Reviewer’s report

Title: PRESERVATION OF RENAL FUNCTION IN CARDIAC SURGERY PATIENTS WITH LOW CARDIAC OUTPUT SYNDROME: LEVOSIMENDAN VS BETA AGONISTS

Version: 4 Date: 10 Jul 2019

Reviewer: Research Square

Reviewer's report:

"STATISTICAL REVIEWER ASSESSMENT:

Is the study design appropriate for the research question (considering whether the analyzed population accurately reflects the design and whether you see any problems with control/comparison groups, e.g., likely confounders)?

Yes - overall design, population, and control groups are appropriate

Are methodologies adequate and well implemented (considering whether assumptions are addressed and whether analyses are robust)?

No - there are major issues

Are the analyses adequately communicated (considering whether reporting details are adequate and whether figures and tables are well labeled and described)?

No - there are major issues

Does the interpretation accurately reflect the analyses without overstatement (considering whether limitations/bias are acknowledged and whether accurate descriptors, e.g., 'significant', are used)?

No - there are major issues

Could an appropriately REVISED version of this work represent a statistically sound contribution?

Maybe - with major revisions

STATISTICAL REVIEWER COMMENTS:
The study is well designed and written. The results are important as the provide an alternative to beta-agonists.

Abstract

I would suggest the statistical test be included in the results section with the appropriate statistics (more than simply reporting the p-value).

Introduction

The introduction requires a paragraph and statement that explains the research gap. It currently reads as mostly a summary of previous work with no connection to the current objectives of the study.

Methods

The authors should explain why they used a quasi-experimental study design. There should be a statement regarding the sample size calculation. Why did they select 50 patients?

The data analysis strategy is confusion and poorly written. It would benefit from English language editing as well. Also, identify the statistical software used.

Results

The structure of the section is unorganized and it makes it difficult to read. Please start off with a description of the sample and refer to Table 1 for details. Then discuss the inferential findings.

Table 3. The column with 'ns' can be removed.

Discussion

The study is well analyzed and situated within the existing literature. I would suggest that the authors explain the clinical implications of the study findings. Moreover, the limitations section should be expanded and included as a separate paragraph to improve its readability.

REQUESTED REVISIONS:

The statistical analysis is appropriate. I would encourage that the authors explain why they selected the inferential tests and consider non-parametric testing."
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

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.

No

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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Please complete a declaration of competing interests, considering the following questions:

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