Reviewer’s report

Title: Left ventricular systolic function changes in hypertrophic cardiomyopathy patients detected by the strain of different myocardium layers and longitudinal rotation

Version: 1 Date: 29 Jun 2017

Reviewer: P Collier

Reviewer’s report:

1) In general, strain can be difficult to measure in HCM patients due to varying thickness of the septum vs. free wall so that the automated ROI needs to be significantly modified. I would request that the authors at least include some examples of their region of interests, how they traced the layers and provide examples showing adequate tracking.

Answer provided.

Reviewer - additional comment:

The high standard deviations are indicative of the high variability with this technique - when narrow ROI is chosen to try and assess myocardial layers, higher strain values (more deformation) are recorded and more noise is introduced - this is a significant limitation of the technique - this should be pointed out in the limitations section.

2) No reproducibility data is provided.

Answer provided.

Reviewer - additional comment:

Please describe the methodology in detail how this data was obtained.

3) Prior studies have shown that strain reduces proportionately with the degree of hypertrophy/fibrosis in HCM. How many of the HCM patients had LBBB which may account for the abnormal rotation?

Answer provided.

Reviewer - additional comment:

Please specify this exclusion in the article.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

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:

Needs some language corrections before being published

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