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OPEN PEER REVIEW

The Beneficial Effects of *Scrophularia atropatana* Methanolic Extract on Myocardial Infarction in Rats

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About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

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1 Original submission

2 comments · 16 Feb 2023 – 8 Apr 2023

Hooman Bakhshandeh Reviewer

MINOR REVISION 16 Feb 2023

Dear Authors
I read your manuscript entitled
The Beneficial Effects of Scrophularia atropatana Methanolic Extract on Myocardial Infarction in Rats
I found the title interesting and the article well prepared. Here are my comments for improving the quality of your paper:
- It is more useful to present the results using suitable graphs.
- Please discuss the possible clinical applications of your findings.
- Indeed, this animal experiment was not sufficient to definitively prove the effect of Scrophularia atropatana. It is better to revise the conclusion in a more suggestive style.
Best Regards

Editor-in-Chief

MAJOR REVISION 8 Apr 2023

Dear Authors,
The reviewers suggest a few changes that seem significant. The main problem with your article is the missing ethics code. Please provide the code with the revised manuscript. We will not publish an article involving animals or humans without the ethics code.

Kind Regards,
JJNPP EIC

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Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

April 16th, 2023

The editorial office

Jundishapur Journal of Natural Pharmaceutical Products

Dear Prof. Ramezani

RE: Manuscript No. 134493

It is my pleasure that our manuscript entitled *The Beneficial Effects of Scrophularia atropatana Methanolic Extract on Myocardial Infarction in Rats* has been accepted for review in *Jundishapur Journal of Natural Pharmaceutical Products*. We have made the requested changes and modified our manuscript accordingly. Also, the ethical code of the study was mentioned and highlighted in the manuscript (part 2.1) and you can observe the uploaded ethical approval letter.

Sincerely yours

P.A.

Reviewer 1:

- It is more useful to present the results via the suitable graphs.

Thanks for your suggestion. The appearance of the figures and tables were revised for better understanding.

- Please discuss about the possible clinical applications of your findings.

The possible clinical applications were added to the conclusion part:

S. atropatana improves the cardiac hemodynamic and histopathologic status and can be suggested as beneficial complementary medication for patients facing ischemia-reperfusion post MI, acute cardiac dysrhythmias or coronary artery interventions. Future studies will pave the way to understanding the exact mechanism of *S. atropatana's* cardioprotection.

- This animal experiment was not competent enough to prove definitely the effect of Scrophularia atropatana, indeed. It is better to revise the conclusion with a more suggestive style.

The conclusion part has been revised in manuscript and abstract part as you suggested.

Abstract Conclusion:

The improving effects of *S. atropatana* on MI injuries, suggests it as a complementary medication.

Manuscript conclusion:

S. atropatana improves the cardiac hemodynamic and histopathologic status and can be suggested as beneficial complementary medication for patients facing ischemia-reperfusion post MI, acute cardiac dysrhythmias or coronary artery interventions. Future studies will pave the way to understanding the exact mechanism of *S. atropatana's* cardioprotection.

Reviewer 2:

1. The total number of rats should be rechecked. If there were 6 rats in each group, then the total number of rats was 36.

Thanks for your comment. The number of the rats was corrected.

36 male Wistar rats weighing 280-300 g were obtained from the animal house of the Faculty of Pharmacy, Tabriz University of Medical Sciences (TBZMED).

2. The type and volume of Scrophularia atropatana Methanolic Extract solvent should be mentioned in the manuscript.

The requested information was added to the manuscript.

Air-dried parts of *S. atropatana* were extracted with 200 ml methanol and separately concentrated using a rotary evaporator at a maximum temperature of 45°C and finally 1g extract was obtained.

3. The quality of figures should be increased

The requested changes have been made.

2 Revision 1

0 comments

No public comments in this round.

3

Revision 2

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Reviewer 1:

- It is more useful to present the results via the suitable graphs.

Thanks for your suggestion. The appearance of the figures and tables were revised for better understanding.

- Please discuss about the possible clinical applications of your findings.

The possible clinical applications were added to the conclusion part:

Page 9, lines 192-195: *S. atropatana* improves the cardiac hemodynamic and histopathologic status and can be suggested as beneficial complementary medication for patients facing ischemia-reperfusion post MI, acute cardiac dysrhythmias, or coronary artery interventions. Future studies will pave the way to understanding the exact mechanism of *S. atropatana's* cardioprotection.

- This animal experiment was not competent enough to prove definitely the effect of Scrophularia atropatana, indeed. It is better to revise the conclusion with a more suggestive style.

The conclusion part has been revised in manuscript and abstract part as you suggested.

Page 1, lines 20-21: The improving effects of *S. atropatana* on MI injuries, suggests it as a complementary medication.

Page 9, lines 192-195: *S. atropatana* improves the cardiac hemodynamic and histopathologic status and can be suggested as beneficial complementary medication for patients facing ischemia-reperfusion post MI, acute cardiac dysrhythmias or coronary artery interventions. Future studies will pave the way to understanding the exact mechanism of *S. atropatana's* cardioprotection.

Reviewer 2:

1. The total number of rats should be rechecked. If there were 6 rats in each group, then the total number of rats was 36.

Thanks for your comment. The number of rats was corrected.

Page 3, line 47: 36 male Wistar rats weighing 280-300 g were obtained from the animal house of the Faculty of Pharmacy, Tabriz University of Medical Sciences (TBZMED).

2. The type and volume of Scrophularia atropatana Methanolic Extract solvent should be mentioned in the manuscript.

The requested information was added to the manuscript.

Page 3, lines 57-58: Air-dried parts of *S. atropatana* were extracted with 200 ml methanol and separately concentrated using a rotary evaporator at a maximum temperature of 45°C and finally 1g extract was obtained.

3. The quality of figures should be increased

The requested changes have been made.

3 Revision 2

0 comments

No public comments in this round.