



TCT@ACC-i2: The Interventional Learning Pathway

OUTCOMES OF PERCUTANEOUS CORONARY INTERVENTION IN PATIENTS WITH CIRRHOSIS

Poster Contributions

Hall C

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Background: Cirrhosis is a known risk factor for increased morbidity and mortality in patients undergoing cardiac surgery, including coronary artery bypass grafting (CABG). However, whether cirrhosis is associated with poor outcome in patients undergoing percutaneous coronary intervention (PCI) is not known.

Methods: We used the 2003-2011 Nationwide Inpatient Sample databases to identify all patients aged ≥ 18 years undergoing PCI. Patients who underwent cardiac surgery, including CABG, during the same admission were excluded. Patients with a concomitant diagnosis of cirrhosis were identified using ICD-9-CM codes 571.2, 571.5 or 571.6. Multivariable logistic regression analysis was used to compare outcomes between patients with and without cirrhosis.

Results: Among 6,315,989 patients aged ≥ 18 years who underwent PCI, 13,640 (0.2%) had a concomitant diagnosis of cirrhosis. Patients with cirrhosis were younger, had a lower prevalence of hypertension, obesity, coronary artery disease, prior myocardial infarction, prior PCI/CABG, and a higher prevalence of diabetes mellitus, chronic renal failure, peripheral vascular disease, chronic pulmonary disease, congestive heart failure, atrial fibrillation, thrombocytopenia, coagulopathy and anemia. Compared to patients without cirrhosis, those with cirrhosis had significantly higher in-hospital mortality (2.9% vs. 0.8%, $p < 0.001$, adjusted OR 1.41, 95% CI 1.24-1.60). Patients with cirrhosis also had significantly higher post-procedure hemorrhage (adjusted OR 1.13, 95% CI 1.04-1.23), gastrointestinal bleeding (adjusted OR 3.10, 95% CI 2.84-3.39), blood transfusion requirement (adjusted OR 2.19, 95% CI 2.04-2.36), longer average length of stay (5.9 vs. 2.9 days, $p < 0.001$), and higher total hospital cost (\$26,038 vs. \$19,319, $p < 0.001$).

Conclusions: In patients undergoing PCI, cirrhosis is associated with increased risk-adjusted in-hospital mortality, hemorrhagic complications, longer length of stay, and higher total hospital cost. Further prospective studies are needed to determine the long-term outcomes of PCI in this high-risk patient population.