VASCULAR DISEASE

INCREASED MORTALITY ASSOCIATED WITH IMPAIRED LEFT VENTRICULAR FUNCTION OCCURS EARLY AFTER PERCUTANEOUS CORONARY INTERVENTION

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

Session Title: Endovascular Therapy
Abstract Category: Endovascular Therapy
Presentation Number: 1058-368

Authors: Ian G. Webb, Kalpa DeSilva, Pierre Sicard, Tim Lockie, Simon Redwood, Divaka Perera, St Thomas’ Hospital, King’s Health Partners, London, United Kingdom

Background: Impaired left ventricular ejection fraction (LVEF) predicts increased hospital mortality in patients undergoing percutaneous coronary intervention (PCI). However, the impact on longer-term survival and the relationship of this to hospital outcome remain unclear. We set out to clarify this in a large, single-centre cohort.

Methods: Consecutive patients undergoing PCI at a London Tertiary Referral Centre were screened for inclusion. LVEF was categorized as Good (EF≥50%), Moderate (31-49%) or Poor (≤30%) at the time of revascularization. Demographic, procedural and outcome details were assessed by univariate and multivariate analyses. Data are mean ±SD.

Results: 2356 patients were eligible for study (age 65±11.1yrs). 43% presented as acute coronary syndromes. LVEF was a strong predictor of mortality on univariate and multiple regression analyses (30-day HR 2.47 (95% CI 1.40-4.34) and 2.1 years HR 1.99 (95% CI 1.46-2.67). 30-day mortality rates post-PCI were 0.5%, 2.1% and 8.8% for patients with good, moderate and poor LVEF, respectively (p<0.001), representing 14.7%, 32.3% and 57.5% of all deaths in each category at a mean follow-up of 2.1±1.4 years (p<0.001) (Figure 1).

Conclusion: LVEF is a strong predictor of early and late outcome after PCI, with an inverse correlation between extent of impairment and time-course for all-cause mortality. Strategies to address this at the time of intervention (eg IABP therapy) may have a beneficial effect on outcomes in this patient group.