Reviewer’s report

Title: Disrupting prolonged sitting reduces IL-8 and lower leg swell in active young adults

Version: 0  Date: 31 Jul 2019

Reviewer: Ian Walshe

Reviewer's report:

Dear Authors,

The study aimed to compare disrupted sitting to prolonged sitting on salivary IL-8 and leg swell. It is an interesting, relevant topic, and is generally well written. However, I do have some comments for consideration.

Abstract

Line 33 - you state the exercise load is 0.05% bodyweight. Is this correct? For a 70 kg male, this would be a load of 3.5 g

It would be useful to include p values in the results of this abstract.

Background

The background is well written. It would be useful to include more information on the specific role of IL-8 in prolonged sitting or sedentary activity.

Methods

Line 110-111 - Was water consumption recorded? There is some evidence to suggest that hydration status is associated with edema. This may influence your results if water intake was not controlled for or recorded.

Line 118 - Could you change height and weight to stature and mass?

Line 121 - It is not clear why there is some discrepancy between collection times.

Line 159 - Could you include what type of post hoc analysis was done?
The term 'effect size' is confusing as it could be construed as the size of the effect of your results. Using another term such as 'sample size estimation' would be preferable.

Results

It is not clear how many participants took part in the study. Please include information on how many males and females took part in the study. Including the characteristics of each sex.

Do you have the results for power output during the cycle exercise?

Please check the effect sizes in Table 1. There appears to be very large effects, which are not supported by the results.

The error bars in Figure 1 appear to cross zero at baseline. Is this just the fact that the error bar is negative?

There are no error bars for figure 2.

Discussion

The discussion is well written and acknowledges the limitations of the study.

Line 203 - You have not reported an increase in leg swell in your results. Could you amend this?

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.

No

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

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