



REVIEWER'S REPORT

Manuscript No.: IJAR-50735

Date: 22-03-2025

Title: ADVANCES IN THE USE OF MICROFOCUSED ULTRASOUND FOR FACIAL REJUVENATION

Recommendation:

- Accept as it is.....**YES**.....
- Accept after minor revision.....
- Accept after major revision
- Do not accept (*Reasons below*)

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

Reviewer's Name: Dr Aamina

Reviewer's Decision about Paper: **Recommended for Publication.**

Comments (*Use additional pages, if required*)

Reviewer's Comment / Report

Abstract Review:

The abstract provides a comprehensive summary of the study, effectively outlining the significance of micro-focused ultrasound (MFU) as a non-invasive facial rejuvenation technology. It clearly presents the background, methodology, and key findings, highlighting improvements in tissue support, particularly in critical facial areas. The discussion on SMAS contraction and collagen synthesis is well-articulated and aligns with the study's objectives. The conclusion effectively reinforces the study's primary findings and clinical relevance.

Keywords Review:

The selected keywords—rejuvenation, ultrasound, skin regeneration, and dermal matrix—are appropriate and relevant to the study's scope, ensuring accurate indexing and searchability.

Introduction Review:

The introduction is well-structured and provides a strong foundation for the study. It clearly describes the multifactorial nature of skin aging, emphasizing intrinsic and extrinsic factors contributing to dermal matrix degradation. The discussion on collagen loss and skin laxity is well-supported by references. Furthermore, the increasing demand for non-invasive rejuvenation techniques is adequately introduced,

REVIEWER'S REPORT

setting the stage for the significance of micro-focused ultrasound. The technological advancements and precision of MFU are well-explained, providing a strong rationale for the study.

Methodological Review:

The methodology is clearly outlined, detailing the mechanism of ultrasound emission, the focal precision achieved through metallic structural engineering, and the depth-dependent treatment approach. The explanation of spacers calibrated at different depths demonstrates a thorough understanding of the technology. The discussion on thermal damage as a biological effect is well-integrated, effectively linking it to post-treatment healing and collagen synthesis. The methodology is coherent and provides a clear framework for the study's execution.

Scientific Rationale and Clinical Relevance:

The study successfully establishes the clinical importance of micro-focused ultrasound in non-invasive facial rejuvenation. The discussion of its targeted effects on different skin layers and its role in dermal remodeling aligns with current advancements in aesthetic dermatology. The inclusion of SMAS contraction and collagen synthesis as primary outcomes further strengthens the study's clinical significance.

Findings and Interpretation:

The findings indicate substantial improvements in tissue support and skin laxity, particularly in the subocular region, temples, and nasolabial fold. These observations are well-articulated, supporting the effectiveness of micro-focused ultrasound. The healing process and collagen synthesis mechanisms are logically linked to the observed rejuvenation effects, reinforcing the study's conclusions.

Conclusion Review:

The conclusion succinctly encapsulates the key findings, emphasizing the efficacy and safety of micro-focused ultrasound for facial rejuvenation. The final remarks appropriately highlight the role of this technology in enhancing tissue support and restoring the dermal matrix. The conclusion is well-aligned with the study's objectives and findings.

Overall Assessment:

The manuscript is well-structured, scientifically sound, and provides a thorough analysis of micro-focused ultrasound for facial rejuvenation. The study effectively presents its objectives, methodology, findings, and clinical relevance. The integration of technological and biological aspects enhances its credibility and applicability in aesthetic dermatology.

Recommendation:

The study is well-executed and presents valuable insights into micro-focused ultrasound for facial rejuvenation. It contributes significantly to the field and aligns with current advancements in non-invasive aesthetic procedures.