Review of: "Toxicity of Olea africana in Artemia Salina and Mice"

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Potential competing interests: No potential competing interests to declare.

The manuscript is very interesting. However, i provide some suggestions to improve it.

Abstract

-Replace the topic Cytotoxicity by larvae toxicity because the artemia salina is not cells. The topic cytoxicity must used only for the cells. Please correct it in the all manuscript

- Reprecise the context of this study. You can show the past data about toxicity of Olea africana and reveal the insuficient about toxicity studies
- For the conclusion it was written : “Given these findings, prolonged administration of*Olea africana* is associated with significant toxic concern. As a result, caution should be exercised when using the extract”. Please you show the letal (toxic) dose.

Introduction

Reinforce the introduction by the limits of toxicity past studies about Olea africana.

Methods

2.2. Collection of the plant:

Kindly, provide the number of certification or identification of Olea africana

Please indicate the part of plant used

2.3. Sample preparation and extraction

Please, explain why you choose the ethanol extract for this study

2.4. Animals used in experiments

Please indicate, the weight and the age of mice used for experiments

2.5. Brine shrimp cytotoxicity assay

- Please, change the topic “Cytotoxicity” by larvae toxicity. Please check my previous explanation about it.
- We need the reference or rule of appreciation to evaluaten the degree of larvae toxicity of extract

2.6 Acute toxicity assay in mice

-The references of this part were very ancient. Please update. The methodology is questionable. Why do you use the different doses 2000; 2048; 2560; 3200 mg/kg 4000; 5000 mg/kg for this test? Please provide the more explanation. How many mice made up each group of animals?

-Why do you use the international standard reference of acute toxicity test called OECD 423 or OECD 425?

2.7. Sub-acute toxicity in mice

I have some questions about this part

- Why do you choose 100, 300 and 600 mg/ml as doses for this test?
- How many mice constitued the each group?
- How do you collect the data about body weight of mice during the 28 days experiment ? Please provide the more informations about this process
- Why you don't collect the hematological and biochemical data before (day 0) the starting experiment?

3. Results

- For the body weight of mice, i suggest strongly to present the results in evolution of Body from day 0, day 7, day 14, day 21 and to day 28
- For gain of body weight, are you sure that there is no difference between 600 group and control group? Please check the statitical analysis
- It written “The mean ALT levels in mice given distilled water only were significantly lower than those in mice given 100 mg/kg *($p<0.0001$)* or 300 mg/kg *($p=0.0007$)* dose of the extract. (Table 2). There was no significant difference in the mean ALT levels between mice that received only distilled water and mice given 600 mg/kg of the extract *($p=0.1813$).* (Table 2)” Please, explain why we don't have any significant difference at 600 mg/kg in comparision to control group and at lower dose (100 and 300 mg/kg), there is the significant difference. It's incomprehensible because the histological study show the severe degeneration of hepatic at 600 mg/kg

4. Discussion

It is necessary to improve the discussion by use the differents observations concerning the results.

Conclusion

It is necessary to improve the conclusion by showing the important results and the toxic dose.