

**Review Form 3**

Journal Name:	<b>Asian Journal of Research and Reports in Endocrinology</b>
Manuscript Number:	<b>Ms_AJRRE_123265</b>
Title of the Manuscript:	<b>EFFECT OF PERICARP OIL AND SEED OIL OF PERSEA AMERICANA ON THE PANCREAS OF ALLOXAN INDUCED DIABETIC MALE WISTAR RATS</b>
Type of the Article	<b>A Research Article</b>

## Review Form 3

### PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<p>I like this article, because this article are:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Relevance and Importance:</b> The study addresses a significant global health issue—diabetes mellitus—and explores the potential therapeutic effects of natural plant-based products, specifically from <i>Persea americana</i> (avocado), which is a relevant and promising area of research.</li> <li><input type="checkbox"/> <b>Clear Experimental Design:</b> The study uses a well-defined experimental design with control and multiple experimental groups, which helps in understanding the effects of different treatments on the diabetic rats.</li> <li><input type="checkbox"/> <b>Comprehensive Methodology:</b> The methodology is detailed, covering the preparation of plant materials, induction of diabetes, treatment regimens, and the methods of analysis, which provides clarity and allows for reproducibility.</li> <li><input type="checkbox"/> <b>Statistical Analysis:</b> The use of statistical tools like SPSS and the inclusion of mean ± standard deviation provides robustness to the findings, making the conclusions more reliable.</li> </ul>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>The title mentions both pericarp and seed oils, but the abstract focuses on the "aqueous seed extract" of <i>Persea americana</i>. This discrepancy may confuse readers. The title and abstract should consistently reflect the main focus of the study. Suggestion for the title is: "Antidiabetic and Pancreatic Protective Effects of Aqueous Seed Extract of <i>Persea americana</i> in Alloxan-Induced Diabetic Wistar Rats"</p>	
<p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p>	<p>The abstract contains some redundancy and grammatical errors. This should be revised for clarity and conciseness.</p> <p>Here is suggestion for revision for the abstract:</p> <p>The global rise in diabetes mellitus poses a significant challenge to primary healthcare, especially in developing countries. This study aimed to evaluate the effects of aqueous seed extract and pericarp oil of <i>Persea americana</i> on the pancreas of alloxan-induced diabetic male Wistar rats. Fifty-six adult male Wistar rats were divided into eight groups of seven rats each. Group A served as the control, receiving only food and water. Groups B to H were made diabetic by intraperitoneal injection of alloxan at 200 mg/kg body weight. Group B received no further treatment. Group C was treated with pericarp oil at 100 mg/kg body weight. Groups D and E received pericarp oil and seed extract, respectively, at 200 mg/kg body weight. Group F received both pericarp oil and seed extract, each at 200 mg/kg body weight. Group G received a combination of pericarp oil, seed extract, and the standard drug metformin. Group H received only metformin. Blood glucose levels and body weight were recorded at two and four weeks. Significant decreases in blood glucose levels (<math>P &lt; 0.05</math>) were observed in all treatment groups compared to Group B. Significant body weight increases were noted in Groups C, D, and E compared to Group B (<math>P &lt; 0.05</math>). These findings suggest that <i>Persea americana</i> extracts possess antidiabetic properties, possibly due to their phytochemical content, and may improve nutrient utilization, as evidenced by weight gain. The seed extract of <i>Persea americana</i> may offer therapeutic benefits in managing diabetes mellitus.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>Yes, it is good</p>	
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<p>The manuscript demonstrates scientific robustness and technical soundness by employing a well-established model of diabetes using alloxan-induced Wistar rats, a widely recognized approach for studying the effects of potential antidiabetic treatments. The experimental design includes appropriate control groups and multiple treatment groups, allowing for a comprehensive analysis of the effects of <i>Persea americana</i> extracts on blood glucose levels and pancreatic function. Furthermore, the study</p>	

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	<p>uses relevant biochemical assays and histological examinations to support its findings, indicating that the methods are appropriately aligned with the research objectives. The results are statistically analyzed, lending credibility to the conclusions drawn regarding the antidiabetic properties of the extracts.</p>	
<p><b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b></p>	<p>In the references, 'et al.' is still used, but it should be replaced with the full names of the authors of the cited references, so this needs thorough correction.</p>	
<p><u>Minor</u> REVISION comments</p> <p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>	<ul style="list-style-type: none"> <li>- The methodology section is detailed but contains several grammatical and typographical errors that make it difficult to follow in places. For example, "seeverl shifting" should be "several siftings," and "cconsciously marked" should be "consciously marked."</li> <li>- The description of the grouping of animals could be clearer. The same dose is mentioned for multiple groups (e.g., Group C and D), but it's unclear if this is intentional or a typo.</li> <li>- The phytochemical analysis section is mentioned briefly without sufficient detail. Given that this is a key part of the study, a more thorough explanation of the methods used to analyze phytochemicals would strengthen the paper.</li> <li>- The results section should provide more detailed quantitative data. For example, the specific blood glucose levels, weight measurements, and statistical significance should be clearly presented, possibly in a table or graph format.</li> <li>- The discussion of the findings is somewhat vague. While the paper suggests that the observed effects may be due to phytochemicals and mineral elements, it would benefit from a deeper analysis or comparison with existing literature.</li> <li>- There is a repetition of ideas and some unclear phrasing, such as "the following observations were taken, Increased level of glucose at the initiating stages causing hyperglycemia." The discussion would benefit from more concise and precise language.</li> <li>- The conclusion should be more explicit in summarizing the key findings and their implications. It currently lacks a strong statement on the potential therapeutic value of the oils.</li> </ul>	
<p><u>Optional/General</u> comments</p>	<p>The article presents valuable research on the potential anti-diabetic effects of *Persea americana* oils, contributing to the ongoing exploration of plant-based treatments for diabetes. However, the paper would benefit from a more focused and polished presentation, particularly in terms of language, clarity of the experimental design, and the depth of discussion. Addressing these issues would enhance the impact and readability of the study.</p> <p>The manuscript mentions that ethical approval was obtained from the Research Ethics Committee of the Faculty of Basic Medical Sciences, College of Medicine and Health Sciences, Nnamdi Azikiwe University. However, it would be beneficial to provide more details, such as the approval reference number, to ensure transparency.</p> <p>The manuscript does not explicitly mention any competing interests, which is an important aspect to address in scientific publications. A competing interest, or conflict of interest, arises when the authors have financial, personal, or professional ties that could potentially influence the results or interpretation of the study.</p> <p>To ensure transparency, the authors should include a statement in the manuscript indicating whether they have any competing interests. If the authors have received funding, materials, or support from any organization that might benefit from the results of the study, this should be disclosed. Even if there are no competing interests, it is still standard practice to include a statement to that effect.</p> <p>Including a clear and transparent competing interest statement will help maintain the credibility and integrity of the research.</p> <p>Its look good</p>	

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**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

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