Author's response to reviews

Title: A preliminary evaluation of antihyperglycemic and antinociceptive activity of Alternanthera sessilis aerial parts

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Version: 2  Date: 7 May 2014

Author's response to reviews:

Reviewer's report (1)

Title:
A preliminary evaluation of antihyperglycemic and antinociceptive activity of Alternanthera sessilis aerial parts

Version:
1

Date:
7 April 2014

Reviewer:
Sitesh C C Bachar

Reviewer's report:

A minor revision-

In Methods of Abstract part, the sentence-

"Antinociceptive activity was determined by observed decreases in abdominal writhings in intraperitoneally administered acetic acid-induced gastric pain model in mice"

can be represented as -

Antinociceptive activity was determined by observed abdominal writhings in intraperitoneally administered acetic acid-induced gastric pain model in mice.

Corrected.

Level of interest:
An article of outstanding merit and interest in its field
Quality of written English:
Acceptable

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

Reviewer’s report (2)
Title:
A preliminary evaluation of antihyperglycemic and antinociceptive activity of Alternanthera sessilis aerial parts
Version:
1
Date:
2 May 2014
Reviewer:
Shahabuddin Choudhuri
Reviewer’s report:
02 May 2014
Minor corrections for 3274052321250686

Re: ’A preliminary evaluation of antihyperglycemic and antinociceptive activity of Alternanthera sessilis aerial parts’
Ahamed I Hossain, Md Faisal, Shahnaz Rahman, Rownak Jahan and Mohammed Rahmatullah
BMC Complementary and Alternative Medicine
Research article
Minor corrections for 3274052321250686
Dear Sir,
These are suggested minor corrections suggested for 3274052321250686.
Based on my assessment of the validity of the manuscript, I do advise:
- Accept after discretionary revisions (which the authors can choose to ignore)
It was a pleasure to be of some help to your esteem publishing house.
Prof. M. Shahabuddin K. Choudhuri
Professor of Pharmacy
Dear Prof Choudhuri,

Many thanks for agreeing to review the above manuscript, submitted to BMC Complementary and Alternative Medicine. 

..........................deadline for your report, which is 2 May 2014.

With best wishes,

Miss Carisse Reyes

on behalf of Prof Vanessa Steenkamp

/////////CORRECTIONS SUGGESTED/////////

Title

A preliminary evaluation of antihyperglycemic and antinociceptive activity of Alternanthera sessilis aerial parts

Will be

A preliminary evaluation of antihyperglycemic and analgesic activity of Alternanthera sessilis aerial parts

Corrected.

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Running title: Antihyperglycemic and antinociceptive activity of A. sessilis aerial parts

Will be

Running title: Antihyperglycemic and analgesic activity of A. sessilis aerial parts

Corrected.

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Abstract

Background. Alternanthera sessilis is used by folk medicinal practitioners of Bangladesh for alleviation of severe pain. The objective of this study was to scientifically analyze the
antinociceptive property of aerial parts of the plant along with antihyperglycemic activity.

Will be

Abstract

Background. Alternanthera sessilis is used by folk medicinal practitioners of Bangladesh for alleviation of severe pain. The objective of this study was to scientifically analyze the analgesic (non-narcotic) property of aerial parts of the plant along with antihyperglycemic activity.

Corrected.

Methods. Antihyperglycemic activity was measured by oral glucose tolerance tests. Antinociceptive activity was determined by observed decreases in abdominal writhings in intraperitoneally administered acetic acid-induced gastric pain model in mice.

Corrected.

Results.

In antinociceptive activity tests, the extract at the above four doses reduced the number of abdominal writhings by 27.6, 37.9, 41.4, and 44.8%, respectively. A standard antinociceptive drug, aspirin, reduced the number of writhings by 31.0 and 51.7%, respectively, when administered at doses of 200 and 400 mg per kg body weight.

Corrected.

Results.

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writings by 27.6, 37.9, 41.4, and 44.8%, respectively. A standard analgesic drug, aspirin, reduced the number of writhings by 31.0 and 51.7%, respectively, when administered at doses of 200 and 400 mg per kg body weight.

Methods
Antinociceptive activity evaluation through abdominal writhing test
Antinociceptive activity of MEAAS was examined as previously described [19] divided into seven groups of five mice each. Group 1 served as control and was administered vehicle only. Groups 2 and 3 were orally administered the standard antinociceptive drug aspirin at doses of 200 and 400 mg per kg body weight, respectively.

A period of 5 minutes was given to each animal to ensure bio-availability of acetic acid [20].

Analgesic activity evaluation through abdominal writhing test
Analgesic activity of MEAAS was examined as previously described [19] divided into seven groups of five mice each. Group 1 served as control and was
administered vehicle
only. Groups 2 and 3 were orally administered the standard non-narcotic
analgesic drug aspirin at doses of 200
and 400 mg per kg body weight, respectively.

A period of 5 minutes was given to each animal to ensure onset of chemically
induced irritation of acetic acid
[20]
Corrected.

Results
Antinociceptive activity evaluation results
A standard antinociceptive drug, aspirin, when administered to experimental
animals at
doses of 200 and 400 mg per kg body weight, reduced the number of writhings
by 31.0 and 51.7%,
respectively. Thus the three higher doses of MEAAS exhibited greater
antinociceptive activity than
aspirin when administered at a dose of 200 mg per kg body weight. The results
are shown in Table 2.

Analgesic activity evaluation results
A standard non-narcotic analgesic drug, aspirin, when administered to
experimental animals at
doses of 200 and 400 mg per kg body weight, reduced the number of writhings
by 31.0 and 51.7%,
respectively. Thus the three higher doses of MEAAS exhibited greater analgesic
activity than
aspirin when administered at a dose of 200 mg per kg body weight. The results
are shown in Table 2.

Discussion
Intraperitoneal administration of acetic acid can lead to gastric pain (with
abdominal writhings) by inducing the release of mediators like prostaglandin E2, as well as lipooxygenase products [26]. Prostaglandins [mainly prostacyclines (PGI$_2$) and prostaglandin- (PG-E)], in turn, has been shown to be responsible for excitation of A$_\#$-nerve fibers, leading to the sensation of pain [27, 28]. Thus the observed antinociceptive activity of MEAAS can be due to its ability to block prostaglandin synthesis through inhibition of lipooxygenase and/or cyclooxygenase activities. A similar mechanism has been proposed before for antinociceptive activity of Ficus deltoidea aqueous extract in acetic acid-induced gastric pain model [26].

Will be

Discussion

Intraperitoneal administration of acetic acid can lead to pain (with consequent abdominal writhings) by inducing the release of mediators like prostaglandin E2, as well as lipooxygenase products [26]. Prostaglandins [mainly prostacyclines (PGI$_2$) and prostaglandin- (PG-E)], in turn, has been shown to be responsible for excitation of A$_\#$-nerve fibers, leading to the sensation of pain [27, 28]. Thus the observed non-narcotic analgesic activity of MEAAS can be due to its ability to block prostaglandin synthesis through inhibition of lipooxygenase and/or
cyclooxygenase activities. A similar mechanism has been proposed before for analgesic activity of Ficus deltoidea aqueous extract in acetic acid-induced pain model [26] Corrected.

Level of interest:
An article of importance in its field

Quality of written English:
Acceptable

Statistical review:
Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests