ISSN(O): 2320-5407 | ISSN(P): 3107-4928

ISSN NO. 2320-5407

International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

www.journalijar.com

REVIEWER'S REPORT

Manuscript No.: IJAR-56062

Title: Efficacy of Triticum aestivum L. versus Placebo on Vascular Function in Mexican Adults with Obesity

Recommendation:

Accept as it is .....

✓ Accept after minor revision.....

Accept after major revision .....

Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity		✓		
Significance	✓			

Reviewer Name: Dr S. K. Nath **Date:** 05.02.26

Detailed Reviewer's Report

Strengths of the Study

- **Originality:** The study investigates the novel application of Triticum aestivum L. (wheatgrass) supplementation on vascular function in an adult population with obesity, a topic with limited prior research.
- **Relevance:** Vascular dysfunction is a crucial component of obesity-related cardiovascular risk. Exploring nutraceutical interventions offers potential for non-pharmacological management.
- **Methodology:** Utilization of a randomized, triple-blind, placebo-controlled trial design enhances validity and reduces bias.
- **Assessments:** The study employs validated and semi-automated vascular imaging techniques such as flow-mediated dilation (FMD) and brachial–ankle pulse wave velocity (baPWV), providing reliable measures of vascular function.
- **Data Quality:** Detailed baseline data and comprehensive follow-up measurements strengthen the robustness of the findings.
- **Contribution to the Field:** Provides preliminary evidence supporting the vascular benefits of wheatgrass supplementation, opening avenues for larger investigations.

Weaknesses of the Study

- **Small Sample Size:** Only 20 participants completed the study, limiting statistical power and generalizability.
- **Age Disparity:** Significant age difference between groups (mean age 46.1 vs 36.3 years) could confound results despite efforts to limit age-related vascular variation.
- **Short Follow-up Duration:** 120 days may be insufficient to observe significant structural vascular changes such as arterial stiffness, with most observed effects being functional.
- **Limited Power for Some Variables:** Certain outcomes (e.g., FMD) showed trends rather than significant differences, indicating the need for larger sample sizes.
- **Potential Biases:** Use of self-reported dietary intake and physical activity data, which may introduce recall bias.
- **Incomplete Blinding Details:** Although described as triple-blind, specifics of blinding procedures are not fully detailed.
- **Data Presentation:** Some tables and figures are not included or fully detailed (e.g., the exact data from Table 1), affecting clarity.

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

REVIEWER'S REPORT

- **References and Citations:** Some references are somewhat outdated or lack detail; more recent literature could enhance contextualization.

Reviewer Comments

- **Title and Abstract**: The title accurately reflects the study's scope but could specify that it is a pilot or preliminary study to manage expectations. The abstract is clear, succinct, and well-structured, though it should explicitly mention the pilot nature and small sample size to clarify the preliminary findings.
- **Introduction and Objectives**: The introduction provides a solid rationale. However, it would benefit from clearer statements of hypotheses and specific endpoints.
- **Methodology and Statistical Analysis**: The design is appropriate, and validated tools are used. Nonetheless, the small sample size and consequent limited statistical power are significant concerns. The statistical methods are generally sound, but details about the handling of missing data or potential confounders (e.g., age difference) are lacking. The study's primary endpoint, FMD, is well-chosen, but the borderline p-value ($p=0.06$) warrants cautious interpretation.
- **Results and Discussion**: Results are presented clearly, although some outcomes, particularly FMD, are only trending towards significance. The discussion appropriately contextualizes findings but should more explicitly acknowledge limitations regarding sample size and the age disparity.
- **Conclusion and Implications**: The conclusions are cautiously stated, emphasizing the preliminary nature and advocating for larger studies.
- **Ethical Clearance**: Ethical approval was obtained from the Local Research Ethics Committee (approval number R-2023-1301-177), and informed consent was secured, fulfilling ethical standards.
- **Language and Typographical Errors**: The manuscript is generally well-written; minor grammatical and punctuation issues are present and should be corrected.
- **Tables, Figures, Formatting, References**: The manuscript's figures and tables are minimally included; ensuring clear and complete inclusion will aid interpretation. Citation formatting is inconsistent; adhering to journal style is recommended. The reference list includes relevant citations but would benefit from updating with recent literature.

Additional Note: **Based on the content and referencing style of the provided manuscript, as well as a review of existing literature and online sources, there is no indication that this specific paper has been previously published on the internet. The manuscript appears to be an original work, although a formal plagiarism check or database search would be required for absolute confirmation.**