

00302 Elderly Asian Patients With ST-elevation Myocardial Infarction (STEMI) Benefit From Percutaneous Coronary Intervention

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Aims: Elderly patients presenting with ST-elevation Myocardial Infarction (STEMI) have more comorbidities and higher morbidity and mortality compared to younger patients. However, they have been described to receive lower rates of percutaneous coronary intervention (PCI) despite evidence based guidelines. This study aims to describe the impact of PCI on elderly patients with STEMI as compared to younger patients.

Methodology: The study utilized data from 2007 to 2012 from the Singapore Myocardial Infarction Registry, a national population based registry coordinated by the National Registry of Disease Office. Elderly patients were defined as ≥ 80 years of age, MAO patients defined as 45 – 80 years of age and young patients defined as ≤ 45 years of age. The primary outcome of the study was one-year mortality. Rates of PCI were compared between the three age groups. Multivariate analysis was performed to find significant predictors and protector factors of one-year mortality in each age group.

Result: There were 12,409 STEMI patients in total, with 1,109 (8.9%) young patients, 10,093 (81.3%) MAO patients and 1,207 (9.7%) elderly patients. Elderly patients had higher one-year mortality rates compared to MAO and young patients (60.6% vs 18.3% vs 4.1% respectively, $p < 0.0001$). Utilization of PCI was lower in elderly patients compared to MAO and young patients (23.1% v 62.0% v 72.3% respectively, $p < 0.0001$). PCI was a significant protective factor for one-year mortality for both MAO (Hazard Ratio (HR) 0.45, 95% Confidence Interval (CI) 0.36 - 0.55) and elderly patients (HR 0.44, 95% CI 0.30 - 0.64).

Conclusion: Elderly patients with STEMI receive lower rates of PCI compared to MAO and young patients. PCI in the elderly had a protective effect on one-year mortality. More studies can be performed to investigate the reasons for the lower rates of PCI in the elderly.