Reviewer’s report

Title: A botanical from the antiproliferative Cameroonian spice, Imperata cylindrica is safe at lower doses, as demonstrated by oral acute and sub-chronic toxicity screenings.

Version: 1 Date: 27 May 2020

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?
No - there are minor issues

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?
Yes - the approach is appropriate

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?
Yes - experiments and analyses were performed appropriately

STATISTICS - Is the use of statistics in the manuscript appropriate?
Yes - appropriate statistical analyses have been used in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?
No - there are major issues

OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?
Maybe - with major revisions

PEER REVIEWER COMMENTS:

GENERAL COMMENTS:
The manuscript in question describes the evaluation of toxicity of a methanol extract from a Cameroonian spice. Several parameters were analysed from animals treated with different concentration of the roots of Imperata cylindrica to provide valuable information of the possible use of the extract in disease treatment. The overall design of the study seems appropriate in view of animal number and parameters tested

REQUESTED REVISIONS:
It is not clearly given for which treatment the root extract is considered. Several activities were described and one main target is the antiproliferative activity. For a cancer treatment 30 days seems to be too short to find conclusion.

An explanation why to use roots extract when leaves apparently have same or similar effect and why methanol root extract when aqueous root extract has same or similar effect is missing at all. Leaves are much easier to collect without destroying the plant (sustainable) and water extract is more useful and greener than methanol (its self is toxic and not common in pharmacy). This should be clearly explained and prooven e.g. different metabolites in the different tissues and extractions etc.

ADDITIONAL REQUESTS/SUGGESTIONS:
The whole manuscript need to be revised very carefully for typos, unnecessary spaces, redundancies, commas:
whole manuscript: there is a lot of redundancy, e.g. mentioning the plant the extract is not needed in every third line; readers know after introduction which plant is used and in what concentration; smooth this to make the reading more attractive!
Use abbreviations after they were introduced first time; correct in whole manuscript!
It is not necessary to mention "below" for tables and figures; delete!
in the discussion many sentence are separated by "semicolon". Avoid and make clear full sentence instead.
whole manuscript: use always "b.w."

page 5, line 32: write the first time in the text Imperata cylindrica as full name and in the following I. cylindrica - correct in the whole manuscript including figuer and table legends!
page 5, line 40: delete "activity" and twice "properties"
page 5, line 59: delete "of this plant"
page 6, lines 6 to 21: to gibe here all the IC50 values is not relevant and should be deleted!
page 6 line 36 to 41: rephrase the sentence "In addition, some chemicals ...."
page 9 line 21: instead of "04" write "four"
page 9, line 26: instead of "03" write "remaining three"
page 9, line 33: specify the test periode; how long it is? 30 days?
page 10, lines 30 to 35: dont use capitals; write "Haemo..." not "Hemo..."
page 10 line 45: insert "(TC)" for total cholesterol
page 11: line 41: rephrase; is not the pplant which kills!!
page 11, line 56: write "higher" instead of "greater"
page 12/13: each paragraph starts with the exact same sentence; rephrase!!!
page 15, line 36: is the first hypothesis is rejected provide another
page 15, lines 21 to page 16, line 9: rephrase the whole paragraph; is not in logical order
page 16, line 6: if the effect of the plant is toxic why it should be used??????
page 16, line 29: abbreviations "SDH" and "GLGH" are not necessary as not used again!
page 16, line 48 to 54: rephrase "so one can think" and "is not far from" - that is not scientificy correct language!
page 17, line 16: explain the "many factors" in more detail
page 17, line 33 to 41: how decreased LDL in the present study can confirm the cited works of others?

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

Yes

**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.

No

**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:

Needs some language corrections before being published

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

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