

ESPS Peer-review Report

Name of Journal: World Journal of Methodology

ESPS Manuscript NO: 3495

Title: Effect of low energy level laser therapy on human pulp tissue during orthodontic dental movement. A pilot study

Reviewer code: 00742157

Science editor: Song, Xiu-Xia

Date sent for review: 2013-05-02 16:07

Date reviewed: 2013-05-15 23:28

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A (Excellent)	<input type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B (Very good)	<input type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C (Good)	<input type="checkbox"/> Grade C: a great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)		<input type="checkbox"/> No records	<input type="checkbox"/> Major revision

COMMENTS TO AUTHORS

1. The Methods and Results: -The teeth obtained from G3 group were orthodontically treated for 2 months period, while those from G4 group were forced only 1 month before extractions. Therefore, the results obtained from both groups could not be compared. The authors may explain them independently as seen from each group. -It is unlikely that an angiogenesis could be evaluated under normal H&E sections. Furthermore, nerve fibres mostly occupied the cell-free zone of Weil can be demonstrated either in silver nitrate-stained sections, or by immunocytochemical techniques to discharge various proteins associated with nerves under the LM. See also: Ten Cate's Oral histology, 7th edition Chapter 8, 230-231. In this study, it would be better to leave the findings of angiogenesis, and nerve density in the Results. -The criteria of histological examination, and grading the result should follow the study of Sübay RK, Kaya H, Tarim B, Sübay A, Cox CF, Response of human pulpal tissue to orthodontic extrusive applications. J Endod. 2001 Aug;27(8):508-11. The main findings and evaluation should be classified in to 3 parts; an inflammatory response, soft tissue response, and hard tissue (dentin) response. -The findings of pulpal necrosis should be carefully evaluated. As shown in Fig 1, it is not known that which part of this section was taken from. Perhaps, this tissue was damaged during the use of a high-speed cutting bur, when the teeth were cut into 2 fragments. Furthermore, the authors should indicate in more detail regarding to the force direction, including a possibility of traumatic occlusion during the orthodontic treatment, as it is unlikely that this could cause pulpal necrosis. -In the Results, the authors should not use the words " a significant difference" to compare what they found from each group. This is due to the fact that there is no statistical analysis in this study. 2. Discussion and Conclusion -These should be corrected



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following an improvement of those parts above. The English is a major concern of a whole manuscript, including a lot of typographical errors. Minor's concern 1. The methods are incompletely described eg. The subjects' age, the details of orthodontic instrumentations. 2. The ethical issues should also conform with the principles of the declaration of Helsinki. 3. Some important data such as the tooth number, the type of treatment or groups (G1-G4) were missed in Figure legends

ESPS Peer-review Report

Name of Journal: World Journal of Methodology

ESPS Manuscript NO: 3495

Title: Effect of low energy level laser therapy on human pulp tissue during orthodontic dental movement. A pilot study

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CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A (Excellent)	<input type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B (Very good)	<input type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C (Good)	<input type="checkbox"/> Grade C: a great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)		<input type="checkbox"/> No records	<input type="checkbox"/> Major revision

COMMENTS TO AUTHORS

GENERAL COMMENTS The study was a pilot study to evaluate the effect of low energy level laser therapy on human pulp tissue during orthodontic dental movement. It presents a protocol/ experimental design to verify histological characteristics of the human pulp. Using this protocol/ experimental design the authors verified a number of histological findings not previously reported in human pulp, after application of LLLT in teeth under orthodontic movement. The protocol proposed is interesting. However several alterations in the article are necessary. **MAJOR POINTS:** **GENERAL** English should be revised. Text formatting should be carefully reviewed. Check standards to bibliographic references. **AIM** The aim of the study should be modified: focus on the methodology instead of the results, since the N=2 sample per group does not allow conclusive findings. It is therefore advisable to do a descriptive analysis of the findings and give emphasis to the fact that "using this protocol you were able to verify these histological findings". **ABSTRACT** **Objective:** To describe histological changes in human pulp tissue, related to low level laser irradiation, during the initial stage of alignment and leveling in orthodontic treatment, USING THIS EXPERIMENTAL DESIGN. **Method:** (DESCRIBE SOONER THE METHODOLOGY) Histological preparations from eight human sound premolar teeth, obtained from the middle root level, were distributed in four groups: Group 1 (G1) absolute control, (G2) laser irradiation only, group 3 (G3) exposed only to orthodontics, and (G4) treated both with orthodontics and laser. Laser treatment was performed at 830 nm wavelength, 100mW (energy 80 J/cm², 2.2J), for 22 seconds in the vestibular surface and 22 seconds in the palatal surface, 1 mm away of the dental root mucose **Results:** REPORT THE FINDINGS. **Conclusion:** "Using this protocol/ experimental design it was observed a

number of histological findings not previously reported in human pulp, after application of LLLT in teeth under orthodontic movement.” INTRODUCTION Text is clear and well written. MATERIALS AND METHODS How the teeth were prepared was clearly described. Besides no information is given regarding the evaluation: microscopy, magnification, parameters evaluated, scores. How many people have evaluated in order to give the final scores? RESULTS Tables and figures should be referred within the text. Just describe the findings. Do not use terms like “No significant differences” or “significant”. Table 1 is not clear, please revise it. DISCUSSION Give more emphasis to the experimental design and compare with other previously reported in the literature. CONCLUSION Due the reduced sample give more emphasis to the experimental design. MINOR POINTS Number all pages consecutively TITLE PAGE Authors affiliation: “1” is the same thing that “a” and “2” that “b” ABSTRACT Please, consider the “Instructions to authors” and use the terms AIM, MATERIALS AND METHODS, RESULTS and CONCLUSION. KEYWORDS: Please include at least 5 Keywords. METHODS Please include the “Ethical issues” in the beginning of the Materials and Methods. RESULTS NC is described in the table as “WA: without alteration”. FIGURE LEGENDS Please include the groups in all legends.