Liver transplant bile duct suture leading to acute cholangitis: endoscopic removal via cholangioscopy

Acute cholangitis occurs from biliary obstruction. Gallstones, strictures and neoplasia account for most cases [1]. Sutures from prior surgical interventions have previously been described as leading to obstruction [2]. We present a case of a patient who had undergone orthotopic liver transplantation with duct-to-duct biliary anastomosis 4 years previously and developed acute cholangitis ultimately due to a retained suture at the site of the biliary anastomosis (▶ Video 1). This suture was successfully removed endoscopically to prevent future recurrences. A 52-year-old woman with a history of cirrhosis secondary to primary biliary cholangitis, status post orthotopic liver transplantation (with duct-to-duct biliary anastomosis), presented 4 years after transplantation with acute right upper quadrant abdominal pain, nausea, and vomiting. She was found to have obstructive jaundice and sepsis consistent with acute cholangitis. Initial computed tomography (CT) revealed intrahepatic biliary dilation and a 2.7-cm filling defect in the common bile duct (▶ Fig. 1). She underwent endoscopic retrograde cholangiopancreatography (ERCP) which revealed pus emerging from the major papilla and a large stone at the middle third of the common
bile duct (▶Fig. 2). The stone was too large for removal through a nondilated distal common bile duct. Electrohydraulic lithotripsy (EHL) was not performed, given the active cholangitis. Two transpapillary plastic stents were placed for source control.

ERCP was repeated 4 weeks later for stone removal. Cholangioscopy was performed, at which time EHL was successful and revealed that the stone had formed around an anastomotic suture (▶Fig. 3). A cholangioscopy forceps was utilized for suture removal (▶Fig. 4). The final cholangiogram (▶Fig. 5) revealed no remaining obstruction or bile duct injury.

This case demonstrates unique features including a prior biliary duct-to-duct anastomotic suture acting as a nidus for stone formation. Such sutures should be removed to prevent recurrent stone formation and we demonstrate that this can be safely performed endoscopically.

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Conflict of Interest

T. Tielleman is a consultant for ConMed.

The authors

Emil Thyssen1, Parsia Vaghefi2, Arjmand Mufti1, Thomas Tielleman1
1 Department of Internal Medicine – Digestive and Liver Diseases, The University of Texas Southwestern Medical Center, Dallas, United States
2 Department of Surgery – Transplant Surgery, The University of Texas Southwestern Medical Center, Dallas, United States

Corresponding author

Thomas Tielleman, MD
University of Texas Southwestern Medical Center, 5323 Harry Hines Blvd., Dallas, TX, 75390, USA
Thomas.Tielleman@utsouthwestern.edu

References


Bibliography

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