Author's response to reviews

**Title:** Peak systolic velocity using color-coded tissue Doppler imaging, a strong and independent predictor of outcome in acute coronary syndrome patients

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**Version:** 3  **Date:** 26 March 2013

**Author's response to reviews:** see over
Dear Sirs

Thank you for considering our manuscript "Peak Systolic velocity using color-coded tissue Doppler imaging, a strong and independent predictor of outcome in acute coronary syndrome patients" for publication and the invitation to once again resubmit a revised version. According to comments from the reviewers, we have now revised our manuscript and have submitted a detailed list of changes made and responses to the comments. All authors have approved submission of the manuscript and the manuscript has not been published and is not being considered for publication elsewhere in whole or part in any language except as an abstract. None of the authors have any potential conflict of interest relative to this manuscript.

Reviewer's report

Title: Peak systolic velocity using color-coded tissue Doppler imaging, a strong and independent predictor of outcome in acute coronary syndrome patients

Version: 2 Date: 12 March 2013

Reviewer: victoria delgado

Reviewer's report:

Major compulsory:

1) Table 5 is not clear. The p-values are missing (also in the text, page 8).

Response: We have added p-values for all parameters both in table 5 and in the text page 8.

2) The authors should elaborate on the prognostic value of peak systolic velocity and the lack of independent association of 2D strain with prognosis. This is against many previous publications: Staton et al. Circ Cardiovascular Imag 2009; Hung et al. J Am Coll Cardiol 2010; Antoni et al. Eur Heart J 2010; Bertini et al. Circ Cardiovascular Imag 2012.

Response: All the publication mentioned above is now included in our reference list. We think we have elaborated sufficiently on the prognostic value of peak systolic velocity and the lack of independent association of 2D strain with prognosis. The fact that our results go against earlier publications is discussed in the discussion part page 10. The most possible reason in our opinion is
that 2d-Strain have higher demand of good image quality compared to TDI which affects our results as all our images is collected in the everyday clinical setting outside a research laboratory.

3) What is the novelty of the study?

Response: Our study population is an unselected ACS-population where all patients was consecutively included regardless of ventricular function or comorbidity which is not the case with earlier publications. This is also the first study that covers all these five parameters, including PSV in this clinical setting.

4) The authors should consider performing a net reclassification index analysis or evaluate the incremental value of peak systolic velocity over other echocardiographic parameters using the Harrell's c-statistic.

Response: We agree that evaluation of the incremental value of PSV is of high interest. However, the aim of this study was to compare the prognostic value of PSV with that of EF, WMS, E/e'-ratio and 2D-strain. To reliably estimate the incremental value of PSV on top of baseline characteristics, eGFR and NT-proBNP would probably require a much larger study group and is beyond the scope of this study.

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:

No conflict of interest to disclose