Reviewer's report

Title: The prognostic value of mechanical left ventricular dyssynchrony in patients with acute coronary syndrome.

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Reviewer: victoria delgado

Reviewer's report:

The present study evaluated the prognostic value of several echocardiographic LV dyssynchrony parameters in 227 patients with acute coronary syndrome. The authors showed that, based on ROC curve analysis, the area under the curve of LVEF was larger than for any other LV dyssynchrony parameter. However, it is not demonstrated that LVEF has incremental prognostic value than LV dyssynchrony parameters since the authors have not demonstrated that this difference is statistically significant and in any case it would be more correct to provide the Harrell’s C statistic of a Cox regression model including each tested parameter or the net reclassification improvement index. Other comments:

1.-Please provide more details of the study population: how many did undergo coronary angiography and received complete revascularization? What were the values of troponin or CK? What was the treatment at discharge? What was the heart rate during the echocardiogram?

2.-The Cox-regression model may be not correct since the authors included all the LV dyssynchrony parameters which may be interrelated. I would recommend creating a baseline model with well-known prognosticators such as age, gender, location of myocardial infarction, multivessel disease, levels of troponin, diabetes and renal dysfunction. After that please include separately each parameter to be tested and calculate the Harrell’s C statistic for each model. That would give the authors an approximation of how powerful is LVEF relative to LV dyssynchrony parameters.

3.-Please provide a figure of how to assess LV dyssynchrony based on speckle tracking.

4.-Please pay attention to spelling mistakes (for example the first one in the abstract and introduction: echohcardiography.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
nothing to disclose