Author's response to reviews

Title: Activity of PORophyllum ruderal leaf extract and 670-nm InGaP laser during burns repair in rats.

Authors:

Ana Cristina J Jácomo (anajacomo@yahoo.com.br)
Karina A Velozo (karina_vellozo@hotmail.com)
Raquel G Lotti (posgraduação@uniararas.br)
Lia Mara G Neves (liumarabiologia@hotmail.com)
Fernanda OG Gaspi (fernandagaspi@uniararas.br)
Marcelo AM Esquisatto (marcelosquisatto@uniararas.br)
Maria Esméria C Amaral (esmeria@uniararas.br)
Fernanda AS Mendonça (fernandamendonca@uniararas.br)
Gláucia MT Santos (glauciasantos@uniararas.br)

Version: 3 Date: 30 June 2015

Author's response to reviews: see over
Araras – São Paulo/Brazil, June 30th, 2015.

To
Dr. James Prozenko
Editor-in-Chief, BMC Complementary and Alternative Medicine

Dear Professor,

Considering the suggestions of the reviewers again submit the manuscript with the changes marked in the text.
Below we answer the reviewers' comments.

Sincerely,

Dra. Gláucia Maria Tech dos Santos

Reviewer(s)' Comments to Author:
Reviewer #1 (Emilia Arisawa):
Methodology
Minor
It would be interesting to describe what the protocol used in the care of burns for all groups.

The manuscript was corrected as suggested:
Page 7-
“After induction of burns, the animals received pain killers: sodium dipyrone, one drop in the postoperative, after 12 and 24 h and they were placed in individual cages. Besides the treatments for repair of burns was not carried out any specific care except individualize the animals throughout the experimental procedure.”
Discussion

Major

Line 319- it is described the methodology used for specimens of the PL group. This information is missing at the Methodology.

Incorporated into the manuscript as suggested. (page 7)

“group PL, treated with the hydroalcoholic *P. ruderale* extract and 670-nm InGaP laser (extract applied prior to laser therapy).”

*It is reported that the P. ruderale extract was applied prior to laser therapy, and that green pigments present could have changed the action of this association. This is a fatal failure on the experimental design, which affect the analysis of the results for the experimental group PL, considering the histological analyses.*

Answer: The authors thank the reviewer by the contribution and consider that these results may contribute to the development of the experimental design in studies will use the herbal and laser association. Thus, the use of herbal medicines with pigmentation associated with laser irradiation needs to be investigated by further investigations, and will be interesting to see if the application of *P. ruderale* extract after laser irradiation in this type of injury promotes better results. Therefore, to clarify the experimental design, the below considerations were incorporated into the text:

Page 14-

“The combination of laser with *P. ruderale* did not promote the same answers that L and P groups. In PL group was observed fibroblast proliferation and anti-inflammatory action. However, a synergistic effect was not observed between these two agents as expected when the experimental design was conceived. A probable explanation for this fact may be related to the permanence of the green pigment of leaves in *P. ruderale* extract, even after lyophilization. This may have partially compromised the laser performance in the tissue, once when the laser was applied alone it was possible to observe its effectiveness in increasing the content of collagen fibers and the number of newly formed vessels in the injured area.”
Reviewer #2 (Shivananda Nayak):

Abstract:
Correct the investigate as investigated

The manuscript was corrected as suggested:

Background
Quote the recent references (Nayak BS et al) in the third paragraph and these authors did extensive work on wound healing using medicinal plants for both normal and burn wounds

Modified and incorporated into the manuscript as suggested:


Methods
Page 5: line 95-98: Rewrite the sentence

The manuscript was corrected as suggested:
“The qualitative identification of chemical constituents was carried out in the same extract as that used in the wound repair test using chemical methods [14] and thin-layer chromatography [16]. The chemical groups analysed were polyphenolic components, flavonoids, tannins, alkaloids, saponins, fatty acid, triterpenes, volatile oils, coumarins, and anthraquinones.”
Shorten the conclusion section

Modified as suggested.

“Conclusions
The results of this study indicate that laser irradiation 670-nm InGaP promoted beneficial responses in the repair process increasing collagen deposition and angiogenesis when was used separately. Porophyllum ruderale was effective in decreasing the granulocytes during the repair process indicating a possible anti-inflammatory action of this native flora, widely used in folk medicine, but little studied experimentally.”

Cut down the number of references and use only specific references

Modified as suggested.