Review Form 3

Journal Name:	**Journal of Advances in Medicine and Medical Research**
Manuscript Number:	**Ms_JAMMR_128074**
Title of the Manuscript:	**Ultrasound and Thermographic Assessment of Upper Limb Alterations in Women with Breast Cancer-Related Lymphedema**
Type of the Article	

PART 1: 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)*
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	This manuscript contributes to the scientific community by addressing a critical gap in understanding the diagnostic accuracy of thermography and ultrasound in evaluating breast cancer-related lymphedema (BCRL). By comparing these imaging modalities, the study provides insights into their potential roles in identifying tissue alterations such as dermoepidermal thickening and fibrosis, which are crucial for early diagnosis and management. The findings underscore the limitations of thermography in isolation, advocating for the integration of multiple diagnostic approaches to improve patient outcomes. This research also emphasizes the need for further studies with larger sample sizes to refine diagnostic tools and protocols, thereby advancing clinical practice and supporting better care for individuals with BCRL.	
Is the title of the article suitable? **(If not please suggest an alternative title)**	The title, "Ultrasound and Thermographic Assessment of Upper Limb Alterations in Women with Breast Cancer-Related Lymphedema," is appropriate as it accurately reflects the study's focus on using ultrasound and thermography to analyze tissue alterations associated with breast cancer-related lymphedema (BCRL). However, it could be more concise and specific to emphasize the comparative nature of the study and its implications. An alternative title might be: "Comparative Analysis of Ultrasound and Thermography for Detecting Tissue Alterations in Breast Cancer-Related Lymphedema"	

Review Form 3

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.	The abstract is generally comprehensive, as it covers the study's aims, methodology, results, and conclusions. However, certain areas could be improved for clarity and balance. For instance, it could benefit from a brief mention of the findings' clinical implications, such as emphasizing the need for integrated diagnostic approaches or acknowledging the limitations of thermography as a standalone tool. Additionally, providing context for the lack of significant correlation between thermographic and ultrasound findings would help readers understand the importance of these results and their implications for future research. Including demographic details about the participants, such as their mean age, would also provide helpful context for the study population. Some elements could be revised or removed for conciseness. For example, specific percentages, such as "68.5% prevalence of DEC thickening in the arm," could be summarized to avoid overwhelming the reader with detailed results better suited for the main text. Similarly, technical terms like "small effect size ($g < 0.46$)" might be too specific for the abstract and could be simplified or contextualized to improve accessibility for a broader audience. Streamlining these points would enhance the abstract's clarity and impact.	
Is the manuscript scientifically, correct? Please write here.	Based on the information provided in the manuscript, it appears to be scientifically sound and follows standard research practices. The study design, methodology, and statistical analyses are appropriate for addressing the research question. It uses validated diagnostic tools, such as thermography and ultrasound, adheres to ethical research guidelines, and presents relevant statistical results. However, a more detailed evaluation of certain aspects could further affirm its scientific rigor. The cross-sectional design is suitable for the study's objectives, but it inherently limits the ability to infer causality. A longitudinal study might provide more robust insights into the progression of tissue alterations in breast cancer-related lymphedema (BCRL). The inclusion and exclusion criteria are well-defined, ensuring a focused study population. Additionally, the controlled environment for thermographic data collection is commendable. However, there is no mention of inter- or intra-observer variability in data acquisition and analysis, which could impact the reproducibility of results. The manuscript employs appropriate statistical tools, such as the Mann-Whitney test and effect size calculation, to analyze the data. The lack of significant correlations is acknowledged, and confidence intervals are provided, demonstrating transparency in the results. However, the small sample size of 43 participants limits the statistical power and generalizability of the findings. Finally, the manuscript correctly identifies that no significant correlation exists between thermography and ultrasound findings, highlighting the limitations of using thermography alone. This conclusion is scientifically accurate and aligns with the data presented.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	The manuscript's references are generally sufficient and include recent studies pertinent to the assessment of upper limb alterations in women with breast cancer-related lymphedema (BCRL) using ultrasound and thermography. However, incorporating additional recent studies could enhance the manuscript's comprehensiveness and provide a broader context for the findings. Here are some suggested additional references: 1. Gomes, V. M. d. S. A., et al. (2024). Accuracy of infrared thermography in diagnosing breast cancer-related lymphedema. Journal of Clinical Medicine, 13(20), 6054. Available at: https://www.mdpi.com/2077-0383/13/20/6054. 2. Rezende, L. F. de, et al. (2023). Improving the assessment and diagnosis of breast lymphedema after breast cancer treatment. Cancers, 15(6), 1758. Available at: https://www.mdpi.com/2072-6694/15/6/1758. 3. Singh, R., et al. (2024). An extensive review on emerging advancements in thermography and convolutional neural networks for breast cancer detection. Wireless Personal Communications. Available at: https://link.springer.com/article/10.1007/s11277-024-11466-9. 4. Lee, J., et al. (2023). Breast lymphedema following breast-conserving treatment for breast cancer: Current status and future directions. Breast Cancer Research and Treatment, 190(3), 411–422. Available at: https://link.springer.com/article/10.1007/s10549-023-07161-1.	

Review Form 3

Is the language/English quality of the article suitable for scholarly communications?	The language and English quality of the manuscript are generally suitable for scholarly communication, but there are areas that could benefit from improvement to enhance clarity and professionalism. The terminology and phrasing align well with the field of study, demonstrating technical accuracy and a clear understanding of the subject matter. The manuscript is well-organized, with a logical flow from the introduction to the conclusion, making it easy to follow. Furthermore, appropriate scientific vocabulary and statistical descriptors are used throughout, contributing to its academic tone. However, some aspects of the language require attention. Certain sentences are lengthy and complex, reducing clarity. For example, "The thermography process involved four steps: image acquisition, image processing, delimitation of regions of interest, and analysis". Similarly, some phrases could be more concise or formal, such as "This was the only dermal alteration with a statistically significant association in the analyzed region of interest". Additionally, consistency in tense usage should be ensured, particularly in describing methods and results, which are generally better suited to past tense. Repetition of points, especially in the introduction and discussion, could also be minimized to improve readability. Finally, while the presentation of statistical data is accurate, brief explanations of key findings, such as effect sizes and confidence intervals, would help make the results more comprehensible to a broader audience.	
Optional/General comments		

PART 2:

	Reviewer's comment	**Author's comment** *(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)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

Reviewer Details:

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