Reviewer's report

Title: Antioxidant and acetylcholinesterase-inhibitory properties of long-term stored medicinal plants

Version: 1 Date: 26 April 2012

Reviewer: Maan Bahadur Rokaya

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Reviewer's comments

- Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached).

The research article ‘Antioxidant and acetylcholinesterase-inhibitory properties of long-term stored medicinal plants’ is interesting and well written. However, the manuscripts needs some improvements and are specifically written below:

Introduction
Although authors argue that plants are used for various ailments, similar literature review in introduction is lacking. The manuscript would have been better if authors specifically mention about the similar research that have been carried out elsewhere in the world and should show how their study is different and what is its significance?

Lines 70-80 briefly has mentioned the research objectives but need to point our more specifically.

Authors have mentioned 21 medicinal plants in Tables. Please mention their uses, habitats, local status and harvesting season in a separate Table. Are they frequently used, endangered or just easy to get access and authors made an attempt to study some plants (out of many). Please also mention habitats, local status and harvesting season.

Methods

Lines 96-102: It is not clear. Do authors mean that stored materials are always stored once they are dried in oven at 50 degrees or just tested materials were stored by herbaria in such a way? Please be more explicit.

Under what conditions were the plant materials stored, damp, dry, airy, in box, floor, etc? please mention this as it is important for degradation of plants that are stored for a long time.

Results and discussion

Results are well written but this section seriously lacks the discussion. Authors need to compare their findings with other researches and write what differences are there in their findings. They also need to mention why there are higher
amounts of phenolic and flavonoid contents in stored materials than fresh materials. Was it because of drying or some other reasons?

In the discussion, authors should specifically mention the possible uses of plants in different diseases other than only AD.

In the conclusion, the authors should somehow suggest how the plants should be stored?