Reviewer’s report

Title: Rapid Predictors for the Occurrence of Reduced Left Ventricular Ejection Fraction between LAD and non-LAD related ST-Elevation Myocardial Infarction

Version: 0 Date: 07 Nov 2015

Reviewer: Mario Iannaccone

Reviewer's report:

In this paper Chen et al. evaluate in a retrospective fashion difference of clinical and angiographic predictors for reduced LVEF in STEMI patients with LAD or non-LAD culprit vessels. They included 315 patients in LAD group and 238 in non-LAD groups. Patients in LAD group had a significantly reduced EF compared with non-LAD. At multivariate analysis predictors of reduced EF were different between the two groups. The article is generally well presented, with a good English language (just a few correction are needed), statistical analysis is well performed, figure and tables are excellent.

I have just one major issue: Patients with multi-vessel stenosis represent 50-60% of the population. This could be an important confounding factor in the results. Nevertheless in non-LAD group multi.vessel disease is a significative predictor of reduced EF at multivariate analysis. How multivessel was defined? Patients with culprit lesion non-LAD had LAD critical stenosis? On the other side patients in LAD group with multivessel disease had critical lesion on RCA or LCx? Please report these data, moreover a sensitivity analysis excluding patients with critical multivessel disease could give more strength to your conclusions.

Minor Issue:

Abstract

Please specify the primary and secondary end-point and how many days after PCI the echocardiography was performed (4-6 days)
Methods

By-pass graft occlusion were excluded?

Patients with multi-vessel stenosis represent 50-60% of the population. This could be an important confounding

Please specify primary and secondary end-point

Results

It is not necessary to repeat the enrolment period (page 8 line 31) please delete

There were any differences in baseline clinical or angiographic characteristics between LAD and non-LAD group? Does LAD group have a significantly reduced EF compared with non-LAD group?

Are the methods appropriate and well described?

If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?

If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?

If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?

If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics
Quality of written English

Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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