IMPACT OF PERI-PROCEDURAL ATRIAL FIBRILLATION ON SHORT-TERM CLINICAL OUTCOMES FOLLOWING PERCUTANEOUS CORONARY INTERVENTION

i2 Poster Contributions
Georgia World Congress Center, Hall B5
Sunday, March 14, 2010, 9:30 a.m.-10:30 a.m.

Session Title: DES I and Acute Coronary Syndromes
Abstract Category: PCI - ACS/NonStemi
Presentation Number: 2501-452

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Background: Peri-procedural atrial fibrillation (AF) may adversely impact on clinical outcomes in patients undergoing percutaneous coronary intervention (PCI) by impairing left ventricular function and increasing bleeding risk owing to additional anti-thrombotics. We aimed to assess the impact of AF at the time of PCI across different clinical settings on short-term clinical outcomes in a contemporary cohort of PCI patients, and whether AF independently predicted poorer short-term clinical outcomes.

Methods: We analysed 30-day clinical outcomes in 3307 consecutive patients with and without AF undergoing PCI from January 2007 to December 2008 enrolled in a multicentre Australian registry. 162 (4.9%) patients had peri-procedural AF.

Results: AF was associated with older age (74.1 vs. 63.9 years, p<0.0001), higher baseline creatinine (p=0.01) and lower ejection fraction (49.5% vs. 53.4%, p<0.0001). Acute coronary syndrome as the indication for the index PCI was similar between the groups. Significantly more AF patients had heart failure (16% vs. 3.9%), cerebrovascular (18% vs. 6.4%) and peripheral vascular disease (14.8% vs. 8.1%) (all p≤0.01). Peri-procedural GP-IIb/IIIa inhibitor (31.5% vs. 31.4%, p=0.98) and anti-thrombin use were no different between groups, but in-hospital bleeding complications were higher in AF patients (6.2% vs. 2.1%, p=0.001). Fewer AF patients received drug-eluting stents (23.5% vs. 34.6%, p=0.004). AF was associated with >4-fold increase in 30 day mortality (9.9% vs. 2.2%, p<0.0001), excess overall major adverse cardiovascular events (13% vs. 5.5%, p<0.001) and readmissions (17.8% vs. 11.1%, p=0.01) at 30 days. Fewer AF patients were on dual anti-platelet agents at 30 days (86.3% vs. 94.3%, p=0.004), although 28.1% were on triple therapy (with warfarin). After adjustment for significant univariate predictors, AF remained an independent predictor of 30-day outcome (OR 2.93, 95% CI 1.44-5.98, p<0.003).

Conclusions: Patients with peri-procedural AF represent a very high-risk group. Excess 30-day morbidity and mortality may be due to the higher incidence of comorbidities, bleeding complications and lower uptake of dual antiplatelet therapy post PCI.