



Prevention

PREDICTORS OF MAJOR ADVERSE EVENTS IN PATIENTS UNDERGOING ORTHOTOPIC LIVER TRANSPLANTATION

Poster Contributions
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Background: Despite improvements in post-operative outcomes, patients with cirrhotic liver disease undergoing orthotopic liver transplantation (OLT) continue to experience major adverse cardiac events (MACE). Use of routine stress testing and coronary angiography is common prior to OLT, however, the utility of routine use to improve outcomes from MACE remains unknown.

Methods: Patients undergoing OLT at our institution from 2010-2011 were reviewed. Baseline characteristics and MACE events were recorded. MACE was defined as all-cause mortality, MI, stroke/TIA, cardiac arrest, a new heart failure endpoint within three days post-OLT, systolic dysfunction, post-OLT PCI, and DVT or pulmonary embolism. A multivariate model was used to identify factors independently associated with MACE.

Results: A total of 175 patients underwent OLT between 2010 and 2011. Etiology of cirrhosis and basic patient characteristics are listed in Table 1. MACE occurred in 58 out of 175 patients (33%). Chronic kidney disease (CKD) was independently associated with MACE (OR=12.1; CI 2.32-62.80; P=0.003) while known coronary artery disease (CAD) was not associated with MACE (OR 1.2; CI 0.05-26.7; P=0.904).

Conclusion: CKD, but not CAD, was independently associated with MACE in patients undergoing OLT. Further research to identify the mechanism of CKD-associated MACE in these patients is needed.

Patient Outcomes	
Total Number of Patients (n)	175
All-Cause Mortality (n)	35
Cardiovascular Death (n)	3
Myocardial Infarction After Transplant (n)	3
Characteristics and Odds Ratio (CI; P value)	
Diabetes (n=56)	0.83 (0.69-0.32; 0.693)
Hypertension (n=63)	1.6 (0.68-3.78; 0.281)
Hyperlipidemia (n=26)	1.5 (0.50-4.57; 0.462)
Chronic Kidney Disease 1-3 (n=12)	0.92 (0.213-3.95; 0.578)
Chronic Kidney Disease 4-5* (n=14)	12.1 (2.32-62.80; 0.003)*
History of Coronary Disease (n=15)	1.2 (0.05-26.7; 0.904)
Positive Stress Test (n=8)	1.4 (0.22-9.60; 0.701)
Coronary Disease on Cardiac Catheterization (n=4)	1.4 (0.37-5.901; 0.578)

*Denote significant value; CI: 95% Confidence Interval