

Review of: "Haematological and Biochemical Patterns in the Liver Function of a Syrup Made From Vitex Doniana Fruit"

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Potential competing interests: No potential competing interests to declare.

The article called: " Haematological and Biochemical Patterns in the Liver Function of a Syrup Made From Vitex Doniana Fruit " presents promising findings on the health benefits of Vitex doniana syrup, particularly its potential in maintaining liver health and enhancing antioxidant status. But it contains some weaknesses, and some suggestions could further strengthen the study's impact and clarity; these points are resumed in :

I) Abstract

1. Critique: The abstract is clear but could benefit from a more concise summary of the methods and results. The use of specific numerical data in the abstract is informative but might be overwhelming for some readers. The term "haematologic" could be standardized to "hematologic" for consistency with "biochemical."
2. Weakness Points: The abstract lacks detail on the control group's conditions and the exact method of syrup administration. The statistical significance of the results is not mentioned, which could lead to ambiguity about the findings' reliability.
3. Grammatical Corrections:

Change "syrup concentrations of 25-45 mg/kgbw" to "syrup concentrations ranging from 25 to 45 mg/kg body weight."

Change "haematology of the mice's blood" to "hematology of the mice's blood."

Change "Values of the catalase were" to "Catalase values ranged from."

Change "as it has the potential for blood maintenance" to "as it shows potential for blood maintenance."

II) Introduction

1. Critique: The introduction provides a comprehensive background but is slightly verbose. It could be more focused on the specific relevance of Vitex doniana to liver function.
2. Weakness Points: There is a lack of specific references to studies that directly link Vitex doniana to liver function. The introduction also does not clearly define the gap in the literature that this study aims to fill.
3. Grammatical Corrections:

Change "Using an animal model, this study aimed to investigate" to "This study aimed to investigate using an animal model."

Change "in managing health challenges in some parts of the world where" to "in managing health challenges in parts of the world where."

Change "the liver's significance in the health care of humans is of paramount importance" to "the liver's significance in human health care is paramount."

III) Methodology

1. Critique: The methodology is detailed but could be better structured to improve readability. It lacks clarity on the exact procedures for some biochemical assays.
2. Weakness Points: There is no mention of how randomization was achieved in assigning mice to groups. The method of administering the syrup (e.g., by gavage) is not explicitly stated. Additionally, the duration of the acclimatization period for the mice should be specified more clearly.
3. Grammatical Corrections:

Change "6 groups containing 5 rats each were designed" to "Six groups, each containing five rats, were designed."

Change "The liver's significance in the health care of humans is of paramount importance hence without it, many disorders such as lack in detoxification, protein synthesis, maintenance and regulation of homeostasis" to "The liver's significance in human health care is paramount; without it, many disorders such as impaired detoxification, protein synthesis, and regulation of homeostasis."

Change "The obtained results were expressed as mean \pm standard deviation (SD)" to "Results were expressed as mean \pm standard deviation (SD)."

IV) Results

1. Critique: The results section is thorough but could be more concise. It should focus on the most significant findings and their implications.
2. Weakness Points: The results lack a clear interpretation of the statistical significance of the data. It is unclear if the differences observed are statistically significant without p-values. The presentation of data in the tables could be improved for better clarity.
3. Grammatical Corrections:

Change "decrease in unit value was recorded in the biomarker enzymes" to "a decrease in values was recorded in the biomarker enzymes."

Change "Values having different superscript from a – c per column are significantly different" to "Values with different superscripts per column are significantly different."

V) Discussion

1. Critique: The discussion provides a good interpretation of the results but should link findings more explicitly to the existing literature. There is a need for a clearer explanation of how the results support or contradict previous studies.
2. Weakness Points: The discussion could be more focused on the specific implications of the findings for liver function. It lacks a detailed analysis of potential mechanisms by which Vitex doniana syrup could affect liver function.
3. Grammatical Corrections:

Change "the syrup has no health implications as it has the potential for blood maintenance, good antioxidant quality, and quality enzyme makers for healthy liver function" to "the syrup appears to have no adverse health implications and shows potential for maintaining blood health, providing antioxidant benefits, and supporting healthy liver function."

VI) Conclusion

1. Critique: The conclusion is clear but should briefly mention the study's limitations and suggest areas for future research.
2. Weakness Points: The conclusion does not acknowledge the study's limitations, such as the small sample size or the short duration of the study. It also does not suggest future research directions.
3. Grammatical Corrections:

Change "Vitex doniana fruit syrup as a health remedy" to "Vitex doniana Fruit Syrup as a Health Remedy."

Overall

Critique: The paper is informative and well-structured but could benefit from a more critical analysis of the results and their implications.

Weakness Points: There is a lack of discussion on the potential limitations of the study and how they might affect the results. The statistical analysis could be more robust, with a clearer presentation of p-values and confidence intervals. The study would benefit from a more detailed discussion on the potential mechanisms of action of Vitex doniana.

Grammatical Corrections:

Ensure consistent use of "hematologic" instead of "haematologic" throughout the text.

Standardize units of measurement, such as "mg/kg body weight" instead of "mg/kgbw."

By addressing these critiques, weaknesses, and grammatical corrections, the paper can be significantly improved in terms of clarity, readability, and scientific rigor.