
Value of ATRIA risk score and gender in predicting adverse events in patients with myocardial infarction

To the Editor,

I have read the article by Çetinkal et al. (1) entitled "Comparative performance of Anticoagulation and Risk factors In Atrial fibrillation and Global Registry of Acute Coronary Events risk scores in predicting long-term adverse events in patients with acute myocardial infarction" with great interest, which was published in *Anatol J Cardiol* 2018; 20: 77-84. In their study, the authors divided 1627 patients with acute myocardial infarction into three risk groups according to ATRIA risk score: ATRIA 0, ATRIA 1-2, and ATRIA >3. They reported that ATRIA risk score >3 was found to be an independent predictor of major adverse cardiac events in this group. This is a well-written study, and I would like to draw attention to the gender-related differences that can affect the results of the present study.

Çetinkal et al. (1) reported that ATRIA risk score >3 had a predictive value for major adverse cardiac events in patients with acute myocardial infarction. As female gender represents 1 point in ATRIA risk score, I think that gender becomes a more important factor in this study population. In the present study, none of the patients in ATRIA 0 group and 18.7% of the patients in ATRIA 1-2 group were females, while 38.1% of the patients in ATRIA >3 group were females. It has been shown that female patients have a higher risk for poor outcomes in acute myocardial infarction than male patients (2). Moreover, it has been described that psychological pathologies and social problems like depression, anxiety, and anger are possible risk factors associated with poor outcomes in female patients with cardiovascular diseases (3). It has also been demonstrated that pre-conditioning and pre-infarction angina is related with decreased left ventricular systolic function in males with acute coronary syndrome compared with that in females (4). In conclusion, because 38.1% of the study population in ATRIA >3 group are females, to verify whether the ATRIA risk score provides an additional risk stratification beyond that provided by conventional risk scores, gender-related factors should be taken into consideration in the present study.

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