Reviewer’s report

Title: Cardiac Surgical Outcome Prediction by Blood Pressure Variability Indices Poincaré plot and Coefficient of Variation: an Observational Study

Version: 0 Date: 21 Oct 2019

Reviewer: Ary Serpa Neto

Reviewer's report:

The authors present a retrospective study assessing the performance of Poincaré plots and coefficient of variation (CV) independently by measuring intraoperative BP variability on postoperative outcomes of patients undergoing cardiac surgery. The paper is well written and the authors should be acknowledge for the work. My comments are described below:

ABSTRACT

1. I suggest describing better in the Methods which variables were considered BPV

2. The results of the analysis and models should be included in the Results, and not only if it was good or not

3. The conclusions should answer the original question and be based on the data presented. The original aim was to assess the indices of BPV and outcome. Thus, the conclusions should be based on these findings

METHODS

1. I suggest including a section specific describing the outcomes considered

2. How renal failure was determined?

3. Which variables were considered in the models and how they were selected? This should be described

4. Which kind of imputation was used? This should be described

RESULTS

1. I suggest reporting the C-statistics and its 95% CI for each model (baseline and baseline + each of the BPV indices) in a plot to facilitate the comparison and interpretation
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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