Author's response to reviews

Title: CCl4 induced genotoxicity and DNA oxidative damages in rats: Hepatoprotective effect of Sonchus arvensis

Authors:

Huda Alkreathy (halkreathy@gmail.com)
rahmat A Khan (rahmatgul_81@yahoo.com)
Muhammad Rashid Khan (mrkhangau@yahoo.com)
sumaira Sahreen (sumairasahreen@gmail.com)

Version: 4 Date: 22 August 2014

Author's response to reviews: see over
Dear Editor,

BMC Complementary and Alternative Medicine

Dear Sir,

**Subject: - Reference to manuscript Title:** CCl4 induced genotoxicity and DNA oxidative damages in rats: Hepatoprotective effect of Sonchus arvensis”

Dear Sir,

Reference to the reviewer Comments, Enclosed, please find a revised version of our Manuscript. Comments raised by reviewers are responded one by one. English of the whole manuscript was edited with help of our senior colleagues and highlighted in the manuscript. We hope that it will be now suitable for publication in your esteemed Journal.

Thank you for your attention.

Dr. Rahmat Ali Khan
Reviewer's report

Title: CCl4 induced genotoxicity and DNA oxidative damages in rats: Hepatoprotective effect of Sonchus arvensis

Version: 3 Date: 7 July 2014

Reviewer: Victor Romanov

Reviewer's report:

1. In materials and Methods (Animal and treatment) "Liver tissue was treated with liqued nitrogen" Please change for Liver tissue samples were frozen in liquid nitrogen.
   Ans: Changed as directed and highlighted in the manuscript.

2. Table 2 is not Triglyceridses and cholesterol
   Ans: Corrected and highlighted in the manuscript.

3. Fig 1 DNA ladder assay is not convincing enough
   Ans: Replaced with JPEG figure.

4. Table 4 is not liver enzymes activity. Looks like Table 2 must be Table 4
   Ans: Corrected in the manuscript.

5. It is still not clear what additional information DNA ladder assay provides.
   Ans: You are right but it provides very little information up to some extent. If not required I will delete it.

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests: I declare that I have no competing interests
Reviewer's report

Title: CCl₄ induced genotoxicity and DNA oxidative damages in rats: Hepatoprotective effect of Sonchus arvensis

Version: 3 Date: 27 June 2014

Reviewer: Nitin Gandhi

Reviewer's report:

Review Report on the MS entitled: “CCl₄ induced ….Sonchus arvensis” by Alkreathy et al

The MS describes the hepatoprotective effects of methanolic extract Sonchus arvensis. While the experiment description and presentation of the MS is straightforward, the MS is poorly written.

Major revisions:

1. The authors have not given the full description of the extract, from which part of the plant the extract is prepared and what was the yield?

Ans: Plant collection

The aerial parts of the plant was collected in September 2013 from District Bannu, KPK of Pakistan and was identified by its vernacular name and later validated by Dr. Mir Ajab Khan, Department of Botany, Quaid-e-Azam University, Islamabad. A voucher specimen (SAR-3122) was deposited at the Herbarium of Pakistan Museum of Natural History, Islamabad.

Extract preparation

The collected plant was cleaned to remove adhering dust and then dried under shade. The dried samples were powdered in a Willy Mill to 60-mesh size and used for solvent extraction. For sample preparation, 500 g of dried sample were extracted twice with 2 L of 95% methanol at 25
°C for 48 h. The extracts were filtrated through Whatman No. 1 and combined followed by concentration using a rotary evaporator (Panchun Scientific Co., Kaohsiung, Taiwan) under reduced pressure at 40 °C. The dry extract (50g) obtained was stored at 4°C for further investigations.

2. The authors have not dwelt upon the plant extract or its constituents. The authors have not evaluated the plant content in their laboratory nor have they mentioned clearly from literature the possible active ingredients.

Ans: Off course but the phytochemical investigations are in progress with collaboration of Charles strut University Australia. However reported constituents are given.

3. The author should make the formal identification of the plant material used to prepare the methanolic extract. Whether the specimen of the plant deposited in any herbarium?

Ans: Mentioned as above in question no 1.

4. If not the full identification of the ingredients in SME -authors should have at least given the signature HPLC graph for future reproducibility of the plant extract preparation.

Ans: Off course but the phytochemical investigations are in progress with collaboration of Charles strut University Australia.

5. How do the authors decided to use the dosage? Was there any toxicity study done?

Ans: Yes, but the data is not given here.

6. Although the Silymarin is used as the positive control (probably) there is no mention of the effects of Silymarin in the text.
7. How do the authors correlate the DNA damaging activity (and its protection by SME) with hepatotoxicity?

Ans: Of course, but here want to show that SME has the ability to recover the CCl4 induced oxidative hepatotoxicity at DNA level.

8. Treatment protocol of CCl4 is not described.

Ans: Revised

Minor Essential Revisions

1. The MS is poorly written, the readability of the MS can be increased if the authors give the thorough details about the plant extract, from where it is extracted, its constituents (if known), its dosage extrapolated to humans and toxicity of the compound.

Ans: Revised and added

2. How the authors see the outcome of the research work when it goes to actual application during the liver toxicity?

Ans: Further research work is in progress on this plant however the plant is recommended in crude form against hepatotoxicity.

3. Sigma chemicals is now Sigma-Aldrich

Ans: Replaced and corrected

4. SME - expand at first appearance in MS.

Ans: Revised and added
5. Background: “Carbon tetrachloride…and blood” seems to be incomplete sentence
   Ans: Corrected

6. Assessment of oxidative stress: “The entire chemicals….from sigma”
   Redundant please remove.
   Ans: Removed

7. DNA fragmentation % assay : % can be removed
   Ans: Removed

8. Also in same paragraph “read at 620 nm at…” kindly rectify the sentence.
   Ans: Corrected

9. Discussion line 10 “chelat” can be replaced with “scavenging”.
   Ans: Replaced

10. Some of the references are improperly formatted for example: 5, 6 and 7, or format all as per journal guidelines.
    Ans: Reformatted

11. Reference numbers in text is in BOLD should not be so.
    Ans: Reformatted

12. Under “Animals and treatment” second line “were kept in” could be “were housed in”
    Ans: Replaced

Level of interest: An article of limited interest
Quality of written English: Not suitable for publication unless extensively edited

Ans: Revised and extensively edited

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests
Reviewer's report

Title: CCl4 induced genotoxicity and DNA oxidative damages in rats:
Hepatoprotective effect of Sonchus arvensis

Version: 3 Date: 3 June 2014

Reviewer: Abdus Saboor Shah

Reviewer's report:

The article is very interesting and the Results are highly appreciable.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.