Reviewer's report

Title: Anti Hyperglycemic and Renal Protective Properties of Terminalia chebula Seed Powder Chloroform Extract in Streptozotocin Induced Diabetic Rats

Version: 3 Date: 12 December 2005

Reviewer: Mark Miller

Reviewer's report:

General
The authors have observed that a lipidic extract of T. chebula seeds as the ability to lower blood glucose levels in a diabetic rat model, and associated with this action in a normalization of renal function over an 8 week period.

The authors are to commended on their use of both short and long term therapeutic strategies. The data supports the general conclusions. Nevertheless there are several issues that remain and need to be addressed.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1) there are numerous spelling errors and poor use of language. The Authors had been asked to address this in previous reviews and it will need correction before the study can be published. If the authors need outside assistance in this matter then I strongly suggest that seek help.
2) The rationale for testing the extract is not clearly stated. Personally I think they had the model running and went ahead to test the seed extract for any actions. In contrast to what was promoted on page 9, that T. cheluba is traditionally used for diabetes, I cannot find any supporting evidence for that application in the literature. Nor do the authors supply it. That is not belittle the observations but the traditional uses of the fruit are for predominantly gastrointestinal applications or wound healing.
3) Further to point two – why an extract of the seeds, and why a lipidic extract?
4) DOSE – the authors stated a series of limitations as concluding remarks but failed to discuss dose and potency. The highest dose – the one that conferred renal protection would be the equivalent of ingesting 21 grams a day for a diabetic patient. Rather high and probably not practical not cost effective, which is an argument that is used for traditional medicines.
5) The authors have addressed the comments by Dunning but need to address the comments raise by Schmidt as it pertains to language. Clinical applications of ayurvedic medicine have been ongoing for centuries and this is true for T. chebula, but the current result strays from this in that seeds and not fruit are used, at high doses and for a new application – diabetes. Thus, it will require more extensive evaluation before it can be concluded that it is comparable and feasible for treating diabetics in a manner comparable to the other ayurvedic applications.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)
**What next?**: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**Level of interest**: An article whose findings are important to those with closely related research interests

**Quality of written English**: Needs some language corrections before being published

**Statistical review**: No

**Declaration of competing interests:**

I declare that I have no competing interests.