



Acute Coronary Syndromes

SEX-RELATED DIFFERENCES IN ACUTE CORONARY CARE AMONG PATIENTS WITH MYOCARDIAL INFARCTION: THE ROLE OF PRE-HOSPITAL DELAY

Moderated Poster Contributions

Acute Coronary Syndromes Moderated Poster Theater, Poster Hall B1
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Background: We sought to investigate sex-related differences in access to care among patients with myocardial infarction (STEMI) in order to identify gender-related factors associated with outcomes.

Methods: We studied 7457 patients enrolled in the ISACS-TC registry 2010-2014 (ClinicalTrials.gov NCT01218776). Outcome measures were: inhospital mortality, time delay to call emergency medical services (EMS), home-to-hospital delay using EMS, door-to-needle and door-to-balloon times and the overall time to treatment from symptom onset. Constant variables included in logistic regression analyses were: age, risk factors, severity of clinical presentation, reperfusion therapies, and concurrent acute medications. Time to treatment from symptom onset was used as dummy variable.

Results: Women were less likely than men to receive care within the benchmark time for reperfusion therapy (time to treatment from symptom onset <12 hours: 76.0% vs 80.4%, $p < 0.001$). Accordingly, women were less likely than men to undergo reperfusion therapy by either p-PCI or fibrinolysis (69.5% vs 73.5%, $p = 0.003$). Time delay to call EMS was longer in women (median: 60 min vs 55 min). As well, home-to-hospital delays ranged from 5 min to 3 days, with a home-to-hospital delays ≥ 60 min in 70.3% of women vs 29.7% of men. There were no significant differences in door-to-needle (median: 28 min vs 26 min) and door-to-balloon (median: 45 min vs 45 min) times. Major ($z > 4$) determinants of poorer rates of reperfusion therapies included time to treatment from symptom onset ≥ 12 hours (adjusted OR: 5.37, CI: 4.58 - 6.31) Killip class ≥ 2 (OR: 1.53, CI: 1.27-1.86) and history of prior heart failure (OR: 2.77, CI: 1.99 to 3.87). After adjustment, women had greater inhospital mortality rates than men (OR: 1.34, CI: 1.01-1.77). Sex differences in in-hospital mortality rates were no longer observed in the cohort, when time to treatment from symptom onset <12 hours was included in the multivariable analysis (OR: 1.31, CI: 0.98 -1.74).

Conclusion: Sex differences in outcomes persist among STEMI patients, as fewer women receive timely reperfusion therapy. Pre-hospital delays in women experiencing STEMI remain unacceptably long.