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

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Potential competing interests: No potential competing interests to declare.

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Drear Dr. Alberto Bedogni

Peer Review Team, Qeios

The manuscript entitled "Toxicity of *Olea africana* in *Artemia Salina* and Mice" submitted to Qeios, has been reviewed. The comments are included at the bottom of this letter.

Sincerely,

Dr. Samaneh Rahamouz-Haghighi

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Comments for authors

1- In Abstract

- Insert the trinomial scientific name.
- What was the reason for choosing ethanolic extract in this study?
- Given the following sentence, there is no need to mention the maximum and minimum concentrations in expressing LC_{50}.
  [The lethal concentration of the extract responsible for 50% mortality in brine shrimp (LC_{50}) was 2257.84 µg/mL (702.97-7367.95)]
- I suggest changing the title to Toxicity assessment of *Olea africana* on *Artemia Salina* and Mice as a model organisms (completely optional)
- (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). Provide more details.
- -Please use keywords from the Medical Subject Headings (MESH) list of index medicus (http://www.nlm.nih.gov/mesh/MBrowser.html).

2- In Introduction

- In most cases, there is no need to cite multiple references for a single sentence. Please mention the most recent reference.
- The scientific name should be mentioned in full in its first citation and in abbreviated form in subsequent citations.
- The introduction is too short. More rationale is needed to justify this research. What's the problem? Why look at this plant?
- The authors, citing reference 19, have mentioned that studies on the safety of this plant are scarce. Hasn't there been any studies on this plant since 2009? I want the authors to measure the cytotoxic effect of this extract on normal cell lines to improve their paper. Do the authors have this possibility? Has a study been done on this? Please mention it in the introduction.

3- In Materials and Methods

- In methods, the geographical coordinates of the place of collection of plants and the number of herbariums should be determined.
- Oral acute toxicity: where are the mice from?
- In the brine shrimp cytotoxicity assay, the concentrations are mentioned as 10 µg/mL, 100 µg/mL, and 100 µg/mL of the extract. Please correct it.
- Incorporation of positive controls in toxicity assays provides key information about susceptibility/resistance of tested microorganisms. No information is provided on the use of positive control in Artemia salina. In this regard, it is recommended to cite this paper (Potassium dichromate as positive controls): https://doi.org/10.1080/14786419.2023.2225688.

4- In Results

- In Table 1, what do the numbers 702.97-7367.95 signify? And they are also repeated in the results and discussion. Mention it in the materials and methods section, no need to repeat it again.

- If the aim is to assess the toxicity of extracts, why did the author not use a biocompatibility test on human red blood cells? In this regard, it is recommended to cite this paper: https://doi.org/10.1016/j.sajb.2022.06.058
- The results are not clear to draw any conclusion.

5- In Discussion

- The author should better express the logical connection between all the study findings (not significantly different with control and toxic effect on liver tissue)
- Replace old references with new ones.