PURPOSE: To evaluate long-term clinical outcomes and complications of coronary stent placement for hepatic artery stenosis after orthotopic liver transplantation (OLT).

MATERIALS AND METHODS: From November 2003 to August 2007, 26 patients had hepatic artery stenosis or thrombosis which were confirmed by digital subtraction angiography. Eighteen of them underwent coronary stent placement, using coaxial catheter technique combined with neurovascular and coronary interventional materials. Follow-up was performed with clinical and laboratory tests (liver function tests), Color Doppler US and CTA. The technical results, clinical outcomes, hepatic artery patency were reviewed.

RESULTS: Three patients died and 1 patient underwent retransplantation within 2 months after stenting procedure. The other 14 patients were followed for median 21.7 months (2.3-37.2 months). Seven patients' hepatic arteries looked normal after stenting. Restenoses were seen in 4 patients (28.5%). Two of them needed restransplantation at 20.5 and 5.1 months after stenting. Three patients died of septic multiple-organ failure, liver abscess and biliary infection though their hepatic arteries were patent. Kaplan-Meier curve of patients survival showed 76% at 12, 24 and 36 months respectively, and graft survival was 69.5%, 69.5% and 48% at 1, 2 and 3 years after stenting, and primary hepatic artery patency rate was 63%,63%, 63% at 1, 2 and 3 years after stenting procedure.

CONCLUSION: Hepatic artery stenosis after OLT can be successfully treated with coronary stent placement with an acceptable 1-, 2- and 3-year patient, graft survival and primary stent patency rate.

4:24 PM **Abstract No. 207**

The Role of Multislice Spiral CT in the Biliary Stricture after Liver Transplantation.

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PURPOSE: To investigate the CT features of biliary stricture after liver transplantation and analyze the role of CT examination for the diagnosis.

MATERIALS AND METHODS: Compared to the results of percutaneous transhepatic cholangiography or endoscopic retrograde cholangiography of 55 patients with biliary stricture, we investigated the CT features of biliary stricture, and analyzed the efficacy of CT exam and its role for the treatment.

RESULTS: In PTC or ERC exam, 23 cases presented the ischemic biliary stricture (IBS) and 32 presented the non-ischemic biliary stricture (NIBS). The incidence of the biliary stricture in hepatic hilum (91.30%) and the irregular dilatation of the intrahepatic bile duct (69.56%) were significantly higher in the IBS cases than in the NIBS (12.5% and 37.50%, respectively) (unilateral P value < 0.01);The incidence of the anastomotic stricture (34.78%), the extrahepatic biliary dilatation (34.78%) and the regular dilatation of intrahepatic bile duct (26.09%) were significantly lower in the IBS cases than in the NIBS (84.38%, 90.63% and 62.50%, respectively) (unilateral P value < 0.01). Based on the irregular dilatation of the intrahepatic bile duct and the biliary stricture in hepatic hilum, the sensitivity, specificity, accuracy, predictive value of positive cases and predictive value of negative cases of the contrast-enhanced CT examination in IBS diagnosis were 69.57%, 87.5%, 80.00%, 80.00% and 80.00%, respectively. Besides these, CTA depicted hepatic artery stenosis in 16 of 23 cases with IBS and 5 of 32 cases with NIBS. The incidence of hepatic artery stenosis was much higher in IBS cases (unilateral P value $<$ 0.01). In IBS cases, CT depicted intrahepatic biloma in 5 cases and biliogenic abscess in 2 cases; they all had hepatic artery stenosis over severe extent in CTA.

CONCLUSION: IBS and NIBS had different CT features in the site of the biliary stricture, the site and the type of the secondary biliary dilatation. The biliary stricture in hepatic hilum and the irregular dilatation of the intrahepatic bile duct were the main features of IBS. CTA displayed the related hepatic artery stenosis.

4:36 PM **Abstract No. 208**

Transjugular Liver Biopsy: Success Rate and Complications in Liver Transplants Versus Non Transplants.

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PURPOSE: To determine the success and complications in liver transplant and non-transplant patients undergoing transjugular liver biopsies.

MATERIALS AND METHODS: All transjugular liver biopsies performed at a single institution over a period of 11.5 years were retrospectively entered into a database. Patient demographics, indication, success of the procedure, complications, and number of passes were recorded. The patients were divided into liver transplant and non transplant groups. The transplant patients were further analyzed by the type of surgical anastomosis performed. Success rates and complication rates were then calculated and compared between groups.

RESULTS: There were a total of 906 consecutive transjugular liver biopsies performed. There were 860 patients in the non transplant group and 226 patients in the transplant group. An in-line inferior vena cava (IVC) anastomosis was performed in 110 patients and a piggy back anastomosis was performed in 116. The most common indication for transjugular biopsy was coagulopathy (48.68%). The overall success rate was 94.53%. The success rate in the transplant and non transplant groups were not significantly different (94.25% and 95.0% repsectively, $p = 0.6587$). However, within the transplant group there was a significant difference between the success rates of the in-line versus piggy back IVC anastomosis subgroups (98.18% and 90.52%, $p = 0.0194$). The most common reasons for failure in all groups were failure to obtain adequate tissue (3.53%) and inability to cannulate the hepatic veins (0.99%). There were a total of 27 (2.98%) complications. There were 8 (0.88%) major complications (4 deaths, 1 code, 2 major hemorrhage, 1 hypotension). The complication rate was not significantly different between the groups.

CONCLUSION: Transjugular liver biopsy has equivalent success and complication rates. However, biopsy is more likely to fail in patients who have had a liver transplant with a piggy back IVC anastomosis.