Reviewer’s report

Title: Does the Usage of Platelet Rich Fibrin Reduces the Pain and Swelling after Impacted Third Molar Surgery? Randomised multicenter Clinical Study

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Reviewer: Amaury J Pozos

Reviewer’s report:

Head & Face Medicine Editorial Team

Thank you for the opportunity to review the manuscript: “Does the Usage of Platelet Rich Fibrin Reduces the Pain and Swelling after Impacted Third Molar Surgery? Randomised multicenter Clinical Study”. This manuscript describes the efficacy of PRF in the healing process by evaluating the chances in pain and swelling after third molar surgery. I commend the authors for their efforts in addressing this study. There are some major considerations:

According to the instructions, I consider the following points:

1. Is the question posed by the authors new and well defined?
   The questioned posed by the authors is not new. Is preferable use the term of effectiveness in this case, because, although this is not a rule, when use a placebo in the control group your trial test the effect of your experimental condition, and, in the other hand, when you use a standard in the control group your trial test the efficacy of your experimental condition.

   Other aspects:
   • Introduction is limited and not to support completely the aim of the study.
   • The introduction is vague and lacks of a full description of the state of the art in the topic.
   • Provide a suitable rationale for the study and improve the bibliographic support.
   • It is recommended to provide a suitable null hypothesis.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?
   • In general the methods section is written in a confusing way, thus the information is difficult to integrate.
   • It is suggested to improve the detailing of the clinical experiments performed, and to clarify the experimental groups.
   • It suggested to review CONSORT Statement in order to review guidelines for report a clinical trials.
   • The text do not describe a method for blinding for evaluator.
• The study design, according with the text, is a randomized controlled Split-mouth clinical trial, the complete description for the design is very important, because this is relevant in the analysis, abstract and conclusion.

• Why authors use amoxicillin 1000 mg?

• Sample size method and sample method of including patients are missing.

• Is preferable have a concordance measurements with the method of evaluation of swelling, in this case this variable is relevant because the study was done in multicenter.

• The evaluation of pain in this case is difficult and the conclusion probably was wrong, because the patients have not the capacity for discriminate what side is worst in the pain scale at the same time.

• The randomized method would be describe in detail and the method of randomized numbers obtained by software is better than “coin toss”.

• There is no information regarding the amount of patients that were preevaluated and excluded from the study.

3. Are the data sound and well controlled?

• Although the demographic and basal characteristics are the same in the control and experimental group (in split-mouth design), is important a short description for the surgical time in both groups, the third molar clinical and radiographic classification.

• Randomized method is not suitable.

• When you use a t-test for multiple comparisons you will drop in Error type I. In this case we recommended use Mauchly´s test and after ANOVA for repeated measures, if the Mauchly´s test result significant we recommended a mixed model for control the dependence of the measures, if you decide use a multiple comparisons is very important a method for correction like Bonferroni.

• I recommended a new analysis using a mixed model or a correction like Bonferroni, probably the difference after a new analysis will not result significant.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?

• In general, the topic is interesting but the manuscript is not relevant, due the manuscript not included a new description of the possible clinical significance.

5. Are the discussion and conclusions well balanced and adequately supported by the data?

• In concordance with your results, the most important conclusion to bear in mind, is the justification of the Delta in this case 3.71 mm (at 72 h post), this difference result in the benefice of the patients (included the protocol for extraction the platelet)?

• Discussion section is limited. The discussion section lacks of a profound comparison of the results with previous works, and the results obtained in the
study are generally mentioned, but not analyzed.

- It is suggested to include study’s strengths and weaknesses and future directions.
- Include references that offers comparable details that can support the study (comparable previous works, lacks of previous evidence, biological or clinical present that can be correlated with the present one).

6. Do the title and abstract accurately convey what has been found?
I propose the follow title: Efficacy of platelet rich fibrin in the reduction of the pain (check) and swelling after impacted third molar surgery. Randomized multicenter split-mouth clinical trial.

7. Is the writing acceptable?
The writing is acceptable.

I think that, this manuscript not meets criteria for publication and is not suitable for publication.

Please include an Authors’ Contributions section at the end of the manuscript, before the reference list. We suggest the following kind of format (please use initials to refer to each author’s contribution):