

CHANGING CONCEPTS IN TREATMENT OF ST-SEGMENT ELEVATION MYOCARDIAL

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ST-Segment Elevation Myocardial (STEMI) is a life-threatening condition that requires emergent, complex, well-coordinated treatment. Although the primary goal of treatment is simple to describe, reperfusion as quickly as possible- the management process is complicated and is affected by multiple factors including location, patient and practitioners' characteristics. Indeed, treatment of acute STEMI has progressed considerably over the past 100 years, from the early stages of bed rest and development of thrombolytics and myocardial reperfusion, to today's current strategy with a variety of mechanical and pharmacologic modalities. But the debate continues regarding optimal antithrombotic/anticoagulant and interventional strategies employed. Given the scientific and technological advantages, treatment strategies can be catered to better suit the patient and their presentation. Fibrinolytic therapy did save the lives compared to placebo, but at best restored Thrombolysis in Myocardial Infarction (TIMI) 3 Flow in 55-70% cases with increased incidence of recurrent ischaemia and infarction and intracranial haemorrhage. From Primary Angioplasty in Myocardial Infarction (PAMI) to 23 RCTs of Thrombolysis in Myocardial Infarction (TIMI) Vs Lysis showed that there is significant reduction in death (7.0% Vs 9.3%), Re-infarction (2.5% Vs 6.8%), haemorrhagic stroke (0.1% Vs 1.0%) and total stroke (1.0%) in Percutaneous Coronary Intervention (PCI) group. STEMI success has plateaued because of suboptimal salvage of myocardium and high rates of non-culprit lesion related events and reperfusion injury. Promising approaches should be further explored like hypothermia, stem cell and super-saturated oxygen therapy and PiCSO to enhance myocardial recovery and reduce infarct size.

Keywords: Treatment of STEMI, Fibrinolytic therapy

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