OPEN PEER REVIEW

Open Peer Review (OPR)

As a new feature for progressing towards transparency, we decided to open a new window for all of our editors as well as authors titled "**Open Peer Review**". We hope by this new facility, our reviewers will be more motivated and authors will be more satisfied with the review process. We believe that publishing our peer review reports could make a transparent and clear environment for all our efforts within a journal, but not all reviewers tend to publish their comments.

What is "Open Peer Review" process?

An "Open Peer Review" process is making the details of all review process (including reviewers, associate editors, and EICs comments) as "Public" as it is agreed by EIC, Authors, and reviewers.

Advantages of "Open Peer Review" process

- More transparency, constructiveness and tactful comments of the peer review process: leads to an increase in the quality of reviews
- More motivations for all involved roles in the review process
- Authors' satisfactions from the review process: Increases honesty between authors and reviewers
- Education of both authors and new students
- Prevents reviewers from following their individual agendas and leading to the detection of reviewers' conflicts of interests

You can find out more at:
https://brieflands.com/briefland/knowledgebase/category/tree.html#opr.html

Archives of Neuroscience
Article DOI: 10.5812/ans.118387
Published in: Archives of Neuroscience: 9(1); e118387

Peer Review Report for "Effect of Magnetohydrodynamic on Cutaneous Wound Healing in Rat Model"

Author(s): Mohammad Reza Safari, Mani Karimkhan-Zand, Nahid Fakhraei, Fatemeh Mohammadi, Fatemeh Nili, Faranak Eivazi, Abbas Norouzi Javidan, Akbar Khodaei, Ahmad Reza Dehpour

Review Timeline:

Submit Date: 13 Aug 2021
Revised Date: 18 Jan 2022
Accepted Date: 30 Jan 2022

Revision (0)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | Revision (0)

14 Dec 2021

Dear AE,
In this study authors compared effect of DC,MDC and MF currents on wound healing, however sever concerns arise for their results that are as follows:
- In the background author should address why DC current is preffered versus AC. What is the difference between chosen currents in the contex of previous studies which encourage authors to exame these currents?
- How long after wound injuey currents applied to the site?
- How 600 microamper did select?
Line 144" DC was considerably different in comparison to control" what does it t mean in a scientific manner?
- Line 148" healing in the first half" First half of what?
- Sever English editing required.
- How did the author distinguish inflammation, angiogenesis, and fibroplasia just with one staining? complementory and specific staining for each required.

- How did granulation detect?

Based on one non-specific staining authors could not get a conclusive results.

Thanks.

REFEREE: Associate Editor | **Revision** (0)

18 Dec 2021

Dear EIC,

The manuscript is studied, and there are some comments which should be addressed by the author. According to the comments, the document needs major revision.

Kind regards,

REFEREE: EIC | **Revision** (0)

18 Dec 2021

Dear Author,

The reviewers' comments are mentioned. Please correct the details as mentioned above carefully according to reviewers' request.

Thanks.

OPEN PEER REVIEW

Revision (1)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Dear Prof. Ahmad Reza Dehpour,

Thank you for submitting your valuable manuscript to our journal. We would like to inform you that the peer review process of your manuscript is complete and requires "**Major Revision**". Although it has several useful points, it needs **Major Revision** to be reviewed again. Below you can find the abstracts of the peer review decision made by our editorial board members.

Reviewers' Comments:

Reviewer 1:

In this study, authors compared effect of DC,MDC and MF currents on wound healing, however, several concerns arise for their results that are as follows:
- In the background, author should address why DC current is preferred versus AC. What is the difference between chosen currents in the context of previous studies which encourage authors to exam these currents?

Answer: To have a more efficient magnetic hydrodynamic effect in the wound area, we needed to utilize a strong DC current that provides us a homogeneous circular rotation (while an AC current generates a sequence of the clockwise and anti-clockwise rotations with respect to the applied AC current frequency). On the other hand, to perform a non-destructive healing procedure, we are restricted to the utilized current intensity.

- How long after wound injury currents applied to the site?

Answer: This study had a 14-day period, however, for achieving hemostasis, the wounds were covered with a sterile gaze for the first 24 hrs. After that, the rats were anesthetized daily and the animals received a 20-min treatment for twelve consecutive days.

- How did 600 microamper select?

Answer: 600 microamper DC has determined to be the maximum current which can be employ in the body without any damages to the skin tissue. In fact, it is considered the non-destructive limit range. These stimulation parameters were used in a previous study and found to provide a comfortable treatment that is well tolerated by animals. Accordingly, the related references were added to the method section of the article (Talebi et al, 2008; Asadi et al, 2011; Wood et al, 1993).

Line 144" DC was considerably different in comparison to control" what does it mean in scientific manner?

Answer: DC was considerably different in comparison to the control group and had higher rate of the wound closing.

- Line 148" healing in the first half" First half of what?

Answer: *Healing in the first half (day 7) of the 14-day study period.*

-Several English editing required.

Answer: The English language of the manuscript was improved concededly by an language expert.

-How did author distinguish inflammation, angiogenesis and fibroplasia just with one staining? complementary and specific staining for each required.
- How did granulation detect?
Based on one non-specific staining authors could not get a conclusive results.

- **Answer:** As it was shown in Figure 4, identification of inflammatory cells and estimation of the severity are obvious in routine hematoxylin and eosin (H & E) stains (black arrows). Ancillary stains are not required for this variable.
- For evaluation of angiogenesis, immunohistochemical staining (IHC) for CD34 is helpful for more accurate scoring, but it can be identified on H & E and Masson's trichrome as well (the black circles). Unfortunately, we were not able to perform this staining due to our financial limitations.
- Fibroplasia was also assessed by Masson's trichrome stain in our study (the star area).
- Granulation tissue is an edematous connective tissue composed of inflammatory cells and neoformed vessels which is easily diagnosed on H & E stain. The thickness of granulation tissue from the surface epithelium to the deepest area in dermis was measured under the microscope. Accordingly, for a better understanding of the evaluated factors Figure 3 was added to the article.

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Revision (1)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | **Revision** (1) — 30 Jan 2022

Dear AE,
Answers to the questions should be included in the text of the manuscript.
Thanks.

REFEREE: Associate Editor | **Revision** (1) — 30 Jan 2022

Dear EIC
Based on the authors' answers to the reviewers' comments, the reviewer(s) have recommended publication.
Kind regards.

REFEREE: EIC | **Revision** (1) — 30 Jan 2022

Dear Author,
The document is reviewed carefully by the reviewers. According to their comments and your revisions as requested, this manuscript is accepted.
Thanks.