Author’s response to reviews

Title: Phytochemical, In-Vitro Biological and Chemo-preventive Profiling of Arisaema jacquemontii Blume Tuber Extracts

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Author’s response to reviews:

Respected Editor in Chief
BMC Complementary and Alternative Medicine

I am re-submitting the revised version of our manuscript " Phytochemical, In-Vitro Biological and Chemo-preventive Profiling of Arisaema jacquemontii Blume Tuber Extracts " (BCAM-D-19-00376) authored by Saira Tabassum, Muhammad Zia; Esperanza J. Carcahe de Blanco; Riffat Batool; Roohi Aslam; Sajid Hussain Qamar Wali and Muhammad Mudassar Gulsar for publication in BMC Complementary and Alternative Medicine.

We are thankful to the Editor in Chief for providing us opportunity to revise the manuscript and to the reviewers for approving the manuscript for publication. We are again grateful to the Editor in Chief, Editor and reviewers for their precious time and valuable suggestions throughout the process. The Response of each Comment is given below. It is submitted that whole manuscript has been revised following the suggestions of Editor and reviewers comments therefore the changes are not highlighted. We hope that now the manuscript will meet the requirement for publication in BMC Complementary and Alternative Medicine.
Response to Comments:
Editorial Comments:

Comment
1. Background in the abstract is incomplete, rephrase it and complete the sentence.
Response
As suggested by the Editor, the background in abstract has been revised

Comment
2. Methods is incomplete, kindly provide some details about the methods used.
Response
It is stated that the assays performed in the work are mentioned in the abstract section

Comment
3. Results, first sentence is too lengthy, rephrase it.
Response
As guided by the editor, the first sentence has been revised

Comment
4. It will be better to use some relevant abbreviations for the samples used i.e Aj.Cme for crude methanolic extract of the plant.
Response
It is submitted that we used one plant species so it does not looks appropriate to write plant abbreviation, however we have abbreviated solvent. We hope now it will be more clear and understandable

Comment
5. Numerous typo mistakes were found, kindly check the manuscript for language corrections via an expert.
Response
It is submitted that the English language of the manuscript has been revised and all typographic and grammatical mistakes have been corrected

Comment
6. Abstract line 55,56 the sentence "The LC50 value of each solvent extract against brine shrimp mortality and antileishmanial potential". rephrase it and remove term mortality .
Response
As directed by the editor, the sentence has been modified and term mortality has been removed

Comment
7. Conclusion is inappropriate. Draw a solid conclusion of the study results.
Response
As suggested by the Editor, Conclusion section in the abstract has been revised
8. Sentences in the background are not appropriate for scientific publishing, kindly revise it carefully. Moreover, present the introduction stuff in accordance with your current experimental work. For instance; antibiotic resistance and need of more effective drugs from nature. Antileishmanial drugs, cancer etc and establish a need for the current study in your background. These articles might be useful for establishing significance of the medicinal plants in drug discovery related to the work you done. Read and cite them. (https://www.mdpi.com/2227-9717/7/4/208, https://www.sciencedirect.com/science/article/pii/S0039128X18302034, https://www.ncbi.nlm.nih.gov/pubmed/29430965.

Response

As directed by the Editor, the background has been revised and few recent references have been incorporated.

Comment

9. Rephrase the aim of the study at the end of background.

Response

It is stated that last paragraph of background reporting aims and objectives of the study has been rephrased.

Comment

10. Add complete source (CAT) of the chemicals used.

Response

It is stated that standard and specific chemicals has been marked with CAT number. However the other, common, chemicals in normal use in lab are purchased from Sigma or Merck.

Comment

11. Line 19, space between Artemisia and Salina is required

Response

The typographic mistake has been corrected.

Comment

12. Mention source and identifier of Leishmania strain

Response

It is stated that the Leishmania strain was collected from other lab and their protocol was followed. The said information has been included.

Comment

13. Likewise, source, identification and susceptibility to standard drugs is required for bacterial and fungal strains

Response

The sources of bacterial and fungal strains has been marked in the relevant sections.

Comment

14. line 23, page 12, it must be reducing potential not reduction

Response

The typographic mistake has been corrected.

Comment

15. There is no need for mentioning order of activity like A>B>C etc. just pick highly significant results and present them in scientific way removed

Response

As directed by the Editor, The order of activity has been removed throughout the manuscript.

Comment

16. Replace the term "Activity" by studies in the experimental titles, its more scientific Response

The said change has been made.

Comment

17. Compare you results with already publish literature in the discussion and come up with useful
conclusions
Response
It is submitted that discussion section has been thoroughly revised
Comment
18. Revise conclusion, its not complete spectrum of phytochemistry in the form of HPLC etc. Just conclude your own work. Page17,line 55, remove the term remarkable and check for such terms throughout the text. Overall major changes are required before further decision. Revised
Response
As directed by the Editor the conclusions have been redrawn following the instructions

Reviewers Comments:
Reviewer 1
We are thankful to the reviewers to review the manuscript and valuable Comments and positive feedback and finally approving the manuscript for publication in its present form.
Comment
1. The authors have clearly indicated that the methanolic and ethanolic extract of A. jaquemontii tuber have high antioxidant potential and radical scavenging activity against various antioxidant systems in-vitro models. Did the authors have checked its antioxidant and radical scavenging potential in the in-vivo study? Will they be able to use the phytochemicals of this plant for clinical trials on some model organisms?
Response
We are thankful to the reviewer for valuable suggestion. It is stated that this was the preliminary work. Based on the significant activities, isolation of active compound through activity guided isolation, the work is under progress
Comment
2. Plant phytochemistry is missing. Can the authors provide a preliminary HPLC or GC-MS.
Response
As stated in previous response, the aim of this project is to isolate active component from this plant specie. Therefore we did not carryon HPLC or GCMS analysis. The work is under progress and the manuscript will be submitted as the work complete.
Comment
3. In the abstract, rephrase the first sentence, expand methods section and add details. Don't use vogue terms. Rephrase results in more scientific way. Conclusion is absolutely inappropriate. Revise it!
Response
As suggested by the reviewer, all the sections of abstract have been redesigned
Comment
4. In the introduction section, add a paragraph on the emergence of antibiotic resistance and need for the development of alternative agents from plants. Kindly refer to these articles and cite them
1). https://europepmc.org/abstract/med/27814643,
Response
It is submitted that the background/introduction has been rewritten along with incorporation of said references
Comment
5. The authors have shown some antimicrobial activities of A. jaquemontii in Table 2 and 3. They have to provide some clear photos of the strains grown on media plates showing inhibition zones.
Response
We agreed with the reviewer comment. Few pictures have been provided as directed.

Comment 6. Add complete source of chemicals used in the study with CAT no. Add source of microbes, their susceptibility pattern to normal antibiotics. Add source of Leishmania tropica.
Response
It is submitted that the standard chemicals used in this study have been marked with CAT number however general chemicals normally used in lab are purchased from Sigma and Merck. Furthermore source of microbes and Leishmania have been reported. It is also stated that we did not study susceptibility pattern against normal antibiotics though roxithromycin and terbinafine were used as standard drug as control. Their zone of inhibition are already marked in table.

Comment 7. Add snaps of cell lines before and after treatment as well as Leishmania promistigotes pre-and post-therapy.
Response
It is stated that we normally do not get snaps of these assays because no specific information we observe from snaps.

Comment 8. The discussion section of the manuscript is poorly written and not well organized. The authors have to portray and compare their results with recently published articles in the same area. They have to reorganize the complete discussion section.
Response
As suggested by the reviewer, discussion section has been revised.

Comment 9. In the reference section maximum of the references are very old. The authors have to include some current literature in the revised version.
Response
It is submitted that as stated before we have revised whole manuscript following the guidelines of the Editor and Reviewers; old references have been removed and recent references have been incorporated in the manuscript.

Comment 10. There are numerous grammatical mistakes throughout the manuscript. The authors have to thoroughly check their manuscript to remove these mistakes. Language edit the manuscript via an expert.
Response
As directed the grammatical errors have been removed and we also got help from native English speaker for editing.

Reviewer 2

We are thankful to the reviewer for valuable suggestions and recommendations. We kept in account all suggestion while revising the manuscript. The response of each comment is given below.

Comment
1) Title: 'Arisaema Jacquemontii' should be corrected as 'Arisaema jacquemontii' and the author name Blume should not be in italics.
Response
As directed by the reviewer, the typographic mistake has been corrected

Comment
2) Abstract should be rewritten to make it more clear to understand. The background is not complete as authors can mention the necessity of this research. Methods should be explained in little more detail. Please keep comma (,) before respectively in whole manuscript. There should be one space before unit i.e. Line 59, 12.5±1.77mm should be ..1.77 mm and similar throughout manuscript.
Response
Following the directions and suggestions of the reviewer, whole abstract has been revised
Comment
3) There are many typographical errors such as 'phytochemical a, antioxidant poentaial and cytotoxic/chemopreventive activities of Arisaema jacquemontii' a after phytochemical?? potential is spelled incorrectly, cytotoxic is spelled incorrectly, etc. Please check the manuscript carefully before submission of revised form.
Response
It is submitted that with the best of our knowledge we have removed all typographic errors.

Comment
4) Background: Second paragraph, please mention the complete scientific name of plant Arisaema jacquemontii Blume and family.
Response
As directed by the reviewer, the said changes have been made

Comment
5) Page 4, authors used 11 different solvents of different polarity (either single solvent or mixtures of two solvents). I wonder why did they not use water as water or hot water is used to formulate many traditional medicines. Table 1 has list of solvents that are said to be grouped from non polar to polar but as per my knowledge acetone is more polar than ethyl acetate. I think it is better to mention their polarity index and order them properly. For example, mixture of methanol and ethyl acetate will be less polar than methanol only. Also mention the ration of solvent in mixtures. I hope it is 1:1.
Response
We endorse reviewer comment. It is stated that the solvents are not marked according to polarity. This is general statement that polar and non polar solvents are used. Water decoction was not used because we want to determine phenolics and flavonoids that destroy on heating. However simple water can used. We will keep this point in account while designing further experiment. The polarity index can be provided for the individual solvents however in combination what will be polarity, it should be experimented. The ratio of combination of solvent for extraction has been marked as 1:1.

Comment
6) Page 5, Line 4, Tape water to Tap water.
Line 27, Previously. Briefly
Response
The typographic mistakes have been removed

Comment
7) Page 5, Line 46 is not clear. I hope they mean to write was determined by using the method reported previously.
Response
The sentences have been revised

Comment
8) There are many mistakes like 'by previously'. Correct all.
Response
It is submitted that such mistakes have been corrected throughout the manuscript

Comment
9) Remove Cytotoxicity assay at Page 7.
Response
The heading has been removed as directed

Comment
10) Results: table 1, please use uniform digits after decimal i.e. either two or three digits in all uniformly.
Response
It is submitted that for accuracy two digits have been marked after decimal

Comment
11) Page 15, Line 59 (Cepla\eanu et al., 1994 should be numbers as uniform referencing style.
Response
It is stated that all references have been checked for uniformity in reference style

Comment
12) Table 2, correct microorganism names such as E. aerogens (add space in between), and start species name with small letter. Same for Table 3 and text.
Response
As directed by the reviewer, table 2 has been revised

Comment
13) Table 4. remove % after HL-60
Response
As suggested, % has been removed

Comment
14) Fig. 1, Y-axis: DPPH
Response
It is submitted that Fig 1 has been revised as directed