Author’s response to reviews

Title: Topical hydrogel containing Fumaria vaillantii Loisel. extract enhances wound healing in rats

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Author’s response to reviews:

Dear Editor;

Thank you very much for your E-mail on our manuscript entitled: “Topical hydrogel containing Fumaria vaillantii Loisel. extract enhances wound healing in rats”. We are also thankful to the respectful reviewers for their helpful comments to improve the manuscript. We performed all the modifications, which were requested by the reviewers and highlighted in yellow color. However, we are available for further questions

Regards,

Mona Salimi

Editor comments:

Q1. Please review your manuscript extensively before submission especially for methods and statistical analysis.

R1. Whole manuscript was revised again.
Q2. Provide HPLC chromatograms as supplementary file.

R2. HPLC chromatogram was added as supplementary Fig.1.

Q3. Please also send a pointwise reply of reviewers queries, and incorporate suggestions in your revised manuscript.

R3. It was done carefully as following:

Roghayeh Abbasalipourkabir (Reviewer 3):

Q1. The manuscript was reviewed. The authors have modified the requirements. In the Table 1, four experimental groups are shown (Normal skin as forth group), whereas neither in Methods nor in the Figures it is mentioned.

R1. Normal skin was considered as a control group only in our incision model. Hence, we did not use it in the figures associated with the excision model. The findings related to the incision model were illustrated in Table 1, alone. However, based on the reviewer’s comment, we added this group as normal skin in the method section, which was highlighted in the manuscript.

Sajjad Ahmad, Ph.D (Reviewer 4):

Q1. Rectify the English language and grammatical mistakes along with the typographical mistakes.

R1: The manuscript was revised by a fluent English speaker.

Q2. Write the designation of Dr. G Amin.

R2. Dr. Gholamreza Amin is a botanist and pharmacognosist of Tehran University of Medical Sciences, who authenticated F. vaillantii.

Q3. What grade of ethanol was used for maceration.

R3: We used ethanol gradient grade for liquid chromatography (Merck, Cat. No:111727)
Q4. The digits along with their units should be written as per the guidelines of international journals.

R4. Units were checked again and corrected accordingly.

Q5. Bibliography should be rectified.

R5. It was done.

Q6. Provide the HPLC Chromatogram.

R6. HPLC chromatogram was added as supplementary Fig.1.

Dr. Zaridatul Aini, PhD in Medicine (Reviewer 5):

This manuscript is assessing the effect of a plant from Fumaria species (Fumariacea) which had been traditionally used in wound healing in Iranian folk medicine. Some of the sentences were highlighted in green, which could be the response to the previous comments by other reviewers.

There are several issues with the results/figures that I would like to point out:

Q1. For Figure 2, Photographs of macroscopic observation of excision wound on days 6, 10, 14, 21. Why are the photos for day 0 were not included? It would be helpful to have those for making comparisons.

R1. Since no difference in wound area was observed between the groups at day 0 and also that we subtracted the specific wound size from the initial wound size (day 0) in the formula, we did not insert the photos for day 0. However, based on the reviewer’s comment we added the photos of day 0 to Figure 2.

Q2. For Figure 3c, it looks like there was no different between F. vaillantii and the negative control. What is the statistical analysis for this data and what is the p-value?

R2. We used ANOVA following Tukey post test for statistical analysis. p<0.05 was considered significant. We think that due to the large scale bar, the significant difference was not clearly obvious. So, we changed the scale bar to clarify the difference. Furthermore, the calculated percentages of wound contraction are as follows:
Negative control: 86.26±3.2
Gel base: 90.87±1.6
F. vaillantii: 96.56±0.46

Q3. For Figure 4, the scale bar was not included in the pictures.

R3. Scale bars were included in the photos.

Q4. The findings can be further validated by performing wound healing assay in vitro to further understand the basic cellular and molecular mechanism of this gel.

R4. Thanks for this good idea. We are planning to do it in our laboratory.