Reviewer's report

Title: High-frequency power of heart rate variability can predict the outcome of thoracic surgical patients with acute respiratory distress syndrome on admission to the intensive care unit: a prospective, single-centric, case-controlled study

Version: 1 Date: 27 Nov 2017

Reviewer: Fabian Dusse

Reviewer's report:

The authors are right that the methods regarding the Fourier analysis in HRV analysis has been described in the cited articles (Task Force of the European Society of Cardiology and the North American Society of Pacing and Electrophysiology). But, anyway, for clinicians not familiar with the method, and I expect the majority of anesthesiologists and intensivists are not, a brief explanation would be helpful to follow this interesting topic. Therefore I appreciate the addition of the paragraph to describe the method.

Comments:

1. P3 L23f.: The term "had lung or esophageal cancer surgery" is redundant in this sentence. I recommend restructuring the sentence, e.g. like as follows "Patients who had lung or esophageal cancer surgery were included either in the ARDS group if they developed ARDS after surgery or in the control group if they did not.

2. P4 L23: I recommend to change the term "a poor prognostic sign" into, e.g., "an indicator for poor prognosis", to make it less capable for misunderstanding.

3. P4 L23: I recommend replacing the term "patients including thoracic surgical patients" into "patients following thoracic surgery"

4. P9 L39: Here and in the entire manuscript: "nonsurvivors" and "non-survivors" are used inconsistently. I recommend using "non-survivors".
5. P15 L26: The revised paragraph in the manuscript differs from the one mentioned in the responses to the reviewers comments. Please define which version is the right one.

6. P16 L7: Please replaces "parameters" in "variables"

7. P17 L23: Typing error "underlying"

8. P19 L30: I recommend deleting the rest of the sentence ("because...") which sounds more like an excuse for not recording additional values. The explanation does not provide relevant information.

9. P20 L11: (see comment 3.) I recommend changing the sentence like as, e.g., "Increased vagal modulation might be an indicator for poor prognosis in critically ill patients" to make it less capable for misunderstanding.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics
Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal