Author’s response to reviews

Title: Left ventricular short-axis systolic function changes in patients with hypertrophic cardiomyopathy detected by two-dimensional speckle tracking imaging

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Author’s response to reviews:

Dear Dr. Susana Ravassa,

Thank you for your email.

I have revised our manuscript, according to the comments and suggestions of yours, and responded, point by point to, the comments as listed below. Thank you for your consideration.

Looking forward to hearing from you.

With kindest regards,

Yours sincerely

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Reply to the editor:

(1) Please, have the manuscript reviewed by an expert in scientific English.

Answer: We are sorry for our poor English. We have our manuscript reviewed by an expert in scientific English. If the changes can not up to your standard, we would revise again. Thank you.

(2) The authors have recently published a study in BMC Cardiovascular Disorders entitled: “Left ventricular systolic function changes in hypertrophic cardiomyopathy patients detected by the strain of different myocardium layers and longitudinal rotation” BMC Cardiovasc Disord. 2017 Aug 2;17(1):214. doi: 10.1186/s12872-017-0651-x. In this study, the authors conclude that 2-dimensional speckle tracking echocardiography shows better sensitivity to detect systolic dysfunction in patients with hypertrophic cardiomyopathy. The same conclusion is reached in the current study. However, and surprisingly, this reference has not been included in the Introduction or Discussion part of the current manuscript. The authors must discuss the novelty of these results by comparing them with the previously published results, and strengthen the added diagnostic value of these findings as compared with the ones in the above mentioned paper.

Answer: Thanks to the editor, On 2017 Aug 2;17(1):214, we published a manuscript “Left ventricular systolic function changes in hypertrophic cardiomyopathy patients detected by the strain of different myocardium layers and longitudinal rotation” in BMC Cardiovasc Disord. This research was mainly on the longitudinal cardiac systolic function in HCM patients. However, the short-axis function as circumferentially and radially is also essential like longitudinally function. So, in this study, we mainly analysed the short-axis function in HCM patients.

We had changed the “Background” section like this: Two-dimensional speckle tracking imaging (2D-STI) can assess myocardial function accurately [10]. Currently, researches mainly focussed on myocardial function by detected the global myocardial strain, strain rate and torsion [11-16]. As we know, a normal myocardium is contained three layers: endocardial, middle myocardial and epicardial layers [17-18]. Endocardial and epicardial layers are longitudinal oriented, and the middle myocardial is circumferential oriented. When the longitudinal and circumferential myocardium contract and relax, the cardiac myocardium deformation occurs in three directions: longitudinally, circumferentially, and radially. Our previous study showed that in HCM patients, the longitudinal function was damaged, even with normal LV ejection fraction [19], however, short-axis cardiac function as circumferentially and radially is also essential like longitudinally function. So, in this study, we mainly analysed the short-axis function in HCM patients.
(3) The authors include reiterative information throughout the manuscript. For instance, in the “Basic information in HCM patients and the normal subjects” section, the first line: “There were significant differences in LAD, IVSD, LVPWD and Ve” contains the same information as the second and third lines “The values of LAD, IVSD, LVPWD and Ve in HCM patients were larger than normal subjects”.

Answer: We had changed the results.

(4) In line with the previous comment, figures 1 and 2 contain the same data as Table 2, figure 3 and table 3 are the same and figure 4 and table 4 are exactly the same. Tables and figures should not report the same information.

Answer: We had changed figure 1 and figure 2, and deleted figure 3. Figure 4 is the correlation test in SPSS, so we wanted to keep it. Thank you.

(5) P values are never equal to zero. You may indicate P<0.001 or P<0.0001.

Answer: We had changed the p value into p<0.001.

(6) All tables should have footnotes explaining all the abbreviations used.

Answer: We had changed. We have modified the footnotes explaining all the abbreviations used.

(7) Please be careful and use always the same abbreviations. For instance, for peak systolic circumferential strain: CS is used in table 2 and PSCS is used in figure 1.

Answer: We had changed in table 2.