Author’s response to reviews

Title: Acacia hydaspica R. Parker Prevents Doxorubicin-Induced Cardiac Injury by Attenuation of Oxidative Stress and Structural Cardiomyocyte Alterations in rats

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Author’s response to reviews:

To

Dear editor

I am pleased to submit a revised article entitled “Acacia hydaspica R. Parker Prevents Doxorubicin-Induced Cardiac Injury by Attenuation of Oxidative Stress and Structural Cardiomyocyte Alterations in rats” in the Journal of BMC Complementary and Alternative medicine.

Reviewers’ comments

Protus Arrey Tarkang, Ph.D (Reviewer 1)

1- Title: The more appropriate word would be preferred to "abrogation", in describing the mode of action of A. hydaspica. Maybe "attenuation"

Response: Added

2- The role of ROS in DOX-induced cardiotoxicity remains a major concern in cancer chemotherapeutics. Therefore, the continuous search for antioxidants that attenuate this phenomenon is very important. Natural products have been known to be good sources of phenolic compounds with good antioxidant activities. In this regard, this study is very
relevant. However, the language of reporting is very poor and the manuscript generally needs extensive editing.

Response: whole manuscript has been edited

3- Material and Methods

Drug and plant dose preparation

- Line 26-30: Repetition

Response: corrected

4- Acute toxicity evaluation

- The number of animals (6) per group for seven test groups is quite large. I suppose the OECD protocol describes a step-wise increase in dose testing of three animals at each dose. How do you observe neurological and autonomic effects in the test animals?

Response: The experiment corrected according to guidelines and detail of observed parameters has been explained

5- The maximum tested dose in this study is 4000 mg/kg bwt and one fourth of this is 1000 mg/kg bwt as against 400 mg/kg bwt mentioned in line 54.

Response: corrected

6- Experimental animals

- This section should come before the acute toxicity section and should also take into consideration the animals used for this test.

Response: shifted

7- Sample preparation

- The section is poorly described.
8- Cardiotoxicity indices

- Give the details of AMP diagnostic kits.

Response: included

9- Results

- Reporting of the results obtained is very poor and necessitates considerable improvement.

Response: rewritten and edited

D. S. Arya (Reviewer 2):

1. Whole manuscript needs to be revised as there are numerous typographical errors in the manuscript.

Response: revised

2. The work is novel but authors should have assessed hemodynamic parameters i.e. arterial blood pressure, heart rate, left ventricular pressure etc. for assessment of damage induced by doxorubicin and protection afforded by the extract. The authors should have performed molecular studies such as western blot and immunohistochemistry to demonstrate mechanism involved in its cardioprotective action. Biochemical and histopathological data are not sufficient to confirm protective role of any compound.

Response: The suggestions are good and already we have plans for further studies. We have investigated the in vitro anti-cancer and pro-apoptotic effect of isolated polyphenols from AHE against breast and prostate cancer cell lines and investigated several signaling pathways [1], and also we have tested the selectivity of plant extract against normal and cancerous cell lines [2]. For future studies we are planning for in vivo tumor xenograft studies and investigation of underlying mechanism of protection. But at this time, it’s not possible to conduct tumor model studies because we are waiting for funding to plan new experiments. Hopefully we will be able to address these points in our future manuscript.
References
