Reviewer's report

Title: Use of a highly-sensitive cardiac troponin I assay in a screening population for hypertrophic cardiomyopathy: a case-referent study

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Reviewer: Martin Donato

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In the present study, McGorrian et al evaluated both cTnI and hsTnI are shown to have a graded, positive association with measures of muscle mass in persons with and at risk of HCM. Highly-sensitive TnI may have better discrimination for HCM than the standard assay.

The study is interesting and original. I make the following comments to assist the authors to hopefully a very strong work.

1. The authors evaluated the diastolic function through the transmitral doppler (E/A ratio). It would be helpful if the IVRT is measured in these patients and correlate it with the Tn assays.

2. It is known that strain rate imaging has been shown to be useful in differentiating nonobstructive HCM from hypertensive LV hypertrophy. However, tissue Doppler–derived strain imaging has technical limitations due to its angle dependence. Speckle-tracking echocardiography directly assesses myocardial motion from B-mode (2D) images and is independent of angulation between the ultrasound beam and the plane of motion. The authors should be considered used this technique

Minor comments:

1. Supplementary table 1: In the title the word “between” appears twice.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I have no competing interests.