



Intraductal suture leading to biliary stone formation and recurrent obstruction and cholangitis: cholangioscopy-guided forceps removal

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BACKGROUND

Suture material can create a nidus around which stones can form.¹ Previous management of choledocholithiasis in this setting has been surgical or was limited to removing the stones via ERCP without addressing the underlying etiology. More recently, cholangioscopy-guided removal of surgical clips causing stone impaction using a retrieval basket was described.² This case illustrates the use of new larger-capacity cholangioscopy biopsy forceps to endoscopically remove intraductal surgical sutures from cholecystectomy.

CASE PRESENTATION

A 64-year-old woman with cryptogenic cirrhosis, status post cholecystectomy 20 years ago, right hepatic resection, and bile duct stones with recurrent cholangitis who had undergone multiple ERCPs at an outside facility presented with worsening jaundice. Liver function tests (LFTs) on presentation were elevated. MRCP was performed and showed multiple filling defects consistent with stones with a distal biliary stricture and proximal dilation. Next, EUS identified multiple stones and sludge in the common bile duct (CBD). ERCP with a balloon sweep of the CBD revealed multiple stones, including a large stone attached by a suture to the bile duct (Figs. 1 and 2). Cholangioscopy was performed next with a single-operator, disposable cholangioscope, and it identified the suture material around which the stone was attached arising from the area of the cystic stump takeoff, likely a remnant from prior

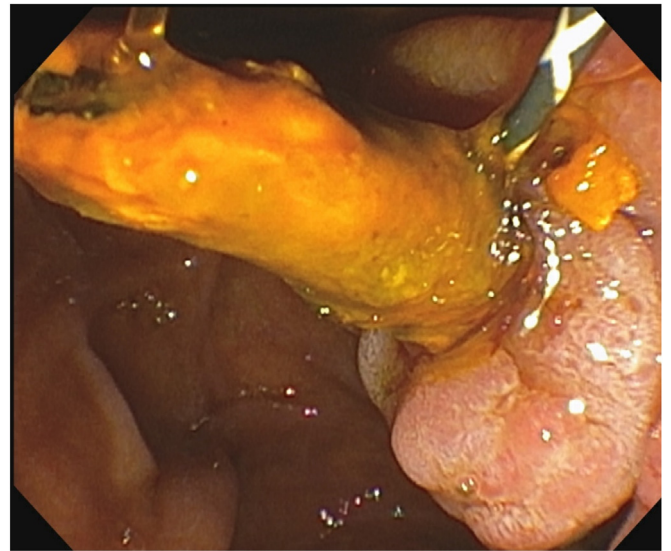


Figure 1. Large stone attached by a suture to the bile duct seen on balloon sweep during ERCP.

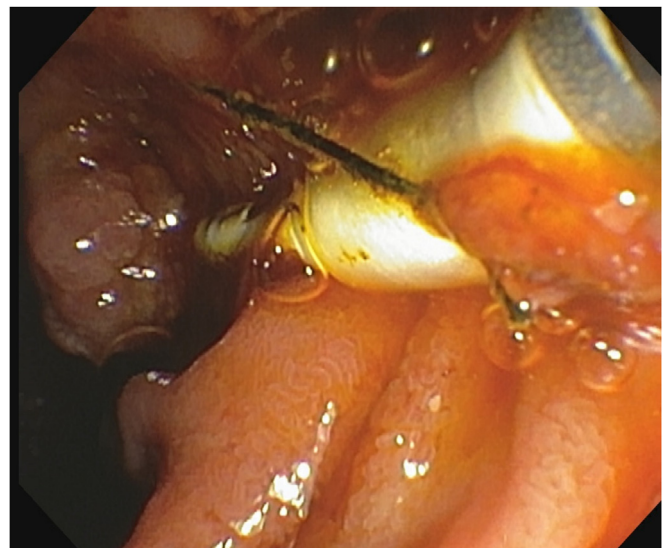


Figure 2. Suture arising from the bile duct on balloon sweep.

Abbreviations: CBD, common bile duct; LFTs, liver function tests.

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Figure 3. Cholangioscopy view of the cystic duct stump takeoff with visible sutures attached.

cholecystectomy (Fig. 3; Video 1, available online at www.videogie.org). Using large-capacity cholangioscopy biopsy forceps, we successfully removed the residual suture material under direct endoscopic vision (Fig. 4). The patient's LFTs improved in the days after her procedure, and no further episodes of recurrent biliary obstruction or cholangitis were noted.

CONCLUSION

Cholecystectomy surgical sutures at the cystic duct takeoff can form a nidus for recurrent stone formation and cholangitis. Nonsurgical endoscopic suture removal can be performed as described previously using ERCP with cholangioscopy. The new larger-capacity cholangioscopy biopsy forceps is an added tool for successful suture removal.

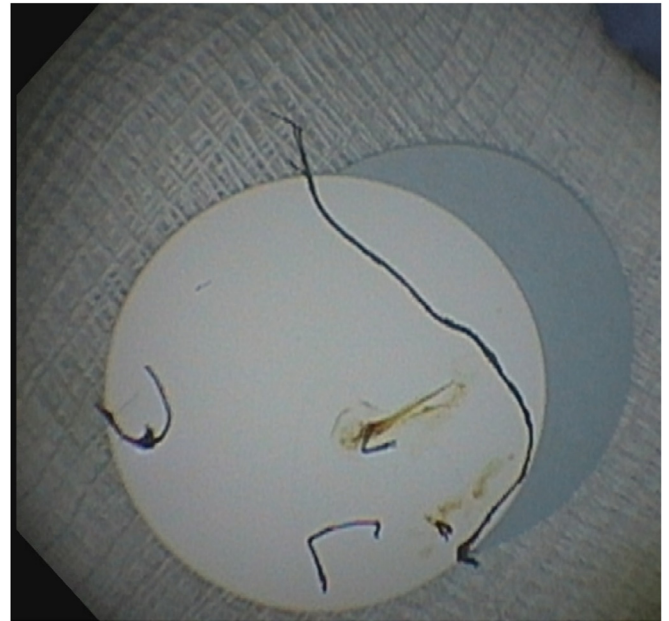


Figure 4. Cholecystectomy sutures removed from the bile duct.

DISCLOSURE

Dr Nassani has received travel expenses from Boston Scientific. Dr Siddiqui is a speaker, consultant, and researcher at Boston Scientific and Olympus, as well as a consultant and speaker at Cook, Medtronic, and Conmed. All other authors did not disclose any financial relationships.

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