Reviewer’s report

Title: Dual effect of the Valsalva maneuver on autonomic nervous system activity, intraocular pressure, Schlemm’s canal, and iridocorneal angle morphology

Version: 0 Date: 06 Sep 2019

Reviewer: Lin Cheng

Reviewer's report:

The study investigated the dual effect of Valsalva maneuver on autonomic nervous system activity, intraocular pressure, Schlemm's canal, and iridocorneal angle morphology, and presented plausible results regarding body adaptation to Valsalva maneuver. However, there are certainly some points need to be fully addressed before we can consider it for publication.

1. The clinicians usually take more than 15s to do OCT, IOP measurement during VM. How they obtain ECG and measure BP, IOP, and take OCT in such a short time needs to be explained in the text.

2. In figure 1, please use a frame to indicate which area is enlarged and show the enlarged image in the other place. Don't stack on top of the original area. For all bar images, please plot with dots and bars simultaneously; this is easier for the readers to see the differences among groups.

3. There are some typo or grammar errors in the main text. For instance, line 145, line 283-284. Full name PACG in line 271.

4. Is there any literature support that Mean ocular perfusion pressure (MOPP) is calculated as: MOPP = 2/3MAP - IOP?

5. "its influence on IOP could be counteracted even reversed by the changes of blood flow and ocular anatomy" -- I don't think the last sentence of your conclusion is one of your findings. You are speculating something might explain IOP elevation in phase 2, but this is not your key findings in the study. Also, a lot of other key results were not well summarized in the conclusion.

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.

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:

Needs some language corrections before being published

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None to declare.

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