

Management of Intrahepatic Lithiasis Leading to Recurrent Pyogenic Cholangitis and Liver Abscess



Teodor C. Pitea, M.D.

Banner - University Medical
Center Phoenix
Phoenix, Arizona



Rashmi Kumar, M.D.

Banner - University Medical
Center Phoenix
Phoenix, Arizona

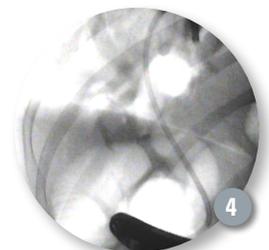
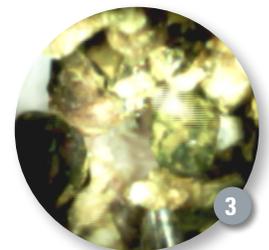
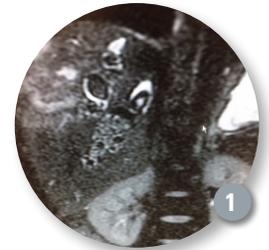
technique spotlight

Patient History

A 26-year-old female with a past medical history of cholelithiasis status-post cholecystectomy and choledocholithiasis status-post common bile duct exploration four years ago, presented to the hospital with acute cholangitis. A CT of the abdomen and pelvis showed a large partially necrotic appearing mass (91mm x 52mm) involving most of the superior aspect of the right lobe of the liver. The mass was suspicious for neoplasia versus a hepatic abscess. Four days later, a MRI of the abdomen was performed with MRCP showing severe biliary ductal dilation (20mm common bile duct, 17mm left hepatic duct) with intrahepatic stones measuring up to 19mm (Figure 1). There was a slight decrease in the large right hepatic lobe lesion (68mm x 50mm), which was felt to be related to the resolving infection/abscess. An urgent ERCP was performed for cholangitis which showed filling defects in the common bile duct (CBD), left hepatic duct (LHD) and right hepatic duct (RHD). The biliary tree was swept with an 18mm balloon and plastic stents were placed in both left and right hepatic ducts. The patient returned with acute cholangitis two months later, and a repeat CT scan of the abdomen showed both stents had migrated spontaneously. The liver abscess now measured 37mm x 32mm. Again, she was noted to have numerous stones in the right intrahepatic biliary system. An ERCP was performed urgently for management of acute cholangitis and plastic stents were placed again in the right and left hepatic ducts. Plans were made for a repeat ERCP using the SpyGlass™ DS Direct Visualization System and electrohydraulic lithotripsy (EHL) for management.

Procedure

The bile duct was deeply cannulated with a 15-18mm Extractor™ Pro RX Retrieval Balloon Catheter and guidewire. Contrast was injected. The main bile duct contained filling defects thought to be stones and sludge. The biliary tree was swept with the 18mm balloon and the CBD was cleared. The SpyScope™ DS Catheter was introduced and advanced to the right intrahepatic duct. Multiple stones were visualized and were completely occluding the system. EHL was performed for a total procedure duration of 3 hours 30 minutes, exclusively targeting the right intrahepatic system (Figures 2 & 3). Sludge and stones were removed utilizing the 15-18mm Extractor Pro RX Retrieval Balloon Catheter. Double-pigtail Advanix™ Biliary Plastic Stents were placed in the left and right hepatic systems and the common bile duct, and plans were made for repeat treatment targeting the left intrahepatic stones. Five weeks later, the patient returned for a final session of intrahepatic EHL targeting the left hepatic system (Figure 4). All visible residual stones were targeted and removed with a total procedure time of 1 hour 30 minutes.



Management of Intrahepatic Lithiasis Leading to Recurrent Pyogenic Cholangitis and Liver Abscess

technique spotlight

Outcome

The patient tolerated the procedures well. The liver abscesses completely resolved and her liver biochemistry normalized. The patient did not experience a recurrence of cholangitis over the last three months.

Conclusion

The mortality rate for acute cholangitis remains high (20-30%) despite advances in treatment. This patient had intrahepatic lithiasis and recurrent cholangitis, therefore without the SpyGlass™ DS System to allow for EHL, her prognosis would have been grim. Management of intra- and extrahepatic duct stones can be challenging, and the SpyGlass DS System allows for the direct visualization of the stones in intrahepatic ducts and helps direct fragmentation using EHL. This endoscopic procedure not only improved the clinical outcome by preventing further episodes of cholangitis, it also avoided the need for surgical exploration and associated complications of what the patient experienced four years ago.

Results from case studies are not predictive of results in other cases. Results in other cases may vary.

All trademarks are the property of their respective owners.

CAUTION: Federal (USA) law restricts this device to sale by or on the order of a physician.

CAUTION: The law restricts these devices to sale by or on the order of a physician. Indications, contraindications, warnings and instructions for use can be found in the product labelling supplied with each device. Information for use only in countries with applicable health authority registrations. Material not intended for use in France.

Boston Scientific Corporation
300 Boston Scientific Way
Marlborough, MA 01752-1234
www.bostonscientific.com/gastro
www.EndoSuite.com

©2017 Boston Scientific Corporation
or its affiliates. All rights reserved.

ENDO-456710-AA March 2017

