

Review of: "Efficacy of Anogeissus leiocarpus as a Therapeutic Agent for Some Pathogenic Bacteria"

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Potential competing interests: No potential competing interests to declare.

Efficacy of Anogeissus leiocarpus as a Therapeutic Agent for Some Pathogenic Bacteria

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Fred Coolborn Akharaiyi, Adebayo Thomas Ajibola, Marris Osemwengie

Comments to the authors

I appreciate the explanation. I'll provide the writers with some constructive criticism along with some encouraging remarks in my comment. This thoughtful comment highlights the paper's advantages as well as possible areas for development:

Dear Authors,

I have read your paper regarding the effectiveness of Anogeissus leiocarpus against harmful germs. The study offers areas that could use more work in addition to its encouraging results. Kindly take into account the following remarks:

I- Minor comments:

1. Relevance: Your research addresses the important issue of finding new therapeutic agents against pathogenic bacteria, which is crucial given the rising concern of antibiotic resistance.
2. Focus on natural products: The exploration of A. leiocarpus as a potential source of antimicrobial compounds aligns with the growing interest in plant-based medicines and contributes to ethnopharmacological research.
3. Potential implications: Your findings suggest promising antimicrobial activity, which could lead to the development of new therapeutic options.

II- Major comments:

1. Methodology:

- The extraction method lacks detail. Specifying the solvent used and the plant part examined would enhance reproducibility.
- The rationale for selecting the particular bacterial strains tested is not clearly explained.

2. Controls:

- The study would benefit from including positive controls (standard antibiotics) to provide context for the efficacy of *A. leiocarpus* extract.

3. Quantitative analysis:

- The absence of Minimum Inhibitory Concentration (MIC) and Minimum Bactericidal Concentration (MBC) data limits the quantitative assessment of the extract's potency.

4. Mechanism of action:

- The paper does not explore potential mechanisms underlying the observed antimicrobial activity, which would significantly enhance its scientific contribution.

5. Statistical analysis:

- The statistical methods used to analyze the data are not clearly described, making it difficult to assess the significance of the results.

6. Discussion:

- The discussion of results could be more comprehensive, particularly in relating your findings to existing literature on *A. leiocarpus* and other plant-derived antimicrobials.

7. Future directions:

- The manuscript would benefit from a more detailed discussion of potential next steps, such as isolation and characterization of active compounds or in vivo studies.

In conclusion, while your study provides valuable preliminary data on the antimicrobial potential of *A. leiocarpus*, addressing these points could significantly strengthen the manuscript. The research has merit and, with further development, could make a more substantial contribution to the field of natural product antimicrobials.