Author's response to reviews

Title: Antioxidant and gastric cytoprotective prostaglandins properties of Cassia sieberiana root bark extract as an anti-ulcerogenic agent.

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Author's response to reviews: see over
1st Reviewer's report

**Title:** Antioxidant, anti-inflammatory and safety properties of Cassia sieberiana root bark extract.

**Version:** 1  **Date:** 26 May 2011

**Reviewer:** UPAL KANTI Mazumder

**Reviewer's report:**

1. Title - What safety property you have measured when LD50 is more than 2000mg/kg.
2. Plant is known to have action against stomach disorder, gastric ulcer, stomach pain & indigestion. Does antioxidant property help to explain the above mentioned actions of the plant?
3. How do you correlate anti inflammatory action with increase in PGE2 & PGI2 level? Is there any supporting reference?
4. How do you conclude that antioxidant property is responsible for anti-ulcerogenic activity of the plant?
5. Figure 1-5 may be deleted results may be shown as IC50 values in the text.

Title of the paper and the background of the article are contradictory.

Results are not acceptable as prostaglandins are responsible for inflammation. But results claim increased value of prostaglandins after treatment with plant extract as an indication of anti inflammatory action. Hence the paper cannot be accepted for publication in this form.

**Responses:**

1. Acute toxicity was measured. Title is modified to reflect this level of safety study.
2. Yes, several studies [4-9, 13, 14, and 50] indicate that strong antioxidant properties can help explain the mechanism of action of anti-ulcerogenic agents.
3. The role of prostaglandins in gastric mucosal protection and healing has been extensively studied with the following references: [14-27]. The word anti-inflammatory is deleted as it may not fit in the context of the study.
4. The high antioxidant activity **may be** partly responsible for the observed stimulation of endogenous generation of PGE$_2$ and PGI$_2$, and the inhibition of PLA$_2$ activity and hence the therapeutic use as an anti-ulcer agent.

5. Figures 1-5 deleted and the corresponding IC$_{50}$ stated in the text as suggested.
**2nd Reviewer's report**

**Title:** Antioxidant, anti-inflammatory and safety properties of Cassia sieberiana root bark extract.

**Version:** 1  **Date:** 4 June 2011

**Reviewer:** Ilhami Gülçin

**Reviewer's report:**

In the present study the authors evaluated ferric reducing antioxidant power and hydroxyl radicals scavenging activity of. The extract also possesses DPPH scavenging activity, ferrous ions chelating and a dose-dependent protective effect of Cassia sieberiana root bark extract against lipid peroxidation and free radical generation. In this study anti-inflammatory studies showed that the root bark extract dose dependently increased PGE2 and PGI2 levels and also decreased sPLA2 activity. Also acute toxicity test showed no sign of toxicity up to a dose level of 2 g/kg body weight. The study was well-designed and well-performed. It can be accepted as regular manuscript after some amended corrections. These corrections were listed below:


2. At the same manner, after the information of diseases including Parkinson’s disease, diabetes mellitus, atherosclerosis and cancer [2-4].) the following actual reference should be given: “Polyphenol contents and antioxidant activity of lyophilized aqueous extract of propolis from Erzurum, Turkey. Food and Chemical Toxicology. (2010) 48 (8-9), 2227-2238.


4. Page 7: For the method of Protein determination, the original Lowry method must be cited.
Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Responses:

1. Suggested reference inserted

2. Suggested reference inserted

3. Suggested reference was not inserted.

4. The original Lowry method has been cited as suggested.