Reviewer’s report

Title: Reduced flow in the left ventricle after anterior acute myocardial infarction: a case control study using 4D flow MRI

Version: 0 Date: 04 Oct 2019

Reviewer: Jung Bernd

Reviewer's report:

This is a well-written manuscript about the application of 4D flow MRI in patients after anterior myocardial infarction. Briefly, the analysis of intra-ventricular flow has shown that flow velocities in the apex are significantly reduced compared to healthy controls. The authors claim that their findings may be a valuable tool for further larger studies on LV thrombus risk assessment.

4D flow data provide much more information than solely the averaged through-plane velocity component in three intra-ventricular regions and averaged KE values as presented by the authors. What I am somehow missing is at least a discussion about the use of the other spatial flow components and further parameters that have been assessed by other researchers, for instance analysis of flow efficiency / different flow regimes (e.g. as proposed by Ebbers et al.), vortex flow analysis etc. in relation to your study (see also van der Geest and Garg. Advanced Analysis Techniques for Intra-cardiac Flow Evaluation from 4D Flow MRI).

Specific comments

Methods: remove the X in "…were analysed by XXX".

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?
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Yes
Are the conclusions drawn adequately supported by the data shown?
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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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