

## **Salivary nitrite content, cognition and power in Mixed Martial Arts fighters after rapid weight loss: a case study**

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*Corresponding author:*

*Nathalia F. Camarço*

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Handling editor:

Michal Heger

Rowan van Golen

*Department of Experimental Surgery, Academic Medical Center, University of Amsterdam, the Netherlands*

Review timeline:

Received: 31 March, 2016

Editorial decision: 1 May, 2016

Revision received: 15 May, 2016

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Revision received: 23 May, 2016

Editorial decision: 29 May, 2016

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1<sup>st</sup> editorial decision:

Date: 1-May-2016

Ref.: Ms. No. JCTRes-D-16-00011

Salivary nitrite content, cognition and power in Mixed Martial Arts fighters after rapid weight loss: case report.

Journal of Clinical and Translational Research

Dear Prof Camarço,

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 resubmit your work.

Your revision is due by May 15, 2016.

To submit a revision, go to <http://jctres.edmgr.com/> 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

\*\*\*\*\*Editor comments\*\*\*\*\*

Dear Nathalia, please consider revising the manuscript in accordance with the reviewer's suggestions below. I would like to draw your attention to several important points: 1) the differences in water and nutrient intake by the athletes should be addressed carefully, as these will likely have an impact on salivary nitrite content (please corroborate by citing appropriate literature to support your findings and arguments); 2) I am OK with you referencing a judo article as long as you explicitly state that this strategy is also employed by athletes in other types of combat sports; 3) language editing is certainly required, but we can help you with that after you have uploaded a proofread paper.

Thanks,

Michal.

\*\*\*\*\*Reviewer comments\*\*\*\*\*

Reviewer #1: Review of manuscript JCTRes-D-16-00011:

This manuscript investigated cognitive and physical aspects in MMA athletes undergoing rapid weight loss. I will present the following point-to-point my evaluation.

Title:

The title should be changed, it must be added the term case study

Abstract:

The abstract is not according the journal's guidelines, review the rules before the next submission. In addition, I recommend be added to the numerical results with the percentages.

Keywords:

Remove MMA.

Introduction:

In the first paragraph the authors state that: "Athletes of Mixed martial Arts (MMA) use strategies of acute dehydration to promote rapid weight loss (RWL)". However, the citation is a judo article.

The introduction is poorly described, how important to investigate weight loss in MMA? What

the study hypothesis? How rapid weight loss affects the performance of athletes?

I recommend adding the following article:

<http://link.springer.com/article/10.1007/s40279-016-0541-x>

Methods

I recommend create a Figure that shows the chart of procedures adopted in the study.

Results:

I believe that the results can be better analyzed. There is a great difference between the amount of nutrients and water ingested by athletes.

Discussion:

The first paragraph of the discussion should present the main results of the study.

Nutritional outcomes and muscle power were not discussed.

Tables and Figures:

Boards should be added Tables and Figure 2 does not need to be color.

General analyze

There are typos; I suggest the revision by native English. Moreover, there are aspects that are poorly explored; I suggest they be extended to the next version of the manuscript.

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Authors' rebuttal:

Date: 15-May-2016

Ref.: Ms. No. JCTRes-D-16-00011R1

Salivary nitrite content, cognition and power in Mixed Martial Arts fighters after rapid weight loss: case report.

Journal of Clinical and Translational Research

Dear Michal Heger,

I am re-submitting the revised version of the paper entitled "Salivary nitrite content, cognition and power in Mixed Martial Arts fighters after rapid weight loss: a case study" numbered JCTRes-D-16-00011 to the Journal of Clinical and Translational Research. We are sending the manuscript including figure captions and 3 figures in black and white. Authors declare no conflict of interests. First, we would like to thank the reviewers' comments. It is clear that all considerations were valuable and important. Moreover all suggestions made by the referees were accepted and are highlighted in the main text.

Best regards,

Jonato Prestes, PhD.

Catholic University of Brasilia

Brasília-DF, Brazil

E-mail: [jonatop@gmail.com](mailto:jonatop@gmail.com)

Reviewer(s)'Comments to Author:

Reviewer: 1

Comments to the Author

This manuscript investigated cognitive and physical aspects in MMA athletes undergoing rapid weight loss. I will present the following point-to-point my evaluation.

Title:

The title should be changed, it must be added the term case study

*Response: As suggested, the title was changed by Salivary nitrite content, cognition and power in Mixed Martial Arts fighters after rapid weight loss: a case study.*

Abstract:

The abstract is not according the journal's guidelines, review the rules before the next submission. In addition, I recommend be added to the numerical results with the percentages.

*Response: Thanks for the observations. The journal's standards guidelines were revised. Furthermore, the results in abstract are expressed in absolute values and percentage.*

Keywords:

Remove MMA.

*Response: keyword has been removed*

Introduction:

In the first paragraph the authors state that: "Athletes of Mixed martial Arts (MMA) use strategies of acute dehydration to promote rapid weight loss (RWL)". However, the citation is a judo article.

The introduction is poorly described, how important to investigate weight loss in MMA? What the study hypothesis? How rapid weight loss affects the performance of athletes? I recommend adding the following article:

<http://link.springer.com/article/10.1007/s40279-016-0541-x>

*Response: Thanks for the observations. The suggested article was added in the study. The introduction has been improved in order to meet the suggestions of the reviewers. The main questions of the reviewer were included throughout the introduction and they are marked in yellow.*

Methods

I recommend create a Figure that shows the chart of procedures adopted in the study.

*Response: Thank you for your consideration. A self-explanatory figure of the procedures has been added.*

Results:

I believe that the results can be better analyzed. There is a great difference between the amount of nutrients and water ingested by athletes.

*Response: Thanks. This modifications were incorporated.*

Discussion:

The first paragraph of the discussion should present the main results of the study.

*Response: Main results now appear in the beginning of discussion.*

Nutritional outcomes and muscle power were not discussed.

*Response: Thank you for this consideration. These outcomes are now discussed in the main text.*

Tables and Figures:

Boards should be added Tables and Figure 2 does not need to be color.

*Response: Tables boards were added and figures are in black and white.*

General analyze

There are typos; I suggest the revision by native English. Moreover, there are aspects that are poorly explored; I suggest they be extended to the next version of the manuscript.

*Response: The manuscript was sent to a native speaker for corrections. In addition, the entire text was expanded to enhance the mentioned topics.*

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2<sup>nd</sup> editorial decision:

Date: 16-May-2016

Ref.: Ms. No. JCTRes-D-16-00011R1

Salivary nitrite content, cognition and power in Mixed Martial Arts fighters after rapid weight loss: a case study

Journal of Clinical and Translational Research

Dear Prof Camarço,

Reviewers have submitted their critical appraisal of your paper. The editor's comments are appended below. Based on his comments and evaluation by the editorial board, your work was FOUND SUITABLE FOR PUBLICATION AFTER MINOR REVISION.

You do not have to prepare a separate rebuttal letter or point-by-point response. We kindly ask

you to implement the modifications and resubmit the paper.

Your revision is due by Jun 15, 2016.

To submit a revision, go to <http://jctres.edmgr.com/> 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:

Dear Dr. Camarco,

Thank you for submitting the revised version of your paper to JCTR.

I have carefully studied your revised paper, the rebuttal letter, and the implemented changes. You have done a good job addressing all the reviewer's comments and implementing all the requested changes. So I will not send the paper for re-evaluation by the reviewer.

However, before we can accept your study for publication in JCTR, I kindly ask you to make the following modifications.

1. The use of the English language is still subpar at times. I have no problem correcting this for you if you wish. Please let me know or otherwise I kindly ask you to proofread the manuscript again. The meticulousness with which you write your manuscript is reflective of the meticulousness with which you have conducted your study, and has a psychological bearing on the reader. Other than that, I find it important that the manuscripts we publish meet high quality standards. To help you, I have appended a document that I send to all my students.

Let me provide a few examples in just the abstract:

- "in large scale" should be "at a large scale" or, what is even better, "is extensively practiced..."
- follow up MMA athletes is improper syntax (should be followed MMA athletes if you choose to use this verb)
- "in the weigh-in moment" should read "at the weigh in moment"

2. There is an important discrepancy between nitric oxide (NO) and nitrite (NO<sub>2</sub>). Since you measured nitrite with the Griess assay, please report the data as nitrite. Extrapolations to nitric oxide are possible, but should be done with more cautionary language.

3. You claim in the rebuttal letter that a chart was included that delineates the study procedures. I am afraid that this figure was not uploaded and kindly request you to do so in the second

resubmission.

4. In the introduction the physiological link between salivary nitrite and performance should be briefly addressed. This was properly done in the discussion, but I want all readers of your paper to understand this parameter from the beginning. JCTR will send your article to MMA organizations to inform them about the implications of your study for their fighters. It is therefore important that 'laypersons' also grasp the essence of your work and do not get confused from the get-go.

5. In the second-to-last paragraph of the discussion (highlighted in yellow), please underscore that athlete 2 enjoyed a balanced diet before weigh in while athlete 1 did not, and that this may have accounted for better recovery of athlete 2. The use of the term "diet" should be operative here.

6. Please provide the raw data files of your figures. The figures that you provided are of rather poor quality. I would like to help you publish high-quality figures.

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.

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Date: 23-May-2016

Authors have responded to the language usage concerns, revised and resubmitted the manuscript.

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3<sup>rd</sup> editorial decision

Date: 29-May-2016

Ref.: Ms. No. JCTRRes-D-16-00011R2

Salivary nitrite content, cognition and power in Mixed Martial Arts fighters after rapid weight loss: a case study

Journal of Clinical and Translational Research

Dear Prof Camarço,

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

Comments from the editor and reviewers can be found below.

Thank you for submitting your work to JCTR.

Kindest regards,

Michal Heger

Editor-in-Chief

Journal of Clinical and Translational Research