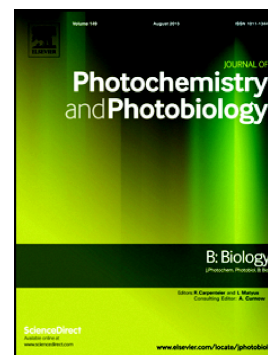


Accepted Manuscript

Photomodulation multiple sessions as a promising preventive therapy for medication-related osteonecrosis of the jaws after tooth extraction in rats

Cristian Statkiewicz, Luan Felipe Toro, João Martins de Mello-Neto, Daniela Pereira de Sá, Cláudio Aparecido Casatti, João Paulo Mardegan Issa, Luciano Tavares Angelo Cintra, Juliano Milanezi de Almeida, Maria José Hitomi Nagata, Valdir Gouveia Garcia, Leticia Helena Theodoro, Edilson Ervolino



PII: S1011-1344(17)31328-3
DOI: doi:[10.1016/j.jphotobiol.2018.05.004](https://doi.org/10.1016/j.jphotobiol.2018.05.004)
Reference: JPB 11238

To appear in: *Journal of Photochemistry & Photobiology, B: Biology*

Received date: 27 October 2017
Revised date: 12 March 2018
Accepted date: 3 May 2018

Please cite this article as: Cristian Statkiewicz, Luan Felipe Toro, João Martins de Mello-Neto, Daniela Pereira de Sá, Cláudio Aparecido Casatti, João Paulo Mardegan Issa, Luciano Tavares Angelo Cintra, Juliano Milanezi de Almeida, Maria José Hitomi Nagata, Valdir Gouveia Garcia, Leticia Helena Theodoro, Edilson Ervolino , Photomodulation multiple sessions as a promising preventive therapy for medication-related osteonecrosis of the jaws after tooth extraction in rats. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Jpb(2017), doi:[10.1016/j.jphotobiol.2018.05.004](https://doi.org/10.1016/j.jphotobiol.2018.05.004)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

PHOTOBIMODULATION MULTIPLE SESSIONS AS A PROMISING PREVENTIVE THERAPY FOR MEDICATION-RELATED OSTEONECROSIS OF THE JAWS AFTER TOOTH EXTRACTION IN RATS

Cristian Statkiewicz^{a,b}, Luan Felipe Toro^{a,d}, João Martins de Mello-Neto^{a,b}, Daniela Pereira de Sá^{a,b}, Cláudio Aparecido Casatti^{c,d}, João Paulo Mardegan Issa^e, Luciano Tavares Angelo Cintra^f, Juliano Milanezi de Almeida^{a,b}, Maria José Hitomi Nagata^{a,b}, Valdir Gouveia Garcia^{a,b}, Leticia Helena Theodoro^{a,b}, Edilson Ervolino^{a,c,d}

^aGroup for the Research and Study of Laser in Dentistry, São Paulo State University (UNESP), School of Dentistry of Araçatuba, Brazil.

^bSão Paulo State University (UNESP), School of Dentistry, Department of Surgery and Integrated Clinic, Rua José Bonifácio, 1193, CEP 16015-050, Araçatuba - SP, Brazil.

^cSão Paulo State University (UNESP), School of Dentistry, Department of Basic Sciences, Rua José Bonifácio, 1193, CEP 16015-050, Araçatuba - SP, Brazil.

^dSão Paulo State University (UNESP), Institute of Biosciences, Rua Prof. Dr. Antônio Celso Wagner Zanin, 250, CEP 18618-689, Botucatu - SP, Brazil

^eSão Paulo University (USP), School of Dentistry, Department of Morphology, Physiology and Basic Pathology, Avenida do Café, s/n, CEP 14040-904, Ribeirão Preto - SP, Brazil.

^fSão Paulo State University (UNESP), School of Dentistry, Department of Restorative Dentistry, Rua José Bonifácio, 1193, CEP 16015-050, Araçatuba - SP, Brazil.

* **Corresponding author at:** Address: Rua José Bonifácio, 1193, Araçatuba - SP, Brazil.

ABSTRACT

The aim of this study was to evaluate the effects of photobiomodulation (PBM) with multiple sessions of low-level laser on the alveolar repair process of rats with major risk factors for medication-related osteonecrosis of the jaws (MRONJ). Senile rats received 0.45 mL of vehicle (VEH and VEH-PBM) or 0.45 mL of 100 µg/kg zoledronate (ZOL and ZOL-PBM) administered intraperitoneally every two days during seven weeks. After three weeks of initiation of drug treatment the first lower left molar was extracted. No local treatment was performed in VEH and ZOL. VEH-PBM and ZOL-PBM were submitted to laser irradiation (660 ± 10 nm; 0.035 W; 2.1 J; 60 s) on the extraction site at 0, 2 and 4 days postoperatively. Euthanasia was performed 28 days after tooth extraction. Histological sections of the hemimandible were submitted to histopathological and histomorphometric analysis, as well as to histochemistry for

Download English Version:

<https://daneshyari.com/en/article/6493242>

Download Persian Version:

<https://daneshyari.com/article/6493242>

[Daneshyari.com](https://daneshyari.com)