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Post-liver transplant stricture management

EXALT™ Model D Single-Use Duodenoscope and SpyGlass™ DS II together in ERCP

Patient history and assessment

A post–liver transplant patient presented with persistently elevated liver enzymes and high GGT levels, despite treatment with steroids for biopsy-proven rejection.

MRI/MRCP revealed an anastomotic stricture with intrahepatic biliary dilation, and same-day imaging confirmed focal stenosis at the anastomosis.

Procedure plan

Given the patient's immunocompromised status and need for stenting, ERCP with the EXALT Model D Single-Use Duodenoscope was indicated to address the biliary obstruction.

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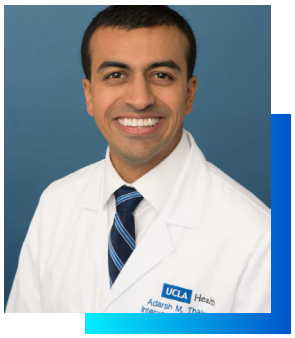
Dr. Muthusamy is a paid consultant of Boston Scientific.



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Procedure

- The goal of this procedure was to access the biliary duct via ERCP in order to identify the stricture, dilate it, and potentially place a bile duct stent across it to restore adequate bile flow.

Figure 1.

Fluoroscopy demonstrates anastomotic stricture inaccessible through traditional ERCP access methods.

Figure 2.

Direct visualization of the anastomotic stricture via the SpyGlass DS II Direct Visualization system.

Techniques used

Initial attempts at guidewire passage across the anastomotic stricture using standard ERCP techniques were unsuccessful due to a complex, sigmoid-like duct morphology.

The team utilized the EXALT™ Model D Single-Use Duodenoscope to attempt standard ERCP techniques of cannulation with angled guidewires and balloon occlusion cholangiogram to better delineate the anatomy and navigate the stricture, without success. At this point, it was determined that leveraging a cholangioscope for direct visualization would be necessary to pass the wire across the stricture [Figure 1].

The sphincterotomy was extended to facilitate passage of the SpyScope™ DS II Catheter, allowing for a successful free cannulation into the common bile duct and direct visualization of the stricture [Figure 2]. A NovaGold™ 0.018″ guidewire was advanced through the stricture, and the SpyScope DS II Catheter was exchanged for a Soehendra dilator. The stricture was then dilated with a 4mm Hurricane™ RX Biliary Balloon Dilation Catheter, and a 10Fr X 14cm straight plastic biliary stent was placed.

Outcome/Device impact

In this complex post–liver transplant case, the patient presented with a persistent biliary stricture at the anastomosis that could not be managed with conventional ERCP techniques. Direct visualization with the SpyGlass DS II Direct Visualization System enabled identification and successful traversal of the stricture, followed by balloon dilation and stent placement. In addition, use of the EXALT Model D Single-Use Duodenoscope helped minimize infection risk. This approach underscored the value of advanced endoscopic tools in addressing this challenging post-transplant biliary complication.

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This case study was produced in cooperation with Raman Muthusamy, MD, MAS and Adarsh M. Thaker, MD. Results from case studies are not predictive of results in other cases. Results in other cases may vary.

Caution: U.S. Federal law restricts these devices to sale by or on the order of a physician.

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