Reviewer’s report

Title: Topical Green Propolis Improves Corneal Wound Healing and Inflammation in Rats following Alkaline Burns

Version: 1 Date: 14 May 2013

Reviewer: Alison M McDermott

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Major Compulsory Revisions

1. The description of how leukocytes were counted is not clear. How was the center of the lesion determined. Why were intermediate fields not counted. I do not understand the phrase “…with posterior calculation of the number of cells..”

2. The immunohistochemical analysis for Ki67 staining is not quantitative. For it to be quantitative the signal would have to be related to the amount of Ki67 present. The number of Ki67 cells can be counted and reported as has been done but the term quantitative cannot be used to describe the analysis.

3. Plotting the wound healing data in graphical form (e.g. % healing vs time) and including images of the fluorescein staining for vehicle and treated rats would be a more informative way of presenting the data.

4. I do not understand the comment about leukocytes being present in “all extensions of cornea stroma” .. what is an extension of the corneal stroma? Also it is quite clear that the majority of the inflammatory cells are confined to the anterior stroma which should be noted. The area of central necrosis in epithelium and stroma should be identified in Fig 1.

5. Where are the counts in Tab 2 from? Sum of all three counting areas?

6. The specificity of the Ki67 staining is questionable. The corneal endothelium, which divides infrequently, is stained positive for Ki67 suggesting some artifactual staining. A background control must be included.

7. The comment in the discussion about counts in the VH group being 50% higher than GP group needs to be revisited. 449 is not 50% more than 355.

Minor essential revisions

While very well written overall there are many instances where the English can be improved.

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, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests