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

Mohsina Patwekar[1]

1 Luqman College of Pharmacy

Potential competing interests: No potential competing interests to declare.

1. How does the LC50 value of 2275.84 µg/mL for the ethanol leaf extract of Olea africana in brine shrimp compare to the LC50 value of the aqueous extract of Olea africana in a previous study? What implications does this difference have on the toxicity profile of the ethanol extract?
2. The study mentions that the ethanol leaf extract of Olea africana may be classified as non-toxic based on the Globally Harmonized System of Classification and Labeling of Chemicals. Could you provide more information about the specific criteria used in this system to determine toxicity classification, and how it applies to the extract in question?
3. In the subacute toxicity study, the extract induced a non-significant effect on mean RBC, Hb, and MCHC levels. Could you elaborate on the potential implications of this finding on erythropoiesis and overall cell health?
4. The study reports significantly higher WBC levels in animals treated with the extract, suggesting an immune challenge. Could this effect be a potential concern in the context of using the extract for medicinal purposes?
5. The study observes significantly lower mean sodium levels in mice given the low and high doses of the extract. What might be the possible reasons for this effect, and how could it impact cellular functioning?
6. The study indicates that high doses of the extract are associated with cholestatic liver injury based on the significant elevation in total protein, direct and total bilirubin levels. Could you explain the clinical implications of cholestatic liver injury and the significance of these findings?
7. The elevated mean ALT, AST, ALP, and GGT levels in mice receiving the extract suggest potential liver damage. What specific histopathological changes were observed in the liver and kidney, and how do they support the conclusions regarding significant toxic concern?
8. Were any signs of acute toxicity observed during the 28-day subacute toxicity study, or were the observed effects only evident after prolonged administration of the extract?
9. Considering the potential toxic effects observed in the study, are there any known safe dosage ranges for the ethanol leaf extract of Olea africana that could be recommended for medicinal use?
10. Given the significant toxic concern associated with the ethanol leaf extract of Olea africana, what further research is needed to better understand its safety profile and potential therapeutic applications?

plz cite:

Quazi A, Patwekar M, Patwekar F, Mezni A, Ahmad I, Islam F. Evaluation of wound healing activity (excision wound model) of ointment prepared from infusion extract of polyherbal tea bag formulation in diabetes-induced rats. Evidence-

Based Complementary and Alternative Medicine. 2022 Jun 6;2022.

Patwekar M, Patwekar F, Mezni A, Sanaullah S, Fatema SR, Almas U, Ahmad I, Tirth V, Mallick J. Assessment of antioxidative and alpha-amylase potential of polyherbal extract. Evidence-based Complementary and Alternative Medicine. 2022 May 31;2022.

Nalawade AS, Gurav RV, Patil AR, Patwekar M, Patwekar F. A comprehensive review on morphological, genetic and phytochemical diversity, breeding and bioprospecting studies of genus Chlorophytum Ker Gawl. from India. Trends in Phytochemical Research. 2022 Mar 1;6(1):19-45.