Reviewer's report

Title: Assessment of Left Ventricular Dimensions and Primary Mitral Regurgitation Severity by 2D Echocardiography and Cardiovascular Magnetic Resonance.

Version: 1 Date: 25 October 2013

Reviewer: K. M. John Chan

Reviewer's report:

A well written paper and a well conducted study providing new information on the comparison of MR severity grading using echo and CMR.

Comments:

Minor revisions

1. The authors do not provide any data on the end systolic diameters or end systolic volumes for either echo or CMR, yet these values are more important and relevant compared to the end diastolic values when deciding on the timing of mitral valve surgery or reverse LV remodelling following surgery. This is also particularly relevant as the authors have reported a difference in the mitral regurgitant volume between CMR and echo, and the LVESV is used in the calculation of the regurgitant volume in CMR. I would suggest that the authors include both these parameters in their analysis and provide a comparison of the LVESD and LVESV values between echo and CMR as they have done for LVEDD and LVEDV.

2. I would suggest that the title be more appropriately changed to "Assessment of LV volumes..." in place of "Assessment of LV diameters...." as CMR is the gold standard in LV volume assessment rather than LV dimensions, and the authors also make no reference to LV dimensions in their abstract or conclusions but instead refer to LV volumes.

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:

None