Reviewer's report

Title: The Effect of low Intensity Shockwave Treatment (Li-SWT) on human Myoblasts and mouse Skeletal Muscle

Version: 0 Date: 30 Mar 2017

Reviewer: Pierpaolo Iodice

Reviewer's report:
In the present manuscript, Hansen and coworkers examined the effect of low intensity shockwave therapy (Li-SWT) on the tissue regeneration and vascularization in skeletal muscle and myoblasts. The authors report significant increase in expression of apoptotic, angiogenic and myogenic genes in vivo. Li-SWT did not induce significant changes in vitro cell survival, proliferation and apoptosis of myoblasts. The authors conclude that Li-SWT induced cellular changes that could promote muscle regeneration.

This article addresses an important clinical topic in treatment with Li-SWT and is well-conducted. However, I have reservations with the statistical analysis implemented. Below, I have provided a constructive feedback to the authors in an attempt to help them strengthen their manuscript.

General:
1. I advise the authors get editing help from someone with full professional proficiency in English.
2. At the end of the Introduction, please make sure to specify more clearly the hypotheses of the study.
3. A crucial flaw is the statistical analysis, authors generally report the statistic method used but we do not found out numerical data in results, discussion or in Figures. The authors have to specify the dependent factor for each statistical test and effect sizes as complement of statistical hypothesis testing.
4. Please justify your choice for using a paired t-test rather than a Friedman Test. Please note that the Friedman Test is the non-parametric equivalent of a Repeated-Measures ANOVA within a parametric paradigm.

5. To investigate effects of Li-SWT treatment at different days after injury a Repeated-Measures ANOVA analysis should have been more appropriate for the scope.

5. A more in-depth description of the Results should be provided. Specifically, comment on the magnitude of the observed differences for the non-parametric rank comparison.

6. Provide clear avenues for clinical procedure and future research. Specifically, expand on the theoretical and applied importance and novelty of results.

Specific Comments:

1. A space is sometimes placed between numbers and units, but not always (i.e., 10 cm and 10cm). Usage should be consistent.

2. The Authors used female mice, this choice has to be argued, a reference should be included.

3. Page 9 Line 39. "..was repeated every third day OF THE PERIOD"

4. Page 10 Line 34 " The data WERE analysed"

5. Page 11 Line 36 " Powervision...WAS used"

6. Page 22 Line 8-16. This sentence should be rephrasing.

7. Fig 3 caption: the tense needs to be consistent here

8. Frequently in manuscript the tense switches between past and present - please make this consistent

9. The manuscript (including the abstract) contains several small typos that could benefit from proof-reading.

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.

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

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
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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