Reviewer’s report

Title: Patterns of heart rate variability and cardiac autonomic modulations in controlled and uncontrolled asthmatic patients

Version: 3
Date: 30 July 2015

Reviewer: Gavin P Pinniger

Reviewer’s report:

The revised manuscript is an improvement from the original submission, and most of my concerns have been at least partially addressed. However some points still require further clarification and there remain (or have been introduced) some inconsistency in the presentation and interpretation of data.

1. The comparisons in age, BMI and MHR between groups are not presently consistently throughout the manuscript. For example, P7,L20 – age and BMI data are compared for AS and HS groups and reference is made to Figure 1, which presents the data as CA, UA and HS. The results should be presented in a format that is consistent with the statistical analyses that were performed. Also, MHR data are presented on P7 as mean (SD) whereas the figure appear to show the data as median + quartile. Again, the presentation of these data should be consistent with the statistical analyses.

2. P8,L1 - The statement that the “sprirometry data were well matched with the expected ventilator function” is not a sufficient description of the results. A short sentence or two describing the results in more detail (including results of statistical analysis) would be helpful to the reader even though you may expect the interpretation to be relatively straight forward.

3. P8, L16 – there is no Table 3.

4. Figure 1 should be accompanied by a suitable figure legend.

5. The words “poor”, “good”, “better” etc are constantly used to describe the quality of HRV. These descriptors are vague and subjective and should be replaced with more specific terms. An explanation of what you consider poor or good HRV would also be very helpful to include early in the introduction.

6. P6, L8. “< 15 or less” should be replaced with “< 15) or “15 or less”.

7. Numerous spelling and grammatical errors remain in the manuscript.

8. If the explanation for asthma associated changes in HR is RSA, then it would seem more appropriate to either monitor respiratory rate during HRV recording or perform HRV measurements with paced breathing. Such approaches should overcome the need to correct the data for variation in HR that may or may not be attributed to RSA. Regardless, a better explanation of asthma associated changes in HR and the rationale for correcting for HR should be included in the
Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests.