Reviewer’s report

Title: The Relationship between Mitral annular systolic velocity and Ejection Fraction in Patients with Preserved Global Systolic Function of the Left Ventricle

Version: 3 Date: 5 August 2013

Reviewer: Konstantinos Farsalinos

Reviewer’s report:

Overall, the revised manuscript is very much improved. I have some minor remarks for corrections that can be made without the need to re-evaluate the manuscript, but one important question related to the reported results of table 6.

Major Compulsory Revisions

1. Table 6
   HTN/DD (n=10): Sm (avg) ICC was 0.7945 (95% CI = 0.7234 - 0.8222)
   HTN/DM (n=10): Sm (avg) ICC was 0.7945 (95% CI = 0.7234 - 0.8222)
   HTN/DD/DM (n=10): Sm (avg) ICC was 0.7945 (95% CI = 0.7234 - 0.8222)
   I have mentioned in my previous review that in this table, 3 groups had the exact same intraclass correlation coefficient and the same 95% CI (both for 1 and 2 observers), up to the 4th decimal. This is impossible to happen, and the authors have not explained how can this happen! It can only be attributed to error in reporting of the results.

Minor Essential Revisions

1. Page 6, Results Paragraph 1. “In this study were enrolled 56 patients with hypertension (HTN, n=56), 65 patient with HTN and diastolic dysfunction (HTN/DD, n=65), 52 patients with HTN and diabetes mellitus (HTN/DM, n=52) and 65 patients with HTN, DD and DM (HTN/DD/DM, n=65).”
   This should be rephrased as: “Participants were patients with hypertension (HTN, n=56), HTN and diastolic dysfunction (HTN/DD, n=65), HTN and diabetes mellitus (HTN/DM, n=52) and patients with HTN, DD and DM (HTN/DD/DM, n=65).”

2. Page 6, Results, Paragraph 2. “This approach presents an opportunity to predict EF by equation.”
   Should be rephrased as: “This approach presents an opportunity to predict EF by using an equation.”

3. Page 6, Results, Paragraph 2. “The quantification by equation has an advantage in its minimal dependency on Sm from the IQ as well as a disadvantage in the complicated mathematical model that requires memorization.”
of the two constants.”
Should be rephrased as: The quantification of EF by equation has an advantage that Sm is minimally dependent on IQ, as well as a disadvantage that the mathematical model requires memorization of the two constants.”

4. Page 7 paragraph 3. “However, the changes of the EF/Sm(avg) correlation were not significant and there were no need to correct the defined mathematical model.”
Should be rephrased as: “However, changes of the EF/Sm(avg) correlation were not significant; therefore there was no need to correct the defined mathematical model.”

5. Page 9, Discussion, paragraph 1: “Spectral pwTDI could be used as an alternative examination when EF is difficult to assess, or the results are controversial.”
Please remove the comma.

6. Page 9, Discussion, paragraph 1: “This approach (quantification) is based on a linear equation where estimated Sm(avg) should be substitute and than calculate EF. This is a simple, chipper and faster method in contrast to cardiac MRI, CT or contrast echocardiography.”
Should be rephrased as: “This approach (quantification) is based on a linear equation where estimated Sm(avg) could be used to calculate EF. This is a simple, cheaper and faster method compared to cardiac MRI, CT or contrast echocardiography.”

7. Page 10, paragraph 2: “The reason is that there were no significant differences between the correlation coefficients.”
Should be rephrased as: “The reason is that no statistically significant differences between groups in EF/Sm(avg) correlation coefficients were observed.”

8. Table 3, 4, 5. EF values should be mean ± SD.

**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