PREDICTORS OF MORTALITY AND LONG-TERM OUTCOMES OF OCTOGENARIANS UNDERGOING TRANSRADIAL PERCUTANEOUS CORONARY INTERVENTION

i2 Poster Contributions
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Background: Octogenarians are under-represented in PCI trials. We sought to determine long-term outcomes and factors affecting long-term survival in octogenarians undergoing transradial PCI.

Methods: We retrospectively analyzed a cohort of consecutive octogenarians who underwent PCI at a tertiary care centre between January 2002 and December 2007. In-hospital events and clinical follow-up were collected by chart review and by phone interview. Long-term survival was described using the Kaplan Meier method. Characteristics of patients who died were compared to those of patients who were alive at end of follow-up. Independent predictors of long-term all cause mortality were determined by Cox proportional survival analysis.

Results: During the study period, 988 octogenarians (mean age= 84 ± 3.2 years, 48% females) underwent PCI. Complete follow-up was available for 98% of the study population. Chronic renal failure was frequent with 82% of study patients showing a creatinine clearance (CC) < 60mL/min and 15% a CC < 30mL/min. Seventy-nine percent (79%) of patients were admitted for acute coronary syndrome, average ejection fraction was 51±7%, 25% of patients had 3-vessel disease, and 31% of patients were treated with glycoprotein 2b3a inhibitors. Radial access was successful in 87% of patients. Nine percent (9%) of patients had a TIMI major or minor bleeding and 9.4% received a blood transfusion. In-hospital and one-year mortality were 4.5% and 13%, respectively. At a mean follow up of 1045 ± 606 days, mortality was 28%. Independent predictors of long-term mortality were age (HR 1.11, CI 1.05-1.18, p=0.0002), baseline creatinine (HR 5, CI 2.6-9.5, p<0.0001), previous heart failure (HR 2.2, CI 1.4-3.4, p=0.0003) and cardiogenic shock (HR 6.2, CI 3.12.5, p<0.0001). Transradial access was inversely correlated with one-year mortality (HR 0.49, CI 0.29-0.8, p=0.0048).

Conclusions: Octogenarians undergoing PCI experience frequent peri-procedural complications and high mortality rates at one year. Appropriate identification of high risk patients and favoring radial access at the time of PCI may help reduce in-hospital complications and improve long-term outcomes.