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TCT@ACC-i2: Invasive and Interventional Cardiology

RISKS OF CARDIAC CATHETERIZATION AND RESULTS OF REVASCULARIZATION IN PATIENTS WITH END-STAGE LIVER DISEASE

Poster Contributions

Poster Sessions, Expo North

Saturday, March 09, 2013, 3:45 p.m.-4:30 p.m.

Session Title: Complex Patients, Diabetes and Renal Insufficiency

Abstract Category: 43. TCT@ACC-i2: Complex Patients, Diabetes, Renal Insufficiency

Presentation Number: 2106-220

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Background: End Stage Liver Disease (ESLD) patients are at high risk of bleeding from invasive procedures because of their coagulopathy and thrombocytopenia. Patients with untreated coronary artery disease (CAD) may have worse outcomes after an orthotopic liver transplantation (OLT), which makes cardiac catheterization necessary to accurately rule out CAD.

Methods: Records of ESLD patients who received a cardiac catheterization at UCLA medical center from 2006 to 2011 were retrospectively analyzed. Special attention was given to access site bleeding events secondary to coronary angiogram and the results of coronary angiography.

Results: There were 596 ESLD patients who received a total of 649 cardiac catheterizations. Trans-femoral catheterization was the route of entry in 95% while 5% were trans-radial. The average MELD score at the time of angiography was 21 ± 11 , with a mean platelet count of $80 \pm 56 \times 10^9$ /L and INR of 1.7 ± 0.8 . Bleeding events were encountered in 8 (1%) patients with 1 patient dying secondary to a bleeding complication from the angiogram. The prevalence of CAD was 16% (n=97). We found no difference in mortality between the CAD (26%) and No CAD (23%) groups (p=0.5). PCI was performed in 54 (55%) of 97 CAD patients and 25 (46%) of PCI patients were cleared for an OLT (12 patients received an OLT, 13 patients were listed for an OLT). The incidence of GI bleeding events in patients taking Dual Antiplatelet Therapy (DAPT) after a PCI was higher in PCI group at 3 months in 1:2 case matched ESLD control population (p=0.01). Pulmonary vascular resistance, MELD score and Left ventricle end-diastolic dimension were significant predictors of mortality on multivariate analysis.

Conclusions: The rate of bleeding complications from cardiac catheterization was only 1% in this high-risk ESLD population. Catheterization can be safely performed in ESLD patients, but meticulous vigilance should be maintained during the peri-catheterization period. Our study demonstrates that there are minimal differences in survival between ESLD patients with and without CAD that undergo angiography. The equal mortality between these groups may be attributed to successful coronary interventions.