Reviewer’s report

Title: Realization of fully automated quantification of left ventricular volumes and systolic function using transthoracic 3D echocardiography

Version: 0 Date: 07 Nov 2017

Reviewer: Lorenza Pratali

Reviewer’s report:

In the manuscript entitled "Realization of fully automated quantification of left ventricular volumes and systolic function using transthoracic 3D echocardiography" the aim was to evaluate the effectiveness of this new technology in measuring left ventricular volume and ejection fraction in patients with different heart diseases.

In the results the authors showed higher reproducibility for automated 3DE in comparison with manual methods.

- It's not clear the mean time for measuring left ventricle volumes. Probably this information is in Table 1 as Volume rates. If yes, a unit of measure should be added

- Please add any information on the mean frame rate use to acquire the images

- How did you evaluate the images' quality?

- Please define the feasibility of this method, at least in the patients enrolled that by definition had high image quality. It's important to consider that this method is not feasible in patients with kinetic abnormalities of the apex, in AF patients, and in patients with hypertrophy. Moreover in a >10% patients the automated method required a manual adjustment.

- The manuscript needed some English editing i.e. pag 4 line 69: by at bedside patients or in patients with implanted devices

- Considering this time consuming method, which is the principal utility of this method in the busy clinical practice. Should be interest if the authors made the comparison also with 2D echo's left ventricle volumes evaluation in order to calculated the variability and the time for reading high quality images.

Level of interest

Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests

Quality of written English

Please indicate the quality of language in the manuscript:
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