Reviewer’s report

Title: Artemisia annua L.: Sesquiterpene lactone fraction antinociceptive activity

Version: 3
Date: 8 May 2014

Reviewer: Mohammad Zafar Z Imam

Reviewer’s report:

Major Compulsory Revisions

1. Abstract: The authors have mentioned that Artemisia annua L. is traditionally used in malaria fever. The authors should mention traditional use that justifies the evaluation of analgesic activity. Though the authors have mentioned the relation between the isolated sesquiterpene lactones from other plants and antinociceptive activity in the introduction section, they should report direct traditional use of plants as well.

2. Drugs: Please explain how 1% Tween 80 in saline can be considered as vehicle justifying the use of Tween 80. In common practice only saline water is used as vehicle and if anything is added to it, irrespective of concentration, it is considered as a treatment group.

3. Writhing test: Please explain the basis of selection of doses. What is the basis of selecting different doses for different experiments?

4. Results: Acute toxicity: The method was not mentioned in the relevant section. The highest experimental dose used in the experiments was 300 mg/kg. This was also the highest dose that was used for acute toxicity. What is the reason for not selecting a higher dose to quantitatively report the toxicity profile?

5. Results: Evaluation of locomotor activity, Formalin test, Mechanical allodynia assessment, Tail flick test: Please revise the text so that it represents the results in a more interpretative, attractive and coherent language than just mentioning the values.

6. Conclusions: The findings are repeated as it was mentioned in the abstract. Please paraphrase the findings and also include future directions.

7. Figure 7: Explain the reason of insignificant results of Dexamethasone up to 4 h observation and no further reduction in plant fraction group.

8. Figure 8: Naloxone should be used in combination with the treatment at other test doses also.

9. Statistical analysis: In such comparisons Dunnett’s test is more commonly used as all treatment groups are compared with control group only. Please explain the reason(s) to select Bonferroni’s test for comparisons.

10. Please correct the typographic errors in the manuscript.

Minor Essential Revisions
1. Abstract: Please mention the results in as summary and without numbering.
2. Chromatographic analysis: “… was accordingly to methods previously developed ….” Please correct the sentence.
3. Tail flick test: MPE should be %MPE. Please change the terms “morphine associated with naloxone” and use more appropriate terms to represent the group.
4. Results: hipernociception should be hypernociception.
5. References: The references do not conform in style as per guidelines of the journal.
6. Figure 7: Please correct the spelling of Vehicle.

Discretionary Revisions

1. Materials and methods: Please mention the person/organization who confirmed the identification of the sample.

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**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