Author's response to reviews

Title: Effects of Gelam and Acacia honey acute administration on some biochemical parameters of Sprague Dawley rats

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Author's response to reviews: see over
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SUBMISSION OF MANUSCRIPT: REVISED VERSION

Please find enclosed a revised version manuscript entitled: "Effects of Gelam and Acacia honey acute administration on some biochemical parameters of Sprague Dawley rats" which I am submitting for exclusive consideration for publication as an article in BMC Complementary & Alternative Medicine.

We have managed to revise the manuscript as suggested by the reviewers. For the details, please refer to attachment.

We hope our revised manuscript has fulfilled the requirement for publication in the journal. Your kind consideration on this matter is highly appreciated. Please address all correspondence concerning this manuscript to me via e-mail waniryani@gmail.com.

Sincerely,

Wan Iryani

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Reviewer 1

Minor concerns:

1. The write-up is characterized by some grammatical/typo errors that need to be urgently addressed. For instance, “therefore” is repeatedly mentioned in the last two sentence of the background section of the abstract etc.

   *Grammatical/Typo errors have been checked and revised throughout the manuscript.*

2. Like in table 1 and 2 the statistical signs were not well assigned within and outside the tables

   *It has been changed.*

3. There were no arrows to indicate the histopathological observations on the photomicrographs/plates

   *It is not necessary since the whole photomicrographs showed no differences between Control and rats fed with the honey(s).*

Major concerns:

1. The author did not explain why the choice of SD rats not Wistar or mice.

   *SD rats are the most common rats used in a consumption study and parallel to OECD guideline.*

2. The basis of using both male and female rats and also reflection of that in the conclusion.

   *It has been explained in the discussion and mentioned in the conclusion.*

3. Looking at the table 2 one can see that the results are contrary to the some part of the conclusion because the liver and kidney function indices were higher than the control and yet the authors recommended that the honey(s) are safer.

   *It has been checked and revised accordingly.*

4. The authors did not actually discuss the implication of most the results in the discussion part in details....like variation on the results of male and female rats, liver enzymes etc.

   *It has included in discussion.*

5. Since the work is basically on the acute administration there may need for the reader to know at least the proximate compositions of the said honey(s).

   *It is already mentioned in the introduction.*
Reviewer 2

1. You can study the impact of consumption (short-term, long-term) of honey on health and proper development of the consumer. Therefore, I suggest not to emphasize the aspect of toxicity studies and highlight the impact of honey on biochemical parameters. So the title of the publication could be: “Effects of Gelam and Acacia honey acute administration on some biochemical parameters of Sprague Dawley rats.”

   It has been changed as suggested.

2. Dawley with capital D - please pay more attention to the correct spelling)!! These changes should be taken into account both in the abstract and in the discussion.

   It has been changed as suggested.

3. One might also ask why the authors have used for comparison sucrose solution and not a mixture of glucose and fructose. Glucose and fructose are the dominant sugars in honey, on the other hand the amount of sucrose in the mature honey is insignificant. In my opinion this is a methodological mistake that should be explained.

   It has been explained in the discussion.

Other observations:

1. The abbreviation SD is associated with the phrase "standard deviation". Therefore, I propose to introduce the abbreviation SDR for Sprague Dawley rats.

   We used SEM in the study.

2. “Animals were observed for toxic signs at 0, 30 minutes, 1, 2, 4 and 24 h and for next 14 days” in my opinion sentence “Animals were observed at 0, 0.5, 1, 2, 4 and 24 h and for next 14 days” would be better.

   It has been changed as suggested.

3. (P<0.05) replace with (p<0.05). This means the lowercase letter “p” to denote the probability. Replace in the entire text.

   It has been changed as suggested.

4. The last sentence in the abstract is: “Our results suggest that GH and AH at 2000mg/kg body weight of SD rats are safe and appropriate for other analyses.” Safe and appropriate for analyses?? Maybe for consumption?? By the way, why in the end of the sentence is the red dot? (pdf version).

   It has been changed as suggested. There was a typo error in the text.
5. Background section: Please reconsider the following sentence (confusing fragments underlined).
“In Malaysia, honey can be divided into floral honey and dew honey such as Gelam, Tualang, Pineapple, Coconut and Acacia [6]. In this study, a floral honey; Gelam honey (GH) and honey from honey dew; Acacia honey (AH) were selected. They are monofloral honey,...

*It has been revised.*

6. “[glucose, triglycerides (TG) and total cholesterol]” replace with “(glucose, triglycerides (TG) and total cholesterol)”

*It has been changed as suggested.*

7. Results section: “However, in female rats, body weight gain of treated group with GH and AH had no significant decreased compared to the control group.” So why there is (*) over the gelam bar?? However, in female rats, body weight gain of treated group with GH and AH had no significant decreased compared to the control group --- Meanwhile, in female rats, body weight gain of treated group with GH showed significant decreased (p < 0.05) compared to the control group.

*It has been checked and revised accordingly.*

8. I suggest giving up the charts (1 and 2) and present data in tables. Groups which do not differ significantly should be marked with the same letters.

*We have remained the charts since we want to demonstrate differences in the parameters clearly using the charts and it is better than presenting the data in table.*

9. “The percentage reduction in body weight of rats fed with GH and AH were 21.73 % and 19.12 % respectively, compared to normal.” According to my calculation (on the basis of the data submitted), reduction in body weight is around 3%. Please recalculate.

*It has been checked and revised accordingly.*

10. “In energy efficiency, male rats fed with sucrose (0.0412) was not significantly increased compared to normal (0.0314), however it was significantly increased compared to rats fed with GH (0.031). In female rats fed with GH (0.016) and AH (0.0185) respectively, demonstrated significantly decreased in energy efficiency compared to the control (0.0197) and S groups (0.0226).” but (*) suggests significant different versus control!!

*It has been checked and revised accordingly.*

11. Hepatic function indices section: Too large amount of data is a repetition of what is already presented in the table.

*It has been revised accordingly.*
12. Renal function parameters section: “Meanwhile, in GH it showed not significantly decreased …” If there is no statistical difference that means there is no decrease. This sentence is unnecessary. Need to double check.

   It has been changed.

13. Discussions section: “…Gelam honey (GH) and Acacia honey (AH) were selected because they are monofloral honey, contain high level of antioxidant properties, exhibit many biological activities and are presenting floral honey and honey from honey dew respectively.” Think it over.

   It has been checked and revised accordingly.