Recurrence acute myocardial infarction and atrial fibrillation

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I have read the article entitled Predictors and in-hospital prognosis of recurrent acute myocardial infarction by Cao, et al.\textsuperscript{[1]} with great interest, recently published in journal. The investigators reported that recurrent acute myocardial infarction (AMI) patients presented with more severe coronary artery conditions. Age, diabetes mellitus (DM) and reperfusion therapy were independent risk factors for recurrent AMI, and recurrent AMI was related with high risk of in-hospital death.\textsuperscript{[1]}

AMI is often complicated with cardiac arrhythmias, and the most common cardiac arrhythmia is atrial fibrillation (AF).\textsuperscript{[2]} Post-infarction AF is associated with an increased, cardiogenic shock, pulmonary oedema, and re-infarction rate.\textsuperscript{[3]} Prevalence of AF increases strikingly with advancing age, ranging from less than 0.5% of the population younger than 40% to 5% of those aged 65 and older and more than 10% of those surviving to the eighth decades of life.\textsuperscript{[4]} A recent meta-analysis of cohort and case control study showed that patients with DM had an approximately 40% greater risk of AF, but this varied from 70% in studies adjusted only for age and sex to 24% in those adjusted for more variables.\textsuperscript{[5]}

In this context, considering association between post-infarct AF and worse outcomes, correlation of this result\textsuperscript{[1]} with post-infarct AF might be beneficial.

References


Authors’ reply

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Our article entitled Predictors and in-hospital prognosis of recurrent acute myocardial infarction reported that age, diabetes mellitus and reperfusion therapy were independent risk factors for recurrent acute myocardial infarction (AMI), and recurrent AMI was related with a negative prognosis.\textsuperscript{[1]} The focus of this article were recurrent AMI and its impacts, given that this article was not designed to capture many details of atrial fibrillation (AF) and its impacts on AMI prog-
nosis, we unfortunately did not have data about the heart rhythm of the patients.

Just as Prof. Levent Cerit addressed, AF was very common in AMI patients. It was reported that AF occurred in 3% to 11% of patients with acute ST-segment elevation myocardial infarction. The China Acute Myocardial Infarction (CAMI) registry showed that the overall incidence of AF was 3.0% in Chinese patients with AMI during hospitalization. Compared with AMI patients without AF, patients with new-onset AF had higher rates of net adverse clinical events, mortality, reinfarction, stroke, and major bleeding. AF was a strong independent predictor and associated with increased in-hospital and long term mortality rates. In addition, HORIZONS-AMI trial reported that AMI patients with new-onset AF had significantly higher rates of ischemic events, including reinfarction and definite or probable stent thrombosis.

References