GENDER-RELATED DIFFERENCES IN SURVIVAL AND PREDICTORS OF SURVIVAL FOR PATIENTS UNDERGOING HYPOTHERMIA AFTER CARDIAC ARREST

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Background: Acute coronary syndrome, the most common cause for cardiac arrest, is more common in men. Use of hypothermia after cardiac arrest (HACA) has increased, but gender-based differences in survival and predictors of survival are unknown.

Methods: We analyzed 179 patients (56 women) with cardiac arrest treated by standardized HACA protocol at a single center from Jan. 2008 to May 2012, compared demographics and clinical variables between genders, and evaluated overall and gender-specific predictors of survival.

Results: Differences in baseline characteristics are shown (Table). Overall predictors of survival were age ≤65 (odds ratio [OR] 3.1; p=0.01), ventricular arrhythmic arrest (OR 2.8; p=0.04), cardiac cause of arrest (OR 3.1; p=0.03), witnessed arrest (OR 2.9; p=0.02), urgent cardiac catheterization (cath) (OR 3.7; p=0.01) and bradycardia during HACA (OR 2.6; p=0.02). Predictors of survival among women were cardiac cause of arrest (OR 5.6; p=0.03) and no use of vasopressors during HACA (OR 5.4; p=0.02); predictors of survival among men were absence of hypertension (OR 2.9; p=0.01), use of paralytics during HACA (OR 3.4; p=0.01), bradycardia during HACA (OR 3.2; p=0.01) and urgent cath (OR 4.4; p<0.01).

Conclusion: Women had a lower in-hospital survival rate after HACA compared to men on univariate analysis. Predictors of survival differed between genders on multivariate analysis. These findings have important implications in triaging, managing and determining patient prognosis.