

# Review of: "An Investigation of The Phytochemical Richness of Fresh Musa Paradisiaca L. (Plantain) Stem Juice and Its Anticonvulsant Potential on Pentylenetetrazole (Ptz)-Challenged Rats"

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Potential competing interests: No potential competing interests to declare.

Review for the manuscript entitled with:

## AN INVESTIGATION OF THE PHYTOCHEMICAL RICHNESS OF FRESH MUSA PARADISIACA L. (PLANTAIN) STEM JUICE AND ITS ANTICONVULSANT POTENTIAL ON PENTYLENETETRAZOLE (PTZ)-CHALLENGED RATS

In general, the manuscript is informative and well-structured. I tried to address the entire content and articulate a few comments and questions. So, I would be happy if the authors took those comments for their paper's improvement.

- As you mentioned, the traditional claim about the plant is its ability to cure seizure disorders and convulsions, but your study aimed to determine its prophylactic effect. Why?
- It is better to mention the following things on plant collection and identification: Permission for plant collection, Standard guidelines or protocols you followed, The full report of the identification from the herbarium (local names, scientific name, and family), and the specified voucher number
- On animals used: Mention why you used both mice and rats, the sex of the animals, and why you used 4 animals per group. Most experimental studies use six animals per group.
- You have mentioned that animal handling was done according to the "National Research Council's Guide for the Care and Use of Laboratory Animals," but you didn't have a veterinarian as a team member to ascertain it.
- Why do you prefer to use the fresh plant parts? It is known that the pharmacological effects of the plants are due to their chemical constituents, not the water. Fresh plant samples are difficult for dose calculations because of the unknown water content in them. It would have been better if you had prepared a dry extract and made the juice using appropriate solvents.
- What is your basis for the test doses (50, 75, and 100% (v/v))?
- On the acute toxicity test: The absence of death/mortality alone cannot be enough to assure that the plant is nontoxic. You have to include the presence/absence of other signs of toxicity.

- In the methodology, you have stated that you aimed to find the LD50, but I didn't see it in your results.
- It is also better to mention the route of administration for the acute toxicity test because the toxicity profile may vary along with the varying routes of administration.
- It is better if you clearly describe the materials/instruments and experimental procedures used for phytochemical screening.
- In the conclusion's last sentence, "However, this study provides pharmacological evidence for the folk claim behind the use of *Musa paradisiaca* stem juice to manage epileptic convulsions or seizure disorders," please make it clear why you start with 'However.'