This is an interesting manuscript addressing an important and practical clinical problem. Please address the following comments:

1. Please tone down the first sentence in the abstract. It is too generic and too strong. 2D is not obsolete and remains the standard technique in echocardiography.

2. Please provide more details on the study population under investigation: reasons to undergo echocardiography etc.

3. Try to list advantages and disadvantages of the use of single beat acquisitions. Information that may be lost.

4. Is there any role for contrast in the subset of patients with poor acoustic window?

5. The intra- and inter-observer variability is lower than 10% for all the measurements in group A whereas is higher in Group B. Please address.

6. Please define the 2 groups also in the tables.

7. No comparison with 2D is given.

8. In the limitations of the study, the use of only 1 type of 3D machine is acknowledged. A comment on standard technology in order to avoid the far-west that has characterized tissue Doppler should be given.

9. Please expand the clinical implications of the study.

10. You may interested in citing the following article: Baseline and follow-up assessment of regional left ventricular volume using 3-dimensional echocardiography: comparison with cardiac magnetic resonance Jenkins C, Marwick TH. Cardiovascular Ultrasound 2009, 7:55 (19 November 2009)

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests