Reviewer’s report

Title: Water extract from processed Polygonum multiflorum modulate gut microbiota and glucose metabolism on insulin resistant rats

Version: 4 Date: 22 Jan 2020

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses one or several testable research questions? (Brief or other article types: is there a clear objective?)

Yes - there is a clear objective

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

Yes - the approach is appropriate

EXECUTION - Are the experiments and analyses performed with sufficient technical rigor to allow confidence in the results?

No - there are minor issues

STATISTICS - Is the use of statistics in the manuscript appropriate?

Yes - appropriate statistical analyses have been used in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

Yes - the author's interpretation is reasonable

OVERALL MANUSCRIPT POTENTIAL - Has the author addressed your concerns sufficiently for you to now recommend the work as a technically sound contribution? If not, can further revisions be made to make the work technically sound?
Probably - with minor revisions

PEER REVIEWER COMMENTS:

GENERAL COMMENTS: The author have adequately addressed my comments. However, the new data provided appears to be inconsistent with the data included in the original submission. Specifically, The fasting blood glucose reported in Figure 3B does not appear to match the one presented in the new figure S2A. In figure 3B FBG is reported in the order CON<MET<PPM-H<PPM-L<MOD. However, in figure S2A the order of FBG is Con<PMRP<H<MET<MOD<PMRP-L (It doesn't help that different colors and group names are used.) Also, Figure S2A the error bars are missing.

I can understand that my nitpicking can be frustrating for the authors but I am sure that they will also appreciate the necessity for having a stringent peer-review process.

REQUESTED REVISIONS:

Please recheck FBG and OGTT data and ensure they are consistently reported.

Add error bars to figure S2A.

The revised parts in the body (in red) could also benefit from a language edit.

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.

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

Needs some language corrections before being published

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