Reviewer’s report

**Title:** INTERATRIAL BLOCK AND ATRIAL REMODELING ASSESSED USING SPECKLE TRACKING ECHOCARDIOGRAPHY

**Version:** 0  **Date:** 22 Jan 2018

**Reviewer:** Spiridon Katsanos

**Reviewer’s report:**

The authors have presented a novel study correlating interatrial block (IAB) on surface ECG with LA speckle tracking echocardiography. Strain rate during atria booster pump function (SRa) and reservoir period (SRs) and maximal peak LA longitudinal strain in the reservoir phase were associated with P wave duration on ECG after adjustment of other major confounding variables including age hypertension and diabetes. The study provides some pathophysiological insights in LA dysfunction. The lack of prospective follow up to give clinically relevant prognosis of the combined included factors is a major limitation acknowledged by the authors. In this view, the SRa cut-off related with the presence of IAB is of no clinical interest and should not be included in the abstract.

Also

1. The study included prospectively patients according to IAB on surface ECG and no AF history, however it does not provide information about the recruitment of patients (outpatient clinic, in-hospital patients, healthy volunteers eg). Also were they consecutive patients?

2. The authors have made an extensive statistical analysis to support their conclusions. However, since in general such a sample is not difficult to obtain in everyday clinical practice, the number of included patients is surprisingly low.

3. Please rephrase in the abstract section «after adjusting…..respectively» (clarify dependent/independent variables)

4. Page 5 line 48 «tracking» is «is tracking»

5. Please improve table legends. They should be self explanatory. Eg: Figure 3 define the dependant variable, Figure 1,2,4 : explain the comparisons

**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:

Acceptable

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