

Review Form 3

Journal Name:	Archives of Current Research International
Manuscript Number:	Ms_ACRI_126592
Title of the Manuscript:	MACROSCOPIC WOUND HEALING IN THE LIMBS OF DIABETIC RATS TREATED WITH AUTOLOGOUS MESENCHYMAL STEM CELL MICROGRAFTS
Type of the Article	Minireview Article

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<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>This manuscript is significant for the scientific community as it contributes to our understanding of wound healing mechanisms, particularly for diabetic patients who struggle with non-healing wounds. The study highlights the potential of autologous mesenchymal stem cell (MSC) micrografts in accelerating tissue regeneration, a finding that could improve treatment outcomes and reduce healthcare costs associated with chronic wounds. Additionally, the use of the Rigenera® system for generating MSC micrografts offers a novel, minimally invasive approach that avoids the ethical concerns associated with other stem cell therapies. This innovative method not only enhances our understanding of MSCs but also presents a promising alternative for clinical applications. I appreciate this manuscript for its well-rounded exploration of a relevant clinical issue and its potential to inspire further research in regenerative medicine.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>"Autologous Mesenchymal Stem Cell Micrografts Promote Effective Wound Healing in Diabetic Rat Limbs"</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 is generally well-structured and covers the essential components of the study, but a few additions would improve its clarity and completeness. It would benefit from a brief introductory sentence on the clinical significance of addressing non-healing wounds in diabetic patients. Additionally, a short description of the Rigenera® technology, including its advantage in creating MSC micrografts for immediate application, would add helpful context. Highlighting specific findings, such as the faster tissue repositioning and improved inflammation outcomes in treated diabetic rats, could make the results section more impactful. Finally, adding a concluding sentence on the potential of this approach in clinical settings would underscore the study's broader relevance. These enhancements would make the abstract more informative and appealing to readers interested in regenerative wound care solutions.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>The manuscript's subsections and structure appear largely appropriate for a scientific study focused on wound healing with mesenchymal stem cell (MSC) micrografts. Key sections such as Introduction, Methodology, Results and Discussion, and Conclusion provide a clear framework, guiding readers through the study's purpose, procedures, findings, and implications. However, a few structural adjustments could improve flow and readability:</p> <ol style="list-style-type: none"> 1. Separate Results and Discussion: Splitting the Results and Discussion sections might provide clearer delineation between observed outcomes and their interpretation or relevance. This separation allows readers to easily distinguish findings from the analysis. 2. Add a Materials Subsection: Under Methodology, it might be helpful to include a brief "Materials" subsection, listing critical reagents, technologies (like the Rigenera® system), and other specifics, ensuring reproducibility. 3. Study Limitations: Including a "Study Limitations" subsection before the Conclusion could enhance transparency by addressing any constraints or areas for further research. 4. Visual Data Representation: Consider adding a "Figures and Tables" subsection if it's not already included, as visual aids can strengthen comprehension of complex data. 	
<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>This manuscript appears scientifically robust and technically sound, as it applies established methodologies, such as using the Rigenera® system to generate MSC micrografts, in a controlled animal model relevant to diabetic wound healing. The study follows a clear experimental design, dividing animals into appropriate control and treatment groups, which strengthens the reliability of the observed effects of MSCs on tissue regeneration. Additionally, the analysis of macroscopic parameters</p>	

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	such as granulation, epithelialization, and inflammation offers a comprehensive evaluation of wound healing progress, supporting the study's conclusions with measurable outcomes. By adhering to ethical standards for animal research and employing reproducible techniques, the study maintains scientific integrity, providing valuable insights into MSC-based regenerative therapy.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	The references in this manuscript are largely sufficient and include a mix of recent and foundational sources relevant to diabetes, wound healing, and mesenchymal stem cell (MSC) therapy.	
<u>Minor</u> REVISION comments		
Is the language/English quality of the article suitable for scholarly communications?	YES	
<u>Optional/General</u> comments	NONE	

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?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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