Reviewer's report

Title: Evaluation of Anti-inflammatory and Gastric Anti-ulcer Activity of Phyllanthus niruri L. (Euphorbiaceae) Leaves in Experimental Rats

Version: 0 Date: 05 Sep 2016

Reviewer: Susan Semple

Reviewer's report:

This manuscript describes testing of leaf extracts of the widely distributed species Phyllanthus niruri for anti-inflammatory activity and gastro-protective effects. The assays used are the carrageenan-induced paw oedema model and ethanol-induced gastric mucosal injury in rats. A simple chemical screening analysis was also conducted, although the methods for the chemical analysis are not clearly described.

1) While some significant activity is certainly demonstrated, and several classes of compounds were detected in the extracts, my main concern was the lack of information presented in the manuscript on what this study adds to the work that has already been published in the literature on the activity of this plant species.

As presented in the Introduction (page 4 line 21-35) there have already been studies of the chemical constituents of this plant species, a standardised extract of the plant has been shown to have anti-inflammatory activity in carrageenan-induced paw oedema model (reference 12) and a leaf extract has shown activity in reducing ethanol-induced gastric mucosal injury in rats (reference 14).

There is no explanation of what this study adds to the existing literature.

- Is the plant known to have chemical variability over its distribution range?
- Was the study aimed at examining the species grown in Bangladesh and correlating it with traditional usage in that country?
2) There was also a lack of comparison of the results found in this study with the previous studies in the Discussion section

3) In the methods section- the methods for the "Phytochemical analysis", histological examination and preparation of tissues for the scoring of gastric ulcers were not clearly described. For the extraction method, how was the "coarse powder" produced?

4) In the results - scale bars are needed on Fig 2-4

5) there are a number of places where the methods are presented in the future tense (e.g In the section Induction of ulcer, line 36 and line 49 … "Scoring of ulcer will be made as follows". "Will be expressed as ulcer index" This needs to be in the past tense.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics
Quality of written English
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organisation that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal