Reviewer’s report

Title: Total Nasal Resistance among Sasang Constitutional Types: A Population-Based Study in Korea

Version: 3 Date: 1 June 2013

Reviewer: Junhee Lee

Reviewer’s report:

This paper reports the investigation of difference of the total nasal resistance among Sasang constitutional types. Its procedures were generally based on scientific methodologies and conducted with precision, and it was reported in an objective and logically sound manner. However, there remain some questions on parts of the manuscript that should be addressed with attentiveness:

1. There was significant difference in sex ratio among three constitutional groups. Generally, there are many differences in the life styles (especially smoking rate) and the physical traits. Although statistically the sex was taken into consideration as confounding factor, the statistical power was relatively weak. So, the stratified analysis of gender is more recommended.

2. In the statistical analysis section, it is mentioned that one-way analysis of variance (ANOVA) and ANCOVA were conducted. But, there are no explanations about the post hoc analysis or the multiple comparisons with the method for minimizing type # error. The null hypotheses of ANOVA and ANCOVA are that the means of several groups are all equal, so only by ANOVA or ANCOVA, the decisions such as “the TE type was older, heavier, and had a higher proportion of females and former smokers than those of the other types” and “ANCOVA revealed that the SY type had a significantly higher value of TNR than those of the TE and SE types at transnasal pressure of 100 Pa (P = 0.0017)” cannot be made (* Major Compulsory Revisions).

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.

Declaration of competing interests:

I declare that I have no competing interests.