

Does COVID-19 Influence the Sympathetic Regulation of Blood Pressure?

Jennifer Lynn Petterson, Breanna McPhee, Yanlin Wu, and Myles William O'Brien
DOI: 10.1113/JP282362

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The following individual(s) involved in review of this submission have agreed to reveal their identity: Abigail S.L. Stickford (Referee #1)

Review Timeline:

Submission Date:	23-Sep-2021
Editorial Decision:	04-Oct-2021
Revision Received:	04-Oct-2021
Accepted:	05-Oct-2021

Senior Editor: Harold Schultz

Reviewing Editor: Vaughan Macefield

Transaction Report:

(Note: With the exception of the correction of typographical or spelling errors that could be a source of ambiguity, letters and reports are not edited. Depending on transfer agreements, referee reports obtained elsewhere may or may not be included in this compilation. Referee reports are anonymous unless the Referee chooses to sign their reports.)

Dear Miss Petterson,

Re: JP-JC-2021-282362 "Does COVID-19 Influence the Sympathetic Regulation of Blood Pressure?" by Jennifer Lynn Petterson, Breanna McPhee, Yanlin Wu, and Myles William O'Brien

Thank you for submitting your Journal Club article to The Journal of Physiology. It has been assessed by a Reviewing Editor and a Referee and I am pleased to tell you that it is considered to be acceptable for publication following satisfactory revision.

Please advise your co-authors of this decision as soon as possible.

The reports are copied at the end of this email. Please address all of the points and incorporate all requested revisions, or explain in your Response to Referees why a change has not been made.

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I hope you will find the comments helpful and have no difficulty in revising your manuscript within 2 weeks.

Your revised article should be submitted online using the links in Author Tasks Link Not Available. This link is to the Corresponding Author's own account, if this will cause any problems when submitting the revised version please contact us.

Your revised submission should include:

- A Word file of the article file
- No more than 5 references
- A copy of the manuscript with the changes highlighted.

To create your 'Response to Referees' copy all the reports, including any comments from the Reviewing Editor into a Word, or similar, file and respond to each point in colour or CAPITALS and upload this when you submit your revision.

I look forward to receiving your revised submission.

Yours sincerely,

Harold D Schultz
Senior Editor
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EDITOR COMMENTS

Reviewing Editor:

Thank you for submitting your Journal Club article to The Journal of Physiology, which has been assessed by a reviewer and by myself, the Reviewing Editor. While the Reviewer is happy with your manuscript as is, I have a few minor recommendations which I will ask you to make prior to acceptance.

You state that "Microneurography has been used for over 70 years to record spontaneous efferent sympathetic nerve activity..." but this is not true. The first paper to report recordings of MSNA was published in 1968 [Hagbarth KE, Vallbo ÅB (1968) Pulse and respiratory grouping of sympathetic impulses in human muscle-nerves. *Acta Physiol Scand* 74:96-108], so 53 years ago. Indeed, in 2018 a series of papers was published in the *Journal of Neurophysiology* celebrating 50 years of microneurography [50 Years of Microneurography: Insights into Neural Mechanisms in Humans]. So, please change your statement to "over 50 years."

Please replace "illness related impacts" with "illness-related impacts"

Please change the statement "...increased sympathetic vasoconstrictor activity (via MSNA) and elevated parasympathetic cardiac activity (via heart rate variability)..." to "...increased sympathetic vasoconstrictor activity (measured directly as MSNA) and elevated parasympathetic cardiac activity (estimated indirectly from changes in heart rate variability)..." There is no direct evidence that HF HRV or RMSSD reflects cardiac parasympathetic drive, although most investigators believe this to be true.

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REFeree COMMENTS

Referee #1:

This is an excellent Journal Club submission. I have no concerns or other comments. It is well-written, factually accurate, and thought-provoking. Kudos to the authors!

END OF COMMENTS

Confidential Review

23-Sep-2021

Thank you for the opportunity to respond to the editor's and reviewer's comments for the Manuscript ID: JP-JC-2021-282362 entitled, "Does COVID-19 Influence the Sympathetic Regulation of Blood Pressure?". We are very appreciative of the feedback, and we would like to thank the editor and reviewer for their fast response and suggestions. We have addressed the comments below in **red font** and the accompanying changes are **highlighted** within the manuscript document.

Reviewing Editor:

You state that "Microneurography has been used for over 70 years to record spontaneous efferent sympathetic nerve activity..." but this is not true. The first paper to report recordings of MSNA was published in 1968 [Hagbarth KE, Vallbo ÅB (1968) Pulse and respiratory grouping of sympathetic impulses in human muscle-nerves. Acta Physiol Scand 74:96-108], so 53 years ago. Indeed, in 2018 a series of papers was published in the Journal of Neurophysiology celebrating 50 years of microneurography [50 Years of Microneurography: Insights into Neural Mechanisms in Humans]. So, please change your statement to "over 50 years."

Thank you for this. This should have said 50 years and not 70 years. We have changed it accordingly.

Please replace "illness related impacts" with "illness-related impacts"

This has been edited within the manuscript.

Please change the statement "...increased sympathetic vasoconstrictor activity (via MSNA) and elevated parasympathetic cardiac activity (via heart rate variability)..." to "...increased

sympathetic vasoconstrictor activity (measured directly as MSNA) and elevated parasympathetic cardiac activity (estimated indirectly from changes in heart rate variability)..." There is no direct evidence that HF HRV or RMSSD reflects cardiac parasympathetic drive, although most investigators believe this to be true.

The above suggestion has been incorporated into the manuscript.

Referee #1:

This is an excellent Journal Club submission. I have no concerns or other comments. It is well-written, factually accurate, and thought-provoking. Kudos to the authors!

Thank you for taking the time to read our journal club submission. It is appreciated.

Dear Miss Petterson,

Re: JP-JC-2021-282362R1 "Does COVID-19 Influence the Sympathetic Regulation of Blood Pressure?" by Jennifer Lynn Petterson
Breanna McPhee
Yanlin Wu
Myles William O'Brien

I am pleased to tell you that your Journal Club article has been accepted for publication in The Journal of Physiology.

NEW POLICY: In order to improve the transparency of its peer review process The Journal of Physiology publishes online as supporting information the peer review history of all articles accepted for publication. Readers will have access to decision letters, including all Editors' comments and referee reports, for each version of the manuscript and any author responses to peer review comments. Referees can decide whether or not they wish to be named on the peer review history document.

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Thank you for your contribution to The Journal of Physiology.

Yours sincerely,

Harold D Schultz
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Reviewing Editor comments:

Thank you for attending to my recommendations.

1st Confidential Review**04-Oct-2021**