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

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Potential competing interests: No potential competing interests to declare.

Thanks for inviting me to review this valuable study.

Here is my review of the research article:

The study design and findings are sound. With some additional details and discussion, this will be a strong contribution to the literature on the toxicity profile of this medicinal plant. I hope the following suggestions are helpful for the authors.

This is an interesting study examining the toxicity of Olea africana in animal models. The authors have conducted appropriate experiments to evaluate the acute and subacute toxicity of the ethanol extract of Olea Africana leaves in mice and brine shrimp. The methods and results are clearly described. I have a few suggestions to strengthen the study further:

Introduction:

- The introduction provides good background on the uses and phytochemistry of Olea africana. However, more information specifically relating to the toxicity and safety of this plant would strengthen the rationale for conducting this study. Are there any reports of adverse effects or toxicity associated with Olea africana use?

Methods:

- The methods for the brine shrimp and acute toxicity studies seem appropriate. For the subacute study, more details should be provided on the animal housing conditions, diet, etc. How were the doses selected for the 28-day repeated dosing study? This should be justified based on the results of the acute toxicity study.

- More details are needed on how the biochemical and hematological parameters were analyzed. What equipment was used? What specific methods/kits? This is important for reproducibility.

- For the histopathological analysis, it would be useful to describe the staining methods used and how the slides were evaluated - just mentioning a "standard light microscope" is vague.

Results:

- The results are clearly presented with good use of tables and figures. The statistical analysis seems appropriate.

- For the biochemical and hematological parameters, it would be good to highlight the key findings in the text since there are many parameters tested. Which changes are most indicative of toxicity?

Discussion:

- The discussion provides a good interpretation of the toxicity findings relating to the liver, kidney, blood parameters, etc. The authors could comment more on the clinical significance and mechanism of toxicity.

- Limitations of the study design should also be addressed. The 28-day repeated dosing protocol has limitations in detecting chronic toxicity. Analysis of additional endpoints would also strengthen the toxicity assessment.