Reviewer's report

Title: Effect of physical training on airway inflammation in bronchial asthma: a systematic review

Version: 3 Date: 12 February 2013

Reviewer: Michael Stickland

Reviewer's report:

This systematic review examined the effect of physical training on airway inflammation in asthma. There is increased interest at examining exercise training to improve asthma symptoms/management. Because of a variety of issues, the authors stated that there were no definite conclusions from their systematic review.

Major Compulsory Revisions

It is unclear how the authors came to some of their conclusions. Within the results the authors state ‘Yes, physical exercise may reduce airway inflammation’, and yet the supporting data look inconclusive. As an example, the authors conclude that exercise reduced CRP, and yet when looking at figure 2A, only 1 of 3 studies found a significant reduction in CRP compared to control. There is no summary plot of the aggregate data from the three studies, and therefore I do not see how the authors come to this conclusion.

At only 1 page, the discussion is insufficient. There is little discussion/interpretation of the findings. As an example, the authors found a heterogeneous response from exercise with respect to FeNO and PC20, and yet there was no attempt to further examine these data to determine if there might be an explanation for the heterogeneity.

Minor Essential Revisions

The introduction should be shortened. The readers of BMC pulmonary appreciate the health impact of asthma, and the introduction should be focused on the primary study question.

One issue that was not well detailed/discussed is the method of asthma diagnosis and how this may affect the results. The method of diagnosis should be included in the data table, and some discussion should be given as to the limitations of physician-diagnosed asthma, and how this may impact the results.

Within the study selection section the authors state that animal studies were included, then near the end of the section they state that they were removed without giving a justification. This is a bit unclear, and perhaps you can simply state at the beginning that all animal studies were removed.

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