FIBRINOLYTIC THERAPY IN HOSPITALS WITHOUT PERCUTANEOUS CORONARY INTERVENTION CAPABILITIES IN CHINA FROM 2001 TO 2011

Poster Contributions
Hall C
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Session Title: Management Strategies in ST-Segment Elevation Acute Myocardial Infarction
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Background: Fibrinolytic therapy is a useful treatment of ST-segment elevation myocardial infarction (STEMI) in hospitals without percutaneous coronary intervention (PCI) capability. We aimed to determine the use of fibrinolytic therapy for patients with STEMI presenting to non-PCI-capable hospitals in China over the past decade.

Methods: We collected a nationally representative sample of patients with AMI during 2001, 2006, and 2011 using a two-stage random sampling design within economic-geographic regions. Detailed clinical and demographic data were collected via standardized central medical chart abstraction using standardized data definition.

Results: We identified 5621 patients with STEMI who present to hospitals without PCI capability. Of these, 3032 patients were not eligible for fibrinolytic therapy, 2624 (86%) due to long pre-hospital delay and 195 (6%) due to contraindications. The weighted rate of fibrinolytic therapy among eligible patients was 46% (95% CI: 44%-48%) in 2001, 47% (95% CI: 45%-49%) in 2006, and 50% (95% CI: 48%-51%) in 2011 (p=0.9 for trend). Among treated patients, urokinase was used in 90%, streptokinase in 6%, alteplase in 1% and reteplase in 3%. Underdosing was relatively common and varied by agent (16% for urokinase, 12% for streptokinase, 100% for alteplase, and 23% for reteplase. The arrival time was not recorded in 90% of charts. The median duration between admission to ward and therapy administration time was 40 minutes (IQR: 0-120) in 2001, 50 minutes (IQR: 10-100) in 2006, and 35 minutes (IQR: 10-85) in 2011. There was no significant association between fibrinolytic therapy and in-hospital mortality [1.08 (0.79-1.47)], composite complications [1.15 (0.89-1.48)], major bleeding [0.65 (0.27-1.63)], or minor bleeding [1.02 (0.55,1.88)].

Conclusion: Over the past decade, fibrinolytic therapy was substantially under used among patients with STEMI at non-PCI capable hospitals in China and commonly underdosed. Moreover, the predominant drug of choice lacks extensive evidence for this indication. The absence of an association with lower mortality raises concerns that the current implementation of this therapy may not be effective.