

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.

This study explores the phytochemical composition of fresh Musa Paradisiaca L. (Plantain) stem juice and its potential anticonvulsant effects in Pentylenetetrazole (PTZ)-challenged rats. While the authors have gathered a robust dataset, the paper has notable shortcomings in methodology, analysis, and clarity, necessitating careful attention and revisions. Below are specific remarks addressing the concerns:

1. Experimental group sample size: The use of only four rats per experimental group raises serious concerns. This small sample size diminishes statistical power, risking the detection of real effects. Additionally, it magnifies individual variations, potentially leading to unreliable results. A larger sample size is essential for a more accurate representation of the population. What was the rationale for such a small sample size? Did the authors employ a pre-statistical program to justify this sample size?
2. The authors should include the sex of the rodents used in the study, as it is not mentioned.
3. The authors should clarify the timing of PTZ administration, addressing the discrepancy between the methods and abstract. Specifically, whether PTZ was administered 45 minutes or 60 minutes after stem juice treatment.

The manuscript, despite its promise, requires revisions to address the highlighted concerns. These revisions are crucial for improving the overall quality and impact of the research. Overall, the study holds promise in the realm of natural products for medical treatments. Addressing the mentioned points will undoubtedly enhance the manuscript's rigor and contribute to its significance.

Thank you for the opportunity to review this manuscript.

Best regards,