Reviewer’s report

Title: Evaluation of left atrial volume and function using single-beat real-time three-dimensional echocardiography in atrial fibrillation patients

Version: 0 Date: 09 Jan 2017

Reviewer: Vinay Thohan

Reviewer’s report:

Single center (100 patients, 50 normal and 50 Atrial Fibrillation) echocardiographic investigation evaluating the role of RT3D with 2D assessment of LA volume. Authors conclusions indicate good correlation between the two modalities. This conclusion is not compared with gold standard (MRI) or correlated with a clinical endpoint. Variations of this type of analysis has been previously published indicating the benefits of 3D ECHO for structure and function. The results of larger volume and lower function among patients with AFIB compared with controls is not surprising. Recommend editorial assistance with language and grammar throughout the manuscript. Specific concerns

1. Is it feasible to completely blind readers to AFIB status due to rhythm strip and ECHO features.

2. Why would a cost be higher for 2D vs 3D?

3. What is the superiority of 3D compared with 2D (clinical)?

4. How did image quality or heart size influence correlation or analysis

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.

No

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:

Not suitable for publication unless extensively edited

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