Reviewer's report

**Title:** Assessment of the effect of phenytoin on cutaneous healing from excision of melanocytic nevi on the face and on the back.

**Version:** 1  **Date:** 23 February 2010

**Reviewer:** Mark WJ Ferguson

**Reviewer's report:**

This is a potentially interesting paper investigating the effect of topical phenytoin on healing of excision biopsies of melanocytic naevi on the face and on the back.

**Major compulsory revisions**

It was unclear whether this is a double blind trial or not. The authors indicate that naevi excision sites were treated either with a cream or with a cream plus phenytoin, but whether this was done in a way that was blind to the observer and the patient is unclear. This must be specified as it clearly affects the interpretation of the results.

Patients were followed up for a period of 60 days. It is not possible to assess final scar appearance 60 days post wounding. Most people agree that a scar does not become stable until at least 12 months post surgery, therefore any conclusions drawn about the effects of the cream or phenytoin on scarring are tentative and are only applicable to the immediate post surgical period.

In both the methods and the results, it is unclear whether or not two or more naevi excision sites are being compared, between patients or within patients or both i.e. if a patient had two or more naevi excised was one treated with cream and the other with cream plus phenytoin and the two compared or were all of the cream treated naevi excision sites compared with all of the phenytoin plus cream treated naevi sites in all patients. This is important. Was there any imbalance in whether or not an individual patient was treated with either cream or cream plus phenytoin? This may affect the interpretation of the results.

Throughout the manuscript there are many spelling errors, grammatical errors etc. the manuscript needs a thorough revision from an English language point of view to be clear and understandable to the reader.

**Minor essential revisions**

In the results section it states that most injuries treated with phenytoin had a larger area and the scars presented a flat and round shape in comparison with injuries treated with cream, because phenytoin inhibited the retraction of the skin. Does this mean that the scars were larger in the phenytoin treated group and if so isn't that a worse cosmetic outcome?

In the results it is stated that the epithelialisation was more intense in wounds
treated with phenytoin. I do not understand what the word “intense” means. Was the epithelialisation faster, was the epithelium thicker, was the epithelium more mature? Please describe accurately what was seen.

Table 3 indicates that the wounds treated with phenytoin had greater bleeding, exudates and hyperaemia, particularly at 7 days post wounding. Why was this?

The paragraph beginning “Sometimes the cosmetic results of the excision were not satisfactory ………” does not make sense as currently written. Did dermabrasion or curettage or intralesional infiltration with corticosteroids have to occur in this trial? Attention needs to be paid to this paragraph because I believe it is not accurately or carefully written and in its present form the meaning is completely unclear.

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

**Quality of written English:** Not suitable for publication unless extensively edited

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

**Declaration of competing interests:**

I am the Co-founder and Chief Executive Officer of Renovo, a biopharmaceutical company developing drugs for the prevention/improvement of scar appearance and acceleration of healing. Neither I nor Renovo are currently involved in any research or developments of phenytoin.