Is primary angioplasty better than thrombolytic therapy in elderly patients with acute myocardial infarction? An insight from the Global Registry of Acute Coronary Events (GRACE)

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Background: Little is known about the effectiveness of primary PCI over thrombolytic therapy in elderly patients with AMI in the current era of stents and antithrombotic agents, particularly from a multinational, community-based perspective.

Methods and results: Data were evaluated from 2212 AMI patients aged ≥65 years with ST-elevation or LBBB on ECG. All were eligible for standard reperfusion therapy. Of these, 11.4% underwent primary PCI (median delay 121 min, IQR 65, 330 min) and 31.7% received thrombolytic therapy (median delay 40 min, IQR 25, 70 min). Patients who underwent PCI tended to be sicker than those who received thrombolytic therapy, and were more likely to be given clopidogrel, ticlopidine, LMWH and GP IIb/IIIa antagonists.

Conclusion: Primary PCI is associated with reduced adjusted hospital mortality and reinfarction rates in elderly patients with AMI.

Determinants and outcomes of congestive heart failure complicating acute coronary syndromes: observations from the Global Registry of Acute Coronary Events

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Background: CAD has replaced hypertension and valvular disease as the leading cause of CHF. Data from the multinational prospective GRACE study were used to study the determinants, and impact on outcomes, of CHF (Killip class II or III) in a large unselected population of patients with ACS.

Methods and results: Data from 10,655 patients were analyzed (those with a prior history of CHF or in cardiogenic shock were excluded). Sixteen percent of patients with NSTEMI, 15% with STEMI and 9% with UA had CHF. CHF was associated with older age, diabetes, less frequent use of percutaneous procedures and beta-blockers, a greater than threefold increase in hospital death rate, and an extended period of hospitalization.

Conclusions: CHF is frequently associated with STEMI, NSTEMI and UA. Patients with CHF tend to be treated conservatively but are likely to benefit from more invasive management.

Figure. Adjusted OR for primary PCI with reference to patients treated with thrombolytic therapy

Table. Main predictors of CHF (multivariate analysis)