Abstract: P4629

Long-term outcomes in patients with ST-segment elevation myocardial infarction according to modalities of reperfusion therapy: data from China Acute Myocardial Infarction (CAMI) registry

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On behalf: China Acute Myocardial Infarction Registry

Topic(s):
ST-Elevation Myocardial Infarction (STEMI)

Citation:

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Background: Although primary percutaneous coronary intervention (pPCI) is the optimal reperfusion method for ST-segment elevation myocardial infarction (STEMI), it remains difficult to implement in many areas. Some STEMI patients have to accept fibrinolytic therapy and no reperfusion therapy instead.

Purpose: The aim of this study was to describe the impact of reperfusion therapy on the long-term outcomes of STEMI patients in China.

Methods: Using data from the China Acute Myocardial Infarction (CAMI) registry, we analyzed the 2-year outcomes of 18,075 STEMI patients symptom onset within 7 days from January 2013 to September 2014 according to the type of reperfusion therapy. The primary endpoint was a composite of major adverse cardiovascular event (MACE), defined as all-cause mortality, myocardial infarction or stroke.

Results: 7798 (43%) were treated with pPCI and 1798 (10%) underwent fibrinolysis; 8479 (47%) did not receive any reperfusion. The 2-year MACE was 9.6% following pPCI, 15.7% following fibrinolysis, and 21.5% for patients without reperfusion therapy (P<0.0001). Adjusted hazard ratios for 2-year MACE were 0.71 (95% confidence interval [CI] 0.65-0.78, P<0.0001) for pPCI versus no reperfusion and 0.92 (95%CI 0.82-1.03, P=0.16) for fibrinolysis versus no reperfusion. Compared with patients without reperfusion, fibrinolysis only showed benefit in patients presented within 3 hours of symptom onset (HR 0.70, 95%CI 0.57-0.85, P=0.0005), whereas pPCI was associated with significantly decreased 2-year MACE rate in patients presented within 3 hours (HR 0.53, 95% CI 0.44-0.64, P<0.0001), 3-6 hours (HR 0.60, 95% CI 0.51-0.71, P<0.0001) and >6 hours (HR 0.86, 95% CI 0.76-0.97, P=0.01) of symptom onset.

Conclusions: In a real-world setting, early reperfusion is the optimal strategy for STEMI. Fibrinolysis was not associated with better outcome in STEMI patients admitted > 3 hours of symptom onset in Chinese real world setting.
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Conclusions: In a real-world setting, early reperfusion is the optimal strategy for STEMI. Fibrinolysis was not associated with better outcome in STEMI patients admitted >3 hours of symptom onset in Chinese real-world setting.

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**Graph:**

- **Cumulative Event Rate%**
- **Years**
- **HR (95% CI) P-value**
  - Primary PCI: 0.71 (0.65-0.78) < 0.0001
  - Fibrinolysis: 0.92 (0.82-1.03) 0.1556
  - No reperfusion: Reference --

**No. at Risk**
- Primary PCI: 7798, 7205, 7033, 4300
- Fibrinolysis: 1798, 1554, 1514, 914
- No reperfusion: 8479, 6933, 6646, 3921