

Spyglass: any role for post-liver transplantation stricture

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Biliary complications occur in 10% to 25% of patients after liver transplantation, with strictures being the most common. The incidence of biliary stricture was reported from 5% to 15%. Endoscopic management of these strictures includes wire-guided balloon dilatation with long-term stenting, which has a success rate of 75% to 90. Negotiating the lesion site by a guidewire is one of critical steps of this procedure. Once the stricture is cannulated with a guidewire, the reported success for this procedure is 80% to 90%. Cannulate the stricture is an important and critical event in determining the success or failure of the endoscopic treatment. A tight and /or angulated stricture may preclude successful cannulation of guide wire, and make the procedure failed. This situation has been reported to be the most common cause of ERCP failure in biliary complication after liver transplantation. Conventionally this step of negotiating the lesion site by a guidewire is performed under fluoroscopy. It requires repeated to-and-fro attempts with skills of controlling guide wire until successful cannulation. When the stricture is extremely tight and angulated, it is very exhausting and time-consuming, and may lead to a procedure failure. And repeated failure of ERCP will necessitates a percutaneous approach or a revision surgery eventually.

The SpyGlass Direct Visualization System is a peroral cholangioscope with 4-way tip deflection that allows not only visualizing biliary lesion, but also optically guided intervention. The SpyGlass system, which provides direct visual access to the biliary tract for guidance, may become an important assist device in the subset of patients who fail conventional ERCP. When a conventional ERCP failure with negotiating a guide wire over a stricture, another attempt with direct visualizing by the SpyGlass system will increase the opportunity of success. In addition, formation of intrahepatic stones may develop after long-term dwelling stents for anastomotic stricture following liver transplantation. Extraction of intrahepatic stones is another challenge for conventional ERCP, but can also be accomplished by the SpyGlass system with electrohydraulic/or laser lithotripsy. The purpose of this speech is to discuss role of SpyGlass cholangioscopy in management of post-liver transplantation biliary complications.