Reviewer's report

Title: Response of the airways and autonomic nervous system to acid perfusion of the esophagus in patients with asthma: a laboratory study.

Version: 2 Date: 24 February 2013

Reviewer: Andras Rosztoczy

Reviewer's report:

Major comments:
1. My comment (major comment #4) concerning the asthma severity of the GERD positives and negatives has not been answered sufficiently. Authors summarized these data in table 2. If we perform a contingency table analysis (3 rows - mild intermittent, mild persistent, Moderate or severe persistent) and 2 columns – asthma without reflux, asthma with reflux) the result would be statistically different (p=0.0296), despite the relatively small number of the subjects. Please add this fact to the manuscript.

2. Furthermore (in the same table) some other parameters of the GERD negative and positive subgroups seem to be statistically different as well:
   a. FVC (% of predicted) mean±SD values are 114.6±4.6 and 121.0±3.3. This means p<0.0001.
   b. PEFR (% of predicted) mean±SD values are 54.0±2.2 and 58.0±2.2. This means p<0.0001.
   c. HR ratio mean±SE values are 1.2±0.04 and 1.1±0.03.- This means p=0.052
   Please add a column to this table showing the actual statistical differences between the studied subgroups.

3. Authors state, that during citric acid perfusion the mean FEV1 values were significantly decreased (table 4) in asthmatics. The mean ± SD values were 2.7±0.4 L, 2.7±0.4 L and 2.6±0.4 L respectively. Later (table 5) they show, that this is only valid for patients with concomitant reflux. In this latter table the “±values” are told to be SE-s, while they were SD-s in table 4. Please clarify! In contrast PEFR seems to be decreased in patients without concomitant reflux (table 5.). The p values should be added to the data in table 5. In my opinion, all of the observed changes are minimal and consequently clinically irrelevant.

The discussion should also be modified according to these points

Minor comments:

1. Authors used randomly standard deviation “SD” and standard “SE” in the results section of the manuscript. Please homologize them and use either “SD” or “SE” throughout the entire manuscript.
2. Following this decision please use either the format of “mean (xx)” or “mean±xx” throughout the whole manuscript.

3. In rows of asthma severity and asthma medication of Table 2, the percentages in the parenthesis are meaningless so they should be deleted.

4. FEV1 and PEFR data should be provided either in liter (L) or in (% of predicted). Please do not mix the two forms!

5. Please use the same number of decimals for the mean and the SD/SE values (eg: 102±12 or 5.0±0.2 or 0.88±0.10)!

Level of interest: An article of importance in its field

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.