

Platelet-rich fibrin and collagen matrix for the regeneration of infected necrotic immature teeth

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Handeling editor: Michal Heger Department of Pharmaceutics, Utrecht University, the Netherlands Department of Pharmaceutics, Jiaxing University Medical College, Zhejiang, China

Review timeline:

Received: 18 March, 2020 Editorial decision: 21 April, 2020 Revision received: 9 May, 2020 Editorial decision: 31 May, 2020 Revision received: 2 June, 2020 Editorial decision: 4 June, 2020 Revision Received: 6 June 2020 Editorial decision: 8 June 2020 Published online: 8 July, 2020

1st editorial decision: 21-Apr-2020

Ref.: Ms. No. JCTRes-D-20-00015 Platelet Rich Fibrin and Collagen Matrix in Regeneration of Infected Necrotic Immature teeth. Journal of Clinical and Translational Research

Dear Dr R,

Reviewers have now commented on your paper. You will see that they are advising that you revise your manuscript. If you are prepared to undertake the work required, I would be pleased to reconsider my decision.

For your guidance, reviewers' comments are appended below.

If you decide to revise the work, please submit a list of changes or a rebuttal against each point which is being raised when you submit the revised manuscript. Also, please ensure that the track changes function is switched on when implementing the revisions. This enables the reviewers to rapidly verify all changes made.



Your revision is due by May 21, 2020.

To submit a revision, go to https://www.editorialmanager.com/jctres/ and log in as an Author. You will see a menu item call Submission Needing Revision. You will find your submission record there.

Yours sincerely

Michal Heger Editor-in-Chief Journal of Clinical and Translational Research

Reviewers' comments:

Reviewer #1: Interesting paper but introduction and discussion should be implemented with updated references. There are poor and not so updated references.

Reviewer #2: A good start.

An interesting case and technique.

I am concerned with the three Endodontic treatments required during your care of this patient. With a 5 year status post history of anterior dental trauma it is not uncommon to have multiple post trauma complications but you noted that all adjacent teeth tested vital during initial evaluation.

In my mind revitalization can only be verified by vitality tests or histology.

How much of the continued development is artifact due to increased bone density and film angulation variability? I am not familiar with the Image J software and it may already account for all of that.

Keep working and advancing the field, you and it show great promise!

Author's response

Reviewer	Comment	Response	Pg number and Line Number
1	Interesting paper but introduction and discussion should be implemented with	Modified introduction	Page number:2 Line number:1-7



	updated references. There are poor and not so updated references	References updated	Page number: 11-14
2	An interesting case and technique. I am concerned with the three Endodontic treatments required during your care of this patient. With a 5 year status post history of anterior dental trauma it is not uncommon to have multiple post trauma complications but you noted that all adjacent teeth tested vital during initial evaluation. In my mind revitalization can only be verified by vitality tests or histology.	On baseline vitality assessment, the adjacent teeth revealed positive (normal response). During follow up at 2 week, 2 nd ,3 rd and 6months the patient was asymptomatic. Only during 12 th month patient reported back with swelling and pain in #11,#12 and #22 region. Hence root canal treatment was initiated at 12 month follow up period.	Page number: 9 Line number:8- 18
	How much of the continued development is artifact due to increased bone density and film angulation variability? I am not familiar with the Image J software and it may already account for all of that. Keep working and advancing the field, you and it show great promise!	Intraoral periapical radiographs were taken using paralleling technique with Rinn xcp receptor holder at an constant positive angulation, kVP, mA and exposure time during each of the follow up period . ImageJ can display, edit, analyze, process, save, and print 8-bit color and grayscale, 16-bit integer, and 32-bit floating point images. It supports standard image processing functions such as logical and arithmetical operations between images, contrast manipulation, <u>convolution, Fourier analysis</u> , sharpening, <u>smoothing</u> , edge detection, and <u>median</u> <u>filtering</u> . Hence variations of image could be easily assessed using this software excluding the artefacts.	Page number: 5 Line number: 15-20



2nd Editorial decision 31-May-2020

Ref.: Ms. No. JCTRes-D-20-00015R1 Platelet Rich Fibrin and Collagen Matrix in Regeneration of Infected Necrotic Immature teeth. Journal of Clinical and Translational Research

Dear Dr R,

Reviewers have now commented on your paper. You will see that they are advising that you revise your manuscript. If you are prepared to undertake the work required, I would be pleased to reconsider my decision. It is imperative that you follow the advise of the reviewers and either confirm in the rebuttal letter that the comments were implemented or furnish reasons why you declined to revise.

For your guidance, reviewers' comments are appended below.

If you decide to revise the work, please submit a list of changes or a rebuttal against each point which is being raised when you submit the revised manuscript. Also, please ensure that the track changes function is switched on when implementing the revisions. This enables the reviewers to rapidly verify all changes made.

Your revision is due by Jun 30, 2020.

To submit a revision, go to https://www.editorialmanager.com/jctres/ and log in as an Author. You will see a menu item call Submission Needing Revision. You will find your submission record there.

Yours sincerely

Michal Heger Editor-in-Chief Journal of Clinical and Translational Research

Reviewers' comments:

Reviewer #1: Now the paper could be oublished as it stands

Reviewer #2: Upon reviewing for the second time most all of my initial comments have not been addressed or communicated that they have been considered.

Author's rebuttal

REBUTTAL LETTER REVIEWERS COMMENTS: **Reviewer #1: Now the paper could be published as it stands.** Thankyou.



Reviewer #2: Upon reviewing for the second time most all of my initial

comments have not been addressed or communicated that they have been considered. ANSWER: We have addressed these comments in manuscript earlier but maybe it was not clearly communicated to the reviewer and we have tried to interpret it clearly as much as possible as follows

Initial comments:

- 1) An interesting case and technique. I am concerned with the three Endodontic treatments required during your care of this patient. With a 5 year status post history of anterior dental trauma it is not uncommon to have multiple post trauma complications but you noted that all adjacent teeth tested vital during initial evaluation. ANSWER: Yes it is not uncommon to have multiple post trauma complications. That is why the adjacent teeth which was tested vital (positive) initially was nonvital at a later stage. And during the later stage (12th month follow up) as there was an abscess and apical root closure at the adjacent teeth and also due to the patients willingness to continue with root canal procedure because of economic reasons, we proceeded with root canal treatment in adjacent teeth. Addressed in Page number 6, Line number:7
- 2) In my mind revitalization can only be verified by vitality tests or histology.

ANSWER: Yes, it is true that revitalization can be verified by vitality tests or histology. We have truthfully said that vitality was not achieved after 2 years of follow-up. However we could appreciate radiographic changes such as increased root wall thickness and increased root length which are the good indicators of achieving vitality. Also we have quoted case reports which was done by Paryani et al,2013 and Suresh N et al, 2018. These case reports revealed that the revitalization was achieved after the second and third years of follow-up respectively. This was addressed in page number 9, Line number:13

3) How much of the continued development is artifact due to increased bone density and film angulation variability? I am not familiar with the Image J software and it may already account for all of that. Keep working and advancing the field, you and it show great promise!

The chances of occurrence of artefact and film angulation variability was eliminated as Intraoral periapical radiographs were taken using paralleling technique with Rinn xcp receptor holder at an constant positive angulation, kVP, mA and exposure time during each of the follow up period . (Addressed in Page number: 5, Line number: 15 in the previously revised manuscript)

Presence of Artefact could also be verified with Image J software by comparison as ImageJ can display, edit, analyze, process, save, and print 8-bit color and grayscale, 16-bit integer, and 32-bit floating point images. It supports standard image processing functions such as logical and arithmetical operations between images, contrast

manipulation, <u>convolution</u>, <u>Fourier analysis</u>, sharpening, <u>smoothing</u>, edge detection, and <u>median filtering</u>. Hence variations of image could be easily assessed using this software excluding the artefacts.

3rd Editorial decision 4-Jun-2020

Ref.: Ms. No. JCTRes-D-20-00015R2 Platelet Rich Fibrin and Collagen Matrix in Regeneration of Infected Necrotic Immature teeth.



Journal of Clinical and Translational Research

Dear Dr R,

Reviewers have now commented on your paper. You will see that they are advising that you revise your manuscript. If you are prepared to undertake the work required, I would be pleased to reconsider my decision.

For your guidance, reviewers' comments are appended below.

If you decide to revise the work, please submit a list of changes or a rebuttal against each point which is being raised when you submit the revised manuscript. Also, please ensure that the track changes function is switched on when implementing the revisions. This enables the reviewers to rapidly verify all changes made.

Your revision is due by Jul 04, 2020.

To submit a revision, go to https://www.editorialmanager.com/jctres/ and log in as an Author. You will see a menu item call Submission Needing Revision. You will find your submission record there.

Yours sincerely

Michal Heger Editor-in-Chief Journal of Clinical and Translational Research

Reviewers' comments:

Reviewer #3: 1. Please proofread the manuscript and improve the language. The manuscript is replete with grammar and spelling errors. I have taken the liberty to make numerous corrections, but I cannot do everything. I kindly ask you to make the revisions in the Word document attached to this email that contains my modifications. Please use the Oxford comma before 'and' and 'or' when summing up 3 or more items

(https://en.wikipedia.org/wiki/Serial_comma). Be consistent. There is no reason to write USA and U.S.A. in the same manuscript. There is no justifiable reason to put a space between '1 week' but no space between '1month.' In light of the previous numeric notation, what is the reason for writing "up to two to three years after initiation ...?" What is the reason for writing regenerative in "undergoing Regenerative endodontic ..." with a capital R? We cannot publish the paper if the writing is not brought to scientific standards and remains sloppy. Also, please use black font throughout the manuscript. If you cannot find a preferably native speaker to help with the language polishing, please contact the editorial office.

2. All products/reagents use must be accompanied with the name of the supplier, the city of the corporate headquarters, and (state and) country. Only identify the state when it concerns a city in the USA and use the abbreviation (e.g., Minnesota is MN).

3. Centrifugal forces are expressed as x g (times gravity). The RPM value is meaningless if there is no information on rotor radius provided.



4. Please refrain from abbreviating phrases if these occur less than 4 times in the manuscript. It takes away from easy readability. Also make sure that all abbreviations are written out at first mention.

There is additional documentation related to this decision letter. To access the file(s), please click the link below. You may also login to the system and click the 'View Attachments' link in the Action column.

Author's rebuttal

ANSWERS TO THE REVIEWER

REVIEWERS' COMMENTS:

Reviewer #3:

1. Please proofread the manuscript and improve the language. The manuscript is replete with grammar and spelling errors. I have taken the liberty to make numerous corrections, but I cannot do everything. I kindly ask you to make the revisions in the Word document attached to this email that contains my modifications. Please use the Oxford comma before 'and' and 'or' when summing up 3 or more items (https://en.wikipedia.org/wiki/Serial_comma). Be consistent. There is no reason to write USA and U.S.A. in the same manuscript. There is no justifiable reason to put a space between '1 week' but no space between '1month.' In light of the previous numeric notation, what is the reason for writing "up to two to three years after initiation ...?" What is the reason for writing regenerative in "undergoing Regenerative endodontic" with a capital R? We cannot publish the paper if the writing is not brought to scientific standards and remains sloppy. Also, please use black font throughout the manuscript. If you cannot find a preferably native speaker to help with the language polishing, please contact the editorial office. ANSWER: Thank you for pointing this out. The manuscript has been modified throughout and proofread with the help of digital writing tools and natural language processing apps.

2. All products/reagents use must be accompanied with the name of the supplier, the city of the corporate headquarters, and (state and) country. Only identify the state when it concerns a city in the USA and use the abbreviation (e.g., Minnesota is MN). ANSWER: Added. This has been addressed on pages 3, 4, 5, and 6.



3. Centrifugal forces are expressed as x g (times gravity). The RPM value is meaningless if there is no information on rotor radius provided. ANSWER: The Benchtop centrifugal machine used in this study had an automatic set in RPM and an automatic time set. However, we have modified and addressed the centrifugal forces as x g using the formula "g = (1.118×10^{-5}) R S²" Where g is the relative centrifugal force, R is the radius of the rotor in centimeters, and S is the speed of the centrifuge in revolutions per minute. Added on page no.5 and line number. 4

4. Please refrain from abbreviating phrases if these occur less than 4 times in the manuscript. It takes away from easy readability. Also make sure that all abbreviations are written out at first mention. ANSWER: Modified as suggested.

4th editorial response 8-Jun-2020

Ref.: Ms. No. JCTRes-D-20-00015R3 Platelet Rich Fibrin and Collagen Matrix in Regeneration of Infected Necrotic Immature teeth. Journal of Clinical and Translational Research

Dear authors,

I am pleased to inform you that your manuscript has been accepted for publication in the Journal of Clinical and Translational Research.

You will receive the proofs of your article shortly, which we kindly ask you to thoroughly review for any errors.

Thank you for submitting your work to JCTR.

Kindest regards,

Michal Heger Editor-in-Chief Journal of Clinical and Translational Research