



SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	Annual Research & Review in Biology
Manuscript Number:	2013_ARRB_7229
Title of the Manuscript:	Initial insight to effect of exercise on maximum pressure in the aortic root using 2D fluid-structure interaction model

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
<p>The authors did a good effort addressing previous suggestions. The general structure improves a bit but results and discussion presentation are still weak.</p> <p>1- Working hypothesis, primary aim(s)/objective(s) needs to be clearly stated. The authors may explore deeply their results. Slopes and percentages don't tell the full story of your findings. Try further, for example using Bland-Altman plots for comparing methods (consider a reference method).</p> <p>2- They stated a clear difference between their previous and hardly referred work (ref 27), however almost 2/3 of the presented figures and table are identical. Please do not misunderstand this comment. figures and You should refer to your previous work and avoid using identical tables. An example may be your figure 4 which slightly different from figure 5 in ref 27.</p> <p>Please highlight the new results of this work in comparison with the previous.</p> <p>Discuss how these new findings improve the previous results. In the actual work this remained unclear and it may be important for the readers that follow your work to understand your progress. Author may explore when the model fails (which condition?, are those clinically relevant?, etc...), which clinical situation may benefit of their work, may it complement imaging and/or invasive assessment? How valvular diseases may affect the model? Is model error prediction adequate for clinical use? A good number if clinicians may consider an error of 10% as big.</p> <p>Please consider reviewing again grammar and typing. A good improvement was done in consideration of previous version, but it is still hard to read and typing mistakes lead to distraction.</p> <p>Finally, authors have a good piece of work but results may be used to show the straight of it which is not the case in the actual manuscript. Results may support your working hypothesis which is unclear from the beginning. This was commented in previous review. This reviewer thanks the effort of the authors and hope his suggestions can help them to improve their work.</p>	<p>The authors thank the reviewer for their comments, and are pleased that the reviewers are satisfied with all the changes made to the manuscript following the original review.</p> <p>1-</p> <p>- "Study design and methodology" and "Aims" sections was amended in this regard and highlighted in green</p> <ul style="list-style-type: none"> - Hypothesis: we are able to numerically estimate MPLV with combination of numerical and clinical data - Aim: prediction of MPLV at different heart rates - Results (slopes & percentage): drawing comparison in the form of percentage/slope can show the differences clearly. Concerning the point that there are not several comparable study, we believe that there is no need to report them in the form of plot. <p>2- this research is another result of our study. And we cannot change the whole of manuscript and that is not necessary.</p> <p>some minor changes were applied in table 1. The legends of fig 4 was changed in comparison with that of in ref 27 and the ref was applied for . please see the caption of that. Please see workflow diagram. As easily can be seen, the all results related to ref 27 were cited with their ref.</p> <p>please see line 57-61 as describes the difference of this research with the ref 27. Please consider that this is the first time that the mechanical-based model was proposed to estimate MPLV. The diseases conditions would be considered for the future study as cited in limitation. And we are not responsible to extend the model entirely.</p> <p>To adequate for clinical usage, a further study should be done. In this regard, we applied "Initial outcomes from the subject show that results are in good agreement of literature values. The method, however, requires to be validated by additional experiments, comprising independent quantifications of MPLV." At conclusion section of abstract.</p> <p>Overall, we are thankful of you for your critical and useful comments, however, we confess that most of them improved the quality of the manuscript. But, as you probably know accomplishing some of them need more clinical instruments and taking considerable time. We believe that they must be done for the future study to validate the newly current proposed model.</p>