Author's response to reviews

Title: Comparison of the effect of LPS and PAM3 on ventilated lungs

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Author's response to reviews: see over
Responses to reviewers’ 2nd comments

The authors would like to thank the reviewers for instructive criticism. We revised the manuscript point by point according to the reviewers’ and editorial report. We hope that the manuscript will now be acceptable for publication in BMC Pulmonary Medicine.

Reviewer: Graeme Zosky

Reviewer’s report:

The authors have adequately addressed most of my comments however there are some points that still require clarification.

Compulsory revisions

I think there is a misinterpretation of what I meant by paralysis i.e. paralysis does not occur with ketamine and xylazine. In some studies an additional paralysing agent is used (usually pancuronium bromide) so that the mouse does not breath during the lung function measurements. The statement you have now included that refers to paralysis is not correct unless you used a paralysing agent. I also think there is an error in the doses of ketamine and xylazine that you quote – the mg/kg values you give cannot be correct (recommended dosages are usually around 100 mg/kg for ketamine)

The authors agree with the reviewer. We did not use a paralysing agent but the animals were deeply sedated as assessed by paw reflex testing. The statement referring to paralysis has been removed (page 4, line 6). The dosages of ketamine and xylazin have been corrected (page 4, line 6).

I am pleased to see that the additional parameters based on the forced oscillation technique have now been included in the manuscript. These data clearly demonstrate that the changes in total lung resistance reported were a result of changes in the peripheral airways (as indicated by changes in tissue damping). However, there is still a lack of detail regarding the procedures for measuring lung function i.e. there is no mention of the forced oscillation technique, the type of perturbation used (i.e. duration and frequency content) or the volume displacement of the measurement. This needs to be rectified.

Duration and frequency of perturbation have been included.
Can you please indicate in the “Statistics” section all of the tests that were used i.e. ANOVA and ANOVA on ranks. Also you need to indicate what test was used to compare values at the beginning and end of the experiment – was this simply a paired t-test?

To compare the values at the beginning and at the end of the experiment in a group a paired t test was used. An ANOVA on ranks was used for comparison between different groups (page 7, lines 2-10).

Minor essential revisions
Spelling of eosin in “histological measurements”
This has been corrected (page 5, line 18).

Reviewer: Rosalinda Sorrentino
Reviewer’s report:
No further revisions are required.

Editorial requests
Please be sure to include higher resolution figures.
Higher resolution has been provided.

Please could you structure your abstract according to the guidelines.
The abstract has been structured according to the guidelines.