on ERCP and a large biloma were thought to be consistent with a Strasberg–Bismuth class C injury [1].

The patient underwent percutaneous drainage of the biloma, HIDA, magnetic resonance cholangiopancreatography, and fistulogram through the biloma drain without identifying the source of the leak. EUS-guided ERCP was performed again. EUS showed a dilated right intrahepatic bile duct, measuring 6 mm and ending at the surgical clip, consistent with duct injury. EUS cholangiogram into this segment demonstrated a ligated aberrant right intrahepatic duct with leakage near the clips (Fig. 2). The patient subsequently underwent Roux-en-Y hepaticojejunostomy and recovered uneventfully. This report highlights the role of EUS-guided antegrade cholangiography as an early diagnostic modality in cases of persistent biliary leak with a seemingly “normal” ERCP. In such cases, EUS-guided antegrade cholangiography can confirm the diagnosis of aberrant duct injury without the need to resort to further invasive diagnostic modalities, such as percutaneous transhepatic biliary drainage, and potentially leading to earlier diagnosis and reduced patient morbidity.

Endoscopy_UCTN_Code_CPL_1AK_2AI

Competing interests: None

Farid Jalali1, John G. Lee2

1 Department of Internal Medicine, University of California Irvine, Orange, California, United States
2 H. H. Chao Comprehensive Digestive Disease Center, Division of Gastroenterology, Department of Medicine, University of California Irvine, Orange, California, United States

Reference

Bibliography
DOI http://dx.doi.org/10.1055/s-0034-1377549
Endoscopy 2014; 46: E465
© Georg Thieme Verlag KG Stuttgart · New York
ISSN 0013-726X

Corresponding author
Farid Jalali, MD
Department of Internal Medicine
Irvine Medical Center
University of California
333 City Blvd. West Suite 400
Orange
California 92868
United States
Fax: +1-3048344055
farid.jalali@gmail.com