

Original Article

Clinical Outcome, and Survival Between Primary Percutaneous Coronary Intervention Versus Fibrinolysis in Patients Older than 60 Years with Acute Myocardial Infarction

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ABSTRACT

Objective: The aim of the present study was to compare the short-term and 6-month clinical outcome, and survival in patients older than 60 years with ST-elevation myocardial infarction randomized to either primary percutaneous coronary intervention (PPCI) or thrombolysis.

Materials and Methods: 82 patients with STEMI older than 60 years were randomized to either primary PCI or thrombolysis from September 2006 to August 2008. Angiograms were reviewed by two interventionalists not involved in the study. Patients randomized to primary PCI received Aspirin and 600 mg Clopidogrel. Heparin was administered in conjunction with PCI. Patients randomized to thrombolysis received Aspirin followed by streptokinase infusion for one hour. Rescue PCI was considered if there was ongoing pain and ST-segment resolution was <50% at 90 min. after initiation of thrombolysis or chest pain recurred with ST-segment elevation within 24 hours. All patients were followed up for 6 months. End points were reinfarction and cardiac death using competing-risks regression estimation.

Results: The mean time from hospital admission to start of streptokinase infusion was 31 ± 15 min and door to balloon time was 70 ± 25 min. There was no significant difference between the groups in the number of deaths and reinfarctions at 6 months. As expected, the fibrinolysis group had a higher rate of revascularization and heart failure.

Conclusion: The higher rates of heart failure and need for revascularization in the fibrinolysis group reinforces benefits of PPCI in patients older than 60 years. PPCI in those who are 60 years and above with AMI is safe and cost effective.

Key words: Acute myocardial infarction, fibrinolysis, primary percutaneous coronary intervention

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INTRODUCTION

Guidelines^[1] have supported the superiority of primary percutaneous coronary intervention (PPCI) over fibrinolysis, if the door-to-balloon is completed in a timely fashion. Because TIMI 3 flow is achieved in more than 90% of primary PCI patients (vs 50-60% of patients treated with thrombolytic therapy), patients who undergone primary PCI have a lower rate of mortality, reinfarction, and hemorrhagic stroke. The general rule is thrombolytic within 30 min if PPCI is not attainable within 90 min.

Primary percutaneous intervention is the ideal reperfusion strategy but is limited by availability and time to attainment. Fibrinolysis is an alternative but has lower overall efficacy and higher risk of complications, although it may be the preferred reperfusion strategy for individual cases soon after symptom onset especially given a long way and time delay to nearest primary PCI.

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