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Abstract 18828: Role of Age and Sex in Short-term Mortality After STEMI in Eastern Europe: the ISACS-TC Initiative

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Abstract

Introduction: Previous works have shown that women hospitalized with STEMI have higher short-term mortality rates than men. However, it is unclear if these differences persist among patients undergoing contemporary primary PCI.

Hypothesis: We sought to investigate whether the risk of in-hospital death after STEMI is higher in women than men and, if so, to assess the role of age, medications and primary PCI in this excess of risk.

Methods: From January 2010 to May 2014, a total of 6690 patients have been hospitalized and received medical treatment for STEMI in 57 hospitals, referring data to the International Survey of Acute Coronary Syndromes in Transitional Countries (ISACS-TC) registry (NCT01218776). Logistic regression model was adjusted to covariates significantly different between groups in univariate analysis. The endpoint was in-hospital mortality after STEMI.

Results: There were 2070 women and 4620 men. Women were older than man, with a higher prevalence of risk factors and comorbidities. Fewer women than men presented within 2 hours from symptom onset ($p<0.001$). They presented more ($p<0.001$) Killip class $\geq$ 2 than men A significantly ($p<0.001$) lower proportion of women was treated with acute medications, secondary prevention therapies and primary PCI. The in-hospital mortality was significantly higher for women than for men (12.8% versus 6.9%, $p<0.001$). The gap in sex-specific mortality narrowed if restricting the analysis to men and women undergoing primary PCI (7.1% versus 3.5%, $p<0.001$). A significant interaction was found between sex and age. Women under 65 had higher early mortality risk than men of the same group (OR: 1.52, 95% CI: 1.02-2.25, $p=0.03$) after adjusting for age, comorbidities and treatment variables. Women aged 65-74 had the same risk of men (OR: 1.34, 95% CI: 0.88, 2.05, $p=0.16$). The same results applied to women aged over 75 (OR: 1.14, 95% CI: 0.80-1.61, $p=0.46$).

Conclusions: Younger age is associated with higher short term mortality rate in women with STEMI even after adjustment for medications, primary PCI and other coexisting comorbidities. This difference was no longer observed in older women

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