Reviewer's report

Title: Diagnostic and Predictive Value of Speckle Tracking Echocardiography in Cardiac Sarcoidosis

Version: 0 Date: 14 Sep 2019

Reviewer: Ahmed Abuzaid

Reviewer's report:

Cardiac infiltration is an important cause of death in sarcoidosis. TTE has limited sensitivity for the detection of CS. Strain imaging can add value for routine TTE in the work up scheme for CS.

GLS cutoff of −17% showed sensitivity and specificity 94% for detecting CS. Patients who experienced MCE had worse GLS than those who did not (P=.0003) previous reports. The authors present a similar results and infarct more extensive strain analysis including the LV and RV with outcomes data in adequate sampled population and follow up. They also added the circumferential and radial strain analysis; the authors to be congratulated for their work. Few notes to be noted:

1- The control group had no CMR data, for comparison, if no data available, the authors need to clarify this in the methods section.

2- The authors to acknowledge the referral bias in this retrospective analysis.

3- Additionally, there is no mention of the effect of different pharmacologic therapies mainly steroids in the analysis including, and or other comorbidities as PE, worsening cardiomyopathy that can affect the strain results. Such confounders and others needed to rule out to remove any confounding on GLS and outcomes. If not possible, or not available, please added in the limitation section

4- The authors to refer to the recent consensus document of the EACVI/ASE/Industry Task Force to standardize deformation imaging and to be included in the citation

5- To enhance the paper; can the authors add a diagnostic approach figure based on their observation for suspected CS cases and how strain can help in the diagnostic scheme and/or risk stratify based on the collected outcomes

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

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If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

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Please indicate the quality of language in the manuscript:

Acceptable

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