Reviewer's report

Title: Therapeutic Effects of Hydro-Alcoholic Extract of Achillea Wilhelmsii on Indomethacin-Induced Gastric Ulcer in Rats: A Proteomic and Metabolomic Approach

Version: 3 Date: 25 Jun 2019

Reviewer: Peter Achunike Akah

Reviewer's report:

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It is not debatable that the subtype of muscarinic receptor in the parietal cell mediating acid secretion is the M1 and not M2 receptors. Therefore stating otherwise as in your introduction is misleading to the reading public especially those not familiar with autonomic pharmacology.

The method of LD50 determination is far from been clear. It is not a standard procedure unless it was invented by the authors. In this case the procedure should be fully described, indicating how many animals/group and why only 3 doses of the extract were used. LD50 testing conventionally employs more than 3 doses, and the last dose in this case should be more than 800 mg/kg. How the LD50 was calculated has to stated.

It is inappropriate to use ranitidine as the positive control in this study since indomethacin-induced ulcer is not mediated via release of histamine. Indomethacin like other NSAIDs is a COX enzyme inhibitor.

Your conclusion is that AW should be developed for the therapy of indomethacin-induced ulcer. In my view this is very specific and narrow. Indomethacin-induced ulcer is not as common as ulcers from other causative factors like alcohol, stress, other drugs, etc. hence the use of other models of ulcer is imperative.
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.

No

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
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Needs some language corrections before being published

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