Reviewer’s report

Title: Assessment of the effects of skin microneedling as adjuvant therapy for facial melasma: a pilot study.

Version: 0 Date: 12 May 2017

Reviewer: Raja Sivamani

Reviewer’s report:

The authors present an interesting manuscript on the use of microneedles to assess their effect on melasma. While the authors present data that raises a novel use for microneedles, several points need further clarification and consideration.

1) It is not clear how the microneedles contributed to the improvement of the melasma compared to the triple therapy and the sunscreens since the subjects received all three therapies. The authors need to discuss why they are ascribing the lightening effects to microneedles rather than the triple therapy and the sunscreen use.

2) The authors need to acknowledge the lack of controls for this study as it would have been ideal to compare the microneedle/triple therapy cream/sunscreens to a group that was just triple therapy/sunscreens. Without this there is no way to know if the microneedles really added anything extra.

3) The authors need to expand the discussion as to how they believe microneedles work? The authors notes that the dermis may be altered in microneedle treated sites and that this may affect melasma. However, what are the roles of direct mechanical effects on the melanocytes and would there be enhanced drug delivery through the microneedle channels? Please expand the discussion as the the possible effects that microneedles may have as alteration of the dermis is only one possibility that is less likely than the other possible mechanisms.

4) The lack of controls does not justify the current title, "Clinical improvement and histologic changes promoted by skin microneedling in melasma: a pilot-study" as the role of the microneedles cannot be isolated. The authors should change the title to "Assessment of the effects of skin microneedling as adjuvant therapy for melasma: a pilot study"

Are the methods appropriate and well described?  
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?  
If not, please specify which controls are required in your comments to the authors.
No

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

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If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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