

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Clinical Cases*

**Manuscript NO:** 76254

**Title:** Altered Heart Rate Variability and Pulse-wave Velocity after Spinal Cord Injury

**Provenance and peer review:** Unsolicited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 03497479

**Position:** Editorial Board

**Academic degree:** MD, PhD

**Professional title:** Associate Professor

**Reviewer's Country/Territory:** Croatia

**Author's Country/Territory:** Taiwan

**Manuscript submission date:** 2022-04-11

**Reviewer chosen by:** Dong-Mei Wang

**Reviewer accepted review:** 2022-05-17 11:54

**Reviewer performed review:** 2022-05-20 10:44

**Review time:** 2 Days and 22 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous

statements

Conflicts-of-Interest: [ ] Yes [Y] No

## SPECIFIC COMMENTS TO AUTHORS

I read with interest the article "Alterations in Both Heart Rate Variability and Pulse Wave Velocity in People with and without Spinal Cord Injury". The article has serious methodological shortcomings that need to be corrected before ev. acceptance for publication. Namely, a number of factors can affect heart rate variability (HRV) such as gender, age, associated diseases (hypertension, coronary heart disease, diabetes, etc.), use of various medications, time elapsed since SCI, etc. 1. The control group is very sparingly described. It needs to be described in detail, and it should be sex / age matched with the SCI group! and complementary to all other criteria listed above 2. Currently, there are two very heterogeneous groups, which can lead to bias, so the results are dubious and less valuable 3. There is a large standard deviation of the time elapsed since the appearance of SCI which can affect the results 4. In addition to the short term measurement of HRV, it would be good if its 24-hour measurement was done, because the results related to mean RR and SDNN would be more representative. 5. It is necessary to describe in a few sentences in more detail the concept of HRV with appropriate references (Eur Heart J 1996. Task force, etc.)

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Clinical Cases*

**Manuscript NO:** 76254

**Title:** Altered Heart Rate Variability and Pulse-wave Velocity after Spinal Cord Injury

**Provenance and peer review:** Unsolicited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 05067819

**Position:** Editorial Board

**Academic degree:** MD

**Professional title:** Academic Fellow, Assistant Professor, Surgeon

**Reviewer's Country/Territory:** Iran

**Author's Country/Territory:** Taiwan

**Manuscript submission date:** 2022-04-11

**Reviewer chosen by:** Dong-Mei Wang

**Reviewer accepted review:** 2022-05-25 14:09

**Reviewer performed review:** 2022-06-04 05:36

**Review time:** 9 Days and 15 Hours

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous

statements

Conflicts-of-Interest: [ ] Yes [Y] No

#### **SPECIFIC COMMENTS TO AUTHORS**

Dear authors Thank you for your work. Although it does not have new results, is interesting and valuable, and is well-written. It can be considered for publication after revision. The authors should explain the unfamiliar variables (parameters of heart rate variability and pulse wave velocity, 7-level scale vascular age, and so on) in a separate section. Considering the sympathetic and parasympathetic activity, are there any differences between healthy males and females? Two groups are not matched according to sex. Did this mismatch affect the results? As we know, the outcome after SCI in different spine levels significantly differed, especially between the cervical and other levels, and between cord injury and cauda equina injury. Why did not the authors analyze the results between subgroups (as they mentioned in the limitation section)? If it was not possible, why did they include SCI at the whole spine level? The mechanism and outcome of traumatic and nontraumatic SCI are deferred, the authors should separate and analyze the results between these two entities. Few grammatical errors need English editing. Best Regards

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Clinical Cases*

**Manuscript NO:** 76254

**Title:** Altered Heart Rate Variability and Pulse-wave Velocity after Spinal Cord Injury

**Provenance and peer review:** Unsolicited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 05455405

**Position:** Peer Reviewer

**Academic degree:** MD, PhD

**Professional title:** Associate Professor, Surgeon, Surgical Oncologist

**Reviewer's Country/Territory:** Russia

**Author's Country/Territory:** Taiwan

**Manuscript submission date:** 2022-04-11

**Reviewer chosen by:** Dong-Mei Wang

**Reviewer accepted review:** 2022-06-03 12:02

**Reviewer performed review:** 2022-06-09 20:54

**Review time:** 6 Days and 8 Hours

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input checked="" type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input checked="" type="checkbox"/> Rejection
<b>Re-review</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Peer-reviewer</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous

statements

Conflicts-of-Interest: [ ] Yes [Y] No

#### **SPECIFIC COMMENTS TO AUTHORS**

Dear editors and authors, the manuscript “Alterations in Both Heart Rate Variability and Pulse Wave Velocity in People with and without Spinal Cord Injury” requires a revision of the basic concept of the study. The data is heterogeneous and variable. The authors try to interpret the obtained data cross-section on heart rate variability and pulse wave velocity, and the general state of the cardiovascular system as a long-term course of traumatic spinal cord disease that has already taken place, which is incorrect in the absence of dynamic observation of the studied patients. In this case, the publication of the manuscript seems impossible. In addition, the correlations and dependencies found without comprehensive consideration of individual constitutional parameters and somatic status do not bear significant scientific novelty.