Reviewer's report

Title: Samsoeum water extract attenuates allergic airway inflammation via modulation of Th1/Th2 cytokines and decrease of iNOS expression in asthmatic mice

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Reviewer: Kyung-Seop Ahn

Reviewer's report:

I read the article. I think your article addresses an interesting topic. However, I have some suggestion that I believe would help to improve the quality of the presentation of the paper.

Minor Essential Revisions:

1. Why were the two different doses of Samsoeum chosen? Was this done as part of a dose response study? However, several factor such as cytokines and IgE, was not observed the dose-response effect. Authors should described what could explain this result.

2. In figure 2, inflammatory cell count. Total cell count of Samsoeum treated groups is smaller than the normal control. These results cannot be understood and it has several problems. Particularly, the number of lymphocytes is very high in the normal control. Is it possible? Also, please explain why the numbers of total cells were much lower or higher than the sum of the subsets i.e eosinophils, macrophages, neutrophils and lymphocytes. Error bars for each parameter was incorrect. Please, check it.

3. In figure 5 and 6, histology and immunoblot. The results of histology and immunoblot were only described representative figure. So, these results need to quantitative analysis for each factor (inflammation, mucus production, protein expression).

4. The number of mice per group should be presented either in the M&M or in each of the figure legends.

5. It is already known that montelukast is used for reducing bronchoconstriction and inflammatoin by oral administration. And it is known that the usual dose of Montelukast in adults and teenagers is one 10 mg tablet taken orally a day and in children 6 to 14 years of age the usual dosage is one 5 mg a day. Further, other researcher used montelukast at doses of 1 mg/kg in mice model. However, in this study, authors administrated montelukast to mice at doses of 30 mg/kg once daily for 6 days. Authors used excessively large amounts of montelukast, compared with recommended dosage. The effect of montelukast at lower dose has to be examined.
6. The data were not immediately obvious from the histology slides. It may be helpful to readers to highlight the areas of interest in these slides via arrows or other visual aid.

7. Please provide the sensitivity of the kits used in this study.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.