Using WallFlex Biliary RX Stents to Manage Post Liver Transplant Anastomotic Stricture

PATIENT HISTORY
A 65-year-old man was admitted because of jaundice for the last 30 days with some itching in the last week. His total bilirubin was 15.5mg/dl with 12mg/dl of bilirubin direct. Alkaline phosphatase and gamma glutamyl transpeptidase were 2-3 times above the normal limit. Platelets were low (53,000/mm3). An abdominal ultrasound showed dilated intrahepatic ducts up to the hepatic hilum.

PROCEDURE
An endoscopic retrograde cholangiopancreatography (ERCP) was performed for biliary drainage. During the procedure there was a tight stricture in an anastomotic area that could not be bypassed by a guidewire (Figures 1 and 2). Percutaneous drainage was considered, but we crossed the stricture using a needleknife under radiologic control (Figure 3), as the intrahepatic biliary tree was very dilated. After passing cutting current through the needleknife we were able to reach the dilated intrahepatic biliary tree and a Jagwire® 0.035” Guidewire was passed to ensure access. A fully covered 80mm x 10mm WallFlex® Biliary RX Stent was deployed without sphincterotomy (Figure 4) or dilatation because of the low platelet count. Deployment was successful with immediate drainage of bile and contrast. Due to the very fibrotic nature of the stricture a waist was clearly noticed after stent deployment (Figure 5). The patient recovered uneventfully from the procedure.

PATIENT OUTCOME
Patient was discharged one day after the procedure and his bilirubin levels were down to 5mg/dl. He is now two months after the index procedure without jaundice or itching and normal liver function tests. A new ERCP will be performed in 5-6 months after the index procedure to remove the WallFlex Biliary RX Stent and evaluate for the need of any further treatment.

DISCUSSION
Biliary complications occur in up to 40% of patients after liver transplantation (orthotopic liver transplant) and are currently managed with multiple plastic stents. Self-expanding metal stents have recently shown encouraging results. There is no study comparing both treatment modalities. Our group experience with partially covered metal stents in 10 patients also showed encouraging results. There was immediate stricture resolution in all patients, with one recurrence after a median follow up of 180 days. We are now performing a randomized controlled trial of multiple plastic stents versus fully covered metallic stents in anastomotic post liver transplantation. Because there is no need for sphincterotomy or dilatation or repeated procedures, even with a higher initial cost in the metal stent groups we think that full treatment cost may be lower than in the plastic group.

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

CAUTION: The law, including Federal (USA) 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 labeling supplied with each device.

NOTE: Use of the WallFlex Biliary RX Fully Covered Stent for the treatment of benign strictures or stenoses has not been cleared for use in the United States.

WARNING: The safety and effectiveness of the WallFlex Biliary Stent for use in the vascular system has not been established.

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