
[AMP] Article Review Request

1 message

Fevito A. Obidos Jr. <acta-siteadmin@post.upm.edu.ph>
To: Tania Saskianti <tania-s@fkg.unair.ac.id>

Wed, Mar 29, 2023 at 7:44 AM

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Tania Saskianti:

This regards the manuscript "INDIVIDUAL NFATc1 AND RUNX2 EXPRESSION ON ORTHODONTIC TOOTH MOVEMENT WITH GRADUALLY INCREASING FORCE (Experimental Laboratory Research)," which is under consideration by Acta Medica Philippina.

Following the review of the previous version of the manuscript, the authors have now submitted a revised version of their paper. We would appreciate it if you could help evaluate it.

Please log into the journal web site by 2023-04-05 to indicate whether you will undertake the review or not, as well as to access the submission and to record your review and recommendation.

The review itself is due 2023-04-05.

Submission URL: <https://actamedicaphilippina.upm.edu.ph/index.php/acta/reviewer/submission?submissionId=6940&reviewId=8554&key=SnDd7J36>

Thank you for considering this request.

Fevito A. Obidos Jr.
Acta Medica Philippina, College of Medicine, University of the Philippines Manila
faobidos@up.edu.ph

"INDIVIDUAL NFATc1 AND RUNX2 EXPRESSION ON ORTHODONTIC TOOTH MOVEMENT WITH GRADUALLY INCREASING FORCE (Experimental Laboratory Research)"

Background: Orthodontic tooth movement occurs due to bone resorption and apposition on the pressure and strain side of the PDL. Orthodontic pressure initiates biochemical and cellular changes. The transcription factor associated with osteoclast differentiation is NFATc1 and the transcription factor associated with osteoblast differentiation is RUNX2. NFATc1 is the main regulator of osteoclast differentiation. RUNX2 is a multifunctional transcription factor that controls skeletal development by regulating the differentiation of chondrocytes, osteoblasts and the expression of many genes of extracellular matrix proteins during differentiation of chondrocytes and osteoblasts. **Objective:** This study aims to determine the difference in expression of NFATc1 and RUNX2 with gradually increasing force in rats' orthodontic movement. **Methods:** This type of research is a laboratory experimental study. The research design used in this research is the post-test control group design. Each group sample in this study amounted to four rats in 7 groups. The results were investigated by immunohistochemical methods. **Results:** Indicate a significant difference between the control and treatment groups at both NFATc1 and RUNX2 ($P > 0.05$) values. **Conclusion:** Gradually increasing force is good for orthodontic tooth movement. Applying 5 gr/mm² force (light force) has the lowest expression of NFATc1 and RUNX2 which has fewer osteoclasts and osteoblasts for tooth movement. Applying 10 gr/mm² force (optimum force) induced the expression of more NFATc1 and RUNX2. The high expression of NFATc1 and RUNX2 was seen in the gradually applying of 20 gr/mm² (heavy force), inducing a high formation of osteoclasts, osteoblasts and inhibiting hyalinization.

[AMP] Submission Review Reminder

1 message

Fevito A. Obidos Jr. <acta-siteadmin@post.upm.edu.ph>
To: Tania Saskianti <tania-s@fkg.unair.ac.id>

Tue, Apr 11, 2023 at 8:39 AM

Please Do not use REPLY in your email. Please access our website using your account details.

Tania Saskianti:

Just a gentle reminder of our request for your review of the submission, "INDIVIDUAL NFATc1 AND RUNX2 EXPRESSION ON ORTHODONTIC TOOTH MOVEMENT WITH GRADUALLY INCREASING FORCE (Experimental Laboratory Research)," for Acta Medica Philippina. We were hoping to have this review by 2023-04-05, and would be pleased to receive it as soon as you are able to prepare it.

Submission URL: <https://actamedicaphilippina.upm.edu.ph/index.php/acta/reviewer/submission?submissionId=6940&reviewId=8554&key=yM53xLuA>

Please confirm your ability to complete this vital contribution to the work of the journal. I look forward to hearing from you.

Kindly let us know if you need more time.

Thank you.

Fevito A. Obidos Jr.
Acta Medica Philippina, College of Medicine, University of the Philippines Manila
faobidos@up.edu.ph

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Review: *INDIVIDUAL NFATc1 AND RUNX2 EXPRESSION ON ORTHODONTIC TOOTH MOVEMENT WITH GRADUALLY INCREASING FORCE (Experimental Laboratory Research)*

1. Request
2. Guidelines
3. Download & Review
4. Completion

Request for Review

You have been selected as a potential reviewer of the following submission. Below is an overview of the submission, as well as the timeline for this review. We hope that you are able to participate.

Article Title

INDIVIDUAL NFATc1 AND RUNX2 EXPRESSION ON ORTHODONTIC TOOTH MOVEMENT WITH GRADUALLY INCREASING FORCE (Experimental Laboratory Research)

Abstract

Background: Orthodontic tooth movement occurs due to bone resorption and apposition on the pressure and strain side of the PDL. Orthodontic pressure initiates biochemical and cellular changes. The transcription factor associated with osteoclast differentiation is NFATc1 and the transcription factor associated with osteoblast differentiation is RUNX2. NFATc1 is the main regulator of osteoclast differentiation. RUNX2 is a multifunctional transcription factor that controls skeletal development by regulating the differentiation of chondrocytes, osteoblasts and the expression of many genes of extracellular matrix proteins during differentiation of chondrocytes and osteoblasts.

Objective: This study aims to determine the difference in expression of NFATc1 and RUNX2 with gradually increasing force in rats' orthodontic movement. **Methods:** This type of research is a laboratory experimental study. The research design used in this research is the post-test control group design. Each group sample in this study amounted to four rats in 7

Results: Indicate a significant difference between the control and treatment groups at both NFATc1 and RUNX2 ($P > 0.05$) values.

Conclusion: Gradually increasing force is good for orthodontic tooth movement. Applying 5 gr/mm² force (light force) has the lowest expression of NFATc1 and RUNX2 which has fewer osteoclasts and osteoblasts for tooth movement. Applying 10 gr/mm² force (optimum force) induced the expression of more NFATc1 and RUNX2. The high expression of NFATc1 and RUNX2 was seen in the gradually applying of 20 gr/mm² (heavy force), inducing a high formation of osteoclasts, osteoblasts and inhibiting hyalinization.

Review Type

Double-blind

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Review Schedule

2023-03-29

2023-04-05

2023-04-05

Editor's Request









*Response Due
Date*

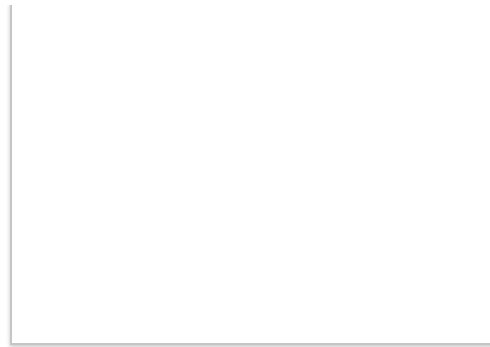
Review Due Date

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I may have competing interests (Specify below)

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Accept Review, Continue to Step #2

Decline Review Request

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Review: *INDIVIDUAL NFATc1 AND RUNX2 EXPRESSION ON ORTHODONTIC TOOTH MOVEMENT WITH GRADUALLY INCREASING FORCE (Experimental Laboratory Research)*

1. Request
2. Guidelines
3. Download & Review
4. Completion

Reviewer Guidelines

1. Kindly answer each item.
2. Sign your name as reviewer at the last page of the manuscript review form.
3. Your comments will be forwarded to the author for his or her due consideration after editorial review.
4. Please note that all papers given to peer-reviewers have not yet undergone copyediting or English language polishing/technical review. Please limit your comments on the quality and validity of the research work, as well as its strengths and weaknesses.
5. Deadline for your review is 14 days upon receipt.
6. [Useful Links For Peer Reviewers](#)

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