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Stable Ischemic Heart Disease

POST PROCEDURAL STROKE IN CORONARY ARTERY BYPASS GRAFTING AND PERCUTANEOUS INTERVENTIONS: AN 11 YEAR STATEWIDE ANALYSIS

Moderated Poster Contributions

Stable Ischemic Heart Disease Moderated Poster Theater, Poster Hall B1
Monday, March 16, 2015, 9:45 a.m.-9:55 a.m.

Session Title: Surgical Revascularization for Ischemic Heart Disease

Abstract Category: 27. Stable Ischemic Heart Disease: Therapy

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Background: Stroke is a catastrophic complication of coronary artery revascularization. Data comparing stroke incidence with on pump (ONP) versus off pump (OFFP) coronary artery bypass grafting (CABG) are conflicting, as are the rates of stroke with ONP and OFFP CABG versus percutaneous coronary intervention (PCI).**Methods:** The Myocardial Infarction Data Acquisition System was used to study patients who had ONP CABG (n=47,254), OFFP CABG (n=19,118), bare metal stents (BMS) (n=46,641) and drug-eluting stents (DES) (n=115,942) in New Jersey from 2002-2012. Multiple logistic and Cox proportional hazard models were used to compare the risk of post procedural stroke and mortality in patients who underwent these procedures. Adjustments were made for demographics and comorbidities.**Results:** The stroke rate in the ONP group was 1.75%, and in the OFFP was 1.29% (p<0.0001); for DES was 0.48% and BMS 0.57% (p<0.009). Compared to OFFP CABG, the risk of stroke was lowest in patients who had DES (odds ratio (OR), 0.62; 95% confidence interval (CI): 0.53-0.72), followed by BMS (OR 0.64; CI 0.54-0.75), and higher with ONP CABG (1.35; 1.17-1.55). One year mortality was lower in patients with DES compared to OFFP CABG (HR 0.74; CI 0.70-0.78). One year survival curves are shown in the figure.**Conclusion:** OFFP CABG is associated with lower rates of stroke than ONP CABG. PCI with DES is associated with lower rates of stroke, and 1 year mortality, compared to PCI with BMS and both ONP and OFFP CABG.