Reviewer’s report

Title: Mangosteen (Garcinia mangostana) flesh supplementation attenuates biochemical and morphological changes in the liver and kidney of high fat diet-induced obese rats

Version: 1 Date: 31 Mar 2018

Reviewer: Taofeek Ajiboye

Reviewer's report:

Adyab et al present protective effects of mangosteen flesh on biochemical and morphological changes in the liver and kidney of high-fat diet-induced obese rats. The design of this study is well conceptualized. However, there are issues that authors must address. For example, the English language in the manuscript is poor making it difficult to understand the content. Here are some few comments:

1. The title need revision. How can you have protective effect on biochemical changes?
2. Page 2, line 42..... Mangosteen pericarp extract has been shown to give inhibitory activity towards pancreatic lipase and may have potential use for obesity.... Mangosteen can not give inhibitory effect. Revise sentence
3. Page 2, line 49..... You can not divided rats and still use them for research. The appropriate word is randomised
4. How are you sure the chow is normal. Just use rat chow. If you are sure it is normal you will need to present information and data proving that it is normal
5. Abbreviate high-fat diet as HFD
6. Page 2, line 56. State the result explicitly. What is dyslipidemia? Did you assess dyslipidemia or the levels of lipid profile parameter? authors should wait till discussion before interpreting results
7. page 2, line 57.... the plasma enzymes assessed should be spelt out
8. Why did authors choose to assess plasma antioxidant enzymes and not tissue antioxidant enzymes? Plasma is not appropriate for assessing antioxidant enzymes
9. what is the effect of HFD on body weight
10. Your conclusion should be based on your findings
11. You assay for proinflammatory biomarkers, yet you did not present them in the abstract
12. Authors should provide the voucher No. for the plant
13. Preparation of G. mangostana flesh should be presented before administration. You can not prepare extract for administration after you have administered the extract
14. Animal groupings should be separated from feed formulation. it is difficult to comprehend in its current state
15. Authors should present the tables and figures in a separate files and not embedded in the text.
16. The discussion is poor. Authors should discuss the implications and significance of the data obtained in the context of available literatures
17. Conclude based on the findings of this study.
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:

Not suitable for publication unless extensively edited

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

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?
If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal