Author's response to reviews

Title: Study of Sedative activity of different extracts of Kaempferia galanga in Swiss albino mice

Authors:

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

Thank you very much for your kind review of the manuscript entitled “Study of Sedative activity of different extracts of Kaempferia galanga in Swiss albino mice”. MS: 8512465413538524. The manuscript is revised as per reviewer suggestion and submitting to you for publication. However following changes are made in the revised manuscript:

**Reviewer's report**

**Title:** Investigation of Neuropharmacological activity of Kaempferia galanga in Swiss albino mice

**Version:** 1

**Date:** 6 November 2014

**Reviewer:** FRANCISCA CLÉA C FLORENÇO DE SOUSA

**Reviewer's report:**

**Discretionary Revisions**

The title should highlight the sedative activity K. galanga, since experimental models suggest this. Using the term "neuropharmacological activity" becomes very broad and not specifically translates what is presented in the study. I suggest replacing "Investigation of neuropharmacological activity ..." to "... study the sedative activity; it would value more work.

- The title of the article has been changed as the reviewer indicates.

I suggest indicate in the topic “Drugs and treatment”, how the fractions of the extract were reconstituted after the extraction process and solvent evaporation. Chloroform and methanol CNS depressant and could affect the results.

- Change made as indicated by the reviewer and now appears as follows:

After reconstituted in distilled water all the extracts were administered to the mice at 100 and 200 mg/kg per orally by gavage.

**Minor Essential**

I suggest put the topic on the experimental animals, the number of protocol approval by the Ethics Committee for the use of laboratory animals for the experiments.

- We have now included this sentence in the animals section as the reviewer indicates.

The correct dose of diazepam was not 2mg / kg, ip? The dose of 1mg / kg, i.p. is commonly used by researchers to assess anxiolytic and sedative activity not.

- We have now included diazepam 2 mg/kg as a standard drug for sedative activity as the reviewer indicates.
Major Compulsory Revisions

It would be important to better exploit the authors' discussion, compared to the results obtained. The discussion is being conducted for a sedative or anxiolytic activity of fractions of K. galanga?

The reduction in sleep latency and increased total sleep time are classic parameters to relate the action of CNS depressants (Dandiya et al., 1959). Thus, considering that the fractions exerted its effects by decreasing sleep latency, increased total sleep duration by decreasing locomotion in the Open field and Hole cross test, the results indicate a sedative activity of K. galanga and not anxiolytic. Maybe not so much necessary to explore the neurophysiological aspects of the GABA receptor in the discussion; since the experimental results and the models do not provide much support for it.

- Now the discussion has been conducted for a sedative activity of fractions of *Kaempferia galanga*. We have now included the following sentence in the second paragraph of the discussion section as the reviewer indicates.

- The reduction in sleep latency and increased total sleep time are classic parameters to relate the action of CNS depressants (Dandiya et al., 1959) [30]. Thus, considering that the fractions exerted its effects by decreasing sleep latency, increased total sleep duration by decreasing locomotion in the open field and hole cross test, the results indicate a sedative activity of *Kaempferia galanga*.

It would be important because the authors describe not perform any testing to confirm that the activity of fractions of K. galanga is sedative or CNS depressant locomotor activity at the skeletal muscle level. Changes in motor coordination can very often affect the performance of animals in the Open field test and Hole cross test. Therefore, the effects of fractions of K. galanga should have been studied in the Rota Rod test, a classic animal model for evaluating peripheral neuromuscular activity (Amaral et al, 2007; ADZU et al., 2002). Indicate the completion of a possible sedative effect of fractions K. galanga but that larger studies are needed to confirm these effects.

- The following statements now appear in the end of the discussion section of the paper.

This study suggests the possible CNS depressant activity of the different extracts *Kaempferia galanga* on experimental animal models in dose dependent manner.
Reviewer's report
Title: Investigation of Neuropharmacological activity of Kaempferia galanga in Swiss albino mice
Version: 1 Date: 24 December 2014

Reviewer: Sihao Zheng

Reviewer's report:
Major Compulsory Revisions

1. The title could not be better revealed the study in this manuscript, the “different extracts” should be added.
   • The title of the article has been changed as the reviewer indicates.

2. In the Abstract, the background should be rewritten, and the description for the extracts should be removed into the part of Methods. In the Conclusion, the different between the effects of different extracts should be added.
   • Background has been rewritten and we have now included the description for the extracts in the methods part. The different between the effects of different extract has been added in the conclusion part.

3. The Key words should be rewritten.
   • Done

4. In the Background, the authors should pay more attention on introducing the research progress and existed problems of the research for investigating the activity of K. galangal rather than the main constituents.
   • Change made as indicated by the reviewer

5. In the Discussion, the authors should discuss the results of this experiment with previous studies. But the authors mainly introduced the GABA and other irrelevant aspects.
   • Change made as indicated by the reviewer

6. The authors should rewrite the part of Conclusion. The results of this study should be fully summarized.
   • The results of this study has been fully summarized and included in the conclusion part.

7. The format of the tables should be revised as the demand of the journal
   • Has been revised
Minor Essential Revisions

1. In the first paragraph of Abstract
Line 1, the Latin Name should be revised to ‘Kaempferia galanga’, and should remove the ‘(K. galanga)’; ‘use’ should be revised to ‘used’

• Now K. galanga has been changed to Kaempferia galanga and use has been changed to used

Line 4, ‘petroether’ should be revised to ‘petroleum ether’?
• Now petroether has been changed to petroleum ether.

2. In the line 3 of second paragraph in Abstract, ‘p.o.’ should not be abbreviated.
• p.o has been abbreviated to per oral

3. In the line 1 of fourth paragraph in Abstract, ‘CNS’ should not be abbreviated.
• CNS has been abbreviated to central nervous system

4. In the Key words, the Latin Name should not be abbreviated.
• Done

5. In the Background, the authors should revise the mistakes of English grammar carefully. The tense should be the past tense.
• Done

In line 3, ‘introduced in Northern Australia’ should be revised into ‘introduced into Northern Australia’
• Done

In line 6, ‘is used as a’ should be revised into ‘is used for’;
• Done

In line 9, ‘In Japan, for K. galanga possesses a strong characteristic balsamic odor, it has been used as one of the main ingredients in a scent bag’ should be rewritten.
• Done

In line 15, ‘i.e.’ should be revised.
• Has been revised

6. In the part of Methods

In the line 1 of first paragraph, ‘was’ should be revised into ‘were’
• Done

In the line 2 of first paragraph, ‘Dust, dirt’ should be revised into adjective;
• Has been removed
In the line 4 of first paragraph, ‘has’ should be revised into ‘had’
  • Done

In the part of ‘Chemicals’, the author should added the details for the chemicals;
  • Change made as indicated by the reviewer and now appears as follows:

Diazepam was purchased from Square Pharmaceuticals Ltd., Bangladesh; thiopental sodium was purchased from Gonoshasthaya Pharmaceuticals Ltd., Bangladesh; 0.9% sodium chloride solution (Normal saline) was purchased from Orion Infusion Ltd., Bangladesh and other reagents were of analytical grade.

In the line 5 of the part of ‘Animals’, ‘fed’ should be revised into ‘feed’.
  • Done

7. In the part of ‘Discussion’, the authors should carefully revised the tense of the sentences; in line 5 of the second paragraph, the reference of ‘[27]’ should be removed to the end of this sentence.
  • Done

Discretionary Revisions
Some specific issues might be considered for the authors to revise this manuscript.

1. Line 6 in the first paragraph of Abstract, ‘were subjected to’ might be revised.
   • ‘were subjected to’ has been changed to ‘were examined for’

2. In the line 3 of the part of ‘Results’, ‘greater’ is correct?
   • ‘greater’ has been changed to ‘higher’

All changes in the revised manuscript are indicated by red mark.

Thanking you.

Sincerely Yours

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