

Review of: "Bisphosphonate-Related Osteonecrosis of the Jaws Treated with Platelet-Rich Plasma: Preliminary Results from a Case Series"

Diana Torge¹

¹ University of Aquila

Potential competing interests: No potential competing interests to declare.

The aim of this manuscript is to investigate the effectiveness of a new platelet-rich plasma preparation B.P.F.C. Bio-Plasma® Rich in Pure Growth Factors®, for obtaining Biologically Guided Regeneration, for the treatment of Bisphosphonate-related osteonecrosis of the jaws (BRONJ).

This manuscript is characterized by rich content, providing a deep insight for some works: the study is within the journal's scope, and I found it to be well-written, providing sufficient and up-to-date evidence. An organic and densely organized structure, based on well-synthesized information, is the hallmark of this manuscript: anyway, there are some suggestions necessary to make the article complete and fully readable. For these reasons, the manuscript requires major changes.

Please find below an enumerated list of comments on my review of the manuscript:

INTRODUCTION:

Please, the authors should provide a list of the abbreviations, mentioned in this manuscript.

Therefore, BPs are used to prevent and reduce hypercalcemia, pain and pathologic fracture (see, for reference: <http://dx.doi.org/10.19256/d.cadmos.02.2023.09>). The manuscript may benefit from providing, in this introductory section, an organic and brief description of the multiple applications of BPs in the treatment and management of several diseases.

Furthermore, the technology advancement and the available centrifuges allowed the possibility to obtain platelet concentrates on an outpatient basis: the centrifugation of the blood taken from the patient separates the plasma part, rich in platelets, for autologous therapeutic use. In this perspective, the fractioned blood is used to obtain both platelet gel (with a higher concentration of platelets than physiological) and fibrin glue with a high adhesive and hemostatic property (see, for reference: <https://doi.org/10.3390/biomedicines10020218>). Among the most applied platelet concentrates, there are: platelet-rich plasma (PRP) and platelet-rich fibrin (PRF), which represent the first and second generation, respectively.

DISCUSSION:

transforming growth factor beta (TGF-β)

endothelial growth factor (EGF)

vascular endothelial growth factor (VEGF)

insulin-like growth factor-1 (IGF-1)

Please, the authors should use the abbreviations, summarized in the list previously mentioned.

Besides, this manuscript is characterized by considerable originality and a great clinical impact. Regarding the strengths of this manuscript, the main topic is interesting, and this manuscript can be considered a significant contribute to the ongoing research on this topic, as it extends the research field on the effectiveness of a new platelet-rich plasma preparation B.P.F.C. Bio-Plasma® Rich in Pure Growth Factors®, for obtaining Biologically Guided Regeneration, for the treatment of Bisphosphonate-related osteonecrosis of the jaws (BRONJ). Overall, the contents are rich, and the authors also give their deep insight for some works.

As regards the section of methods, there is a specific and detailed explanation for the methods used in this study: this is particularly significant, since the manuscript relies on a multitude of methodological and statistical analysis, to derive its conclusions. The methodology applied is overall correct, the results are reliable and adequately discussed.

The conclusion of this manuscript is perfectly in line with the main purpose of the paper: the authors have designed and conducted the study properly. As regards the conclusions, they are well written and present an adequate balance between the description of previous findings and the results presented by the authors.

Finally, this manuscript also shows a basic structure, properly divided and looks like very informative on this topic. Furthermore, regarding figures, the authors should rewrite the bookmarks of the figure 7 in English. Moreover, the authors should also improve the quality of Figure 11, in order to make it easy to read. As regards the tables, they are complete, and organized in an organic manner.

In conclusion, this manuscript is densely presented and well organized, based on well-synthesized evidence. The authors were lucid in their style of writing, making it easy to read and understand the message, portrayed in the manuscript. Besides, the methodology design was appropriately implemented within the study. However, many of the topics are very concisely covered. This manuscript provided a comprehensive analysis of current knowledge in this field. Moreover, this research has futuristic importance and could be potential for future research. However, major concerns of this manuscript are with the introductive and discussion sections: for these reasons, I have major comments for these sections, for improvement before acceptance for publication. The article is accurate and provides relevant information on the topic and I have some major points to make, that may help to improve the quality of the current manuscript and maximize its scientific impact. I would accept this manuscript if the comments are addressed properly.