Author's response to reviews

Title: Sweet taste sensitivity in pre-diabetics, diabetics and normoglycemic controls: a comparative cross sectional study.

Authors:

Sudharshani Wasalathanthri (sudharshaniw@gmail.com)
Priyadarshika Hettiarachchi (priyadarshikahett@gmail.com)
Shamini Prathapan (drpbshamini@yahoo.com)

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Author's response to reviews: see over
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Ms. Erica Cruz

BioMed Central Editorial

Dear Ms. Cruz

Thank you very much for the most valued comments from the reviewers. I have amended the manuscript taking in to consideration all comments by the reviewers. Point-by-point responses to the concerns of both reviewers are given below. I hope these comments have improved the quality of the article.

Thanking you

Best regards

Dr. Sudharshani Wasalathanthri

Corresponding author

Reviewer: M Y Pepino

Major compulsory revisions:

1. The statistical analysis was done as per the suggestion of the reviewer and the statistical analysis in the methods section (refer lines 181 – 187) and the findings in the results section (refer lines 231 – 237).
2. The findings were not changed with the new statistical analysis. Therefore, the conclusions and the abstract were edited according to reviewer suggestions.
3. The introduction was revised according to reviewer suggestions. References were included and the reference list was amended accordingly.
   a. Amended according to reviewer suggestions with correct references (refer line 77)
   b. Amended according to reviewer suggestions (refer lines 84 to 89)
4. The number of smokers in the sample was very low (n=10). The details and the implications are described in lines 175 – 177.

Minor essential revisions:

1. How diabetes and pre-diabetes status was defined is already included in the abstract – line 34
2. The two most extreme sucrose solutions were not tested for suprathreshold intensity ratings, but presented to the subjects for them to get an indication of the two ends of the scale. The reasons for removing the highest and lowest concentrations from the test are –
In the pilot study done on 30 subjects (10 diabetics, 10 pre-diabetics and 10 normoglycemics) all subjects rated the lowest sucrose concentration as ‘0’ and all except one rated the highest sucrose concentration as ‘100’.

In the pilot study we realized that the attention of the subjects to give correct ratings was more when the number of test solutions is limited to four. Since it was almost clear that the upper and lower extremes will not have a statistically significant difference, it was decided to test 4 solutions.

We justified our decision by evidence of suprathreshold intensity test performed with 4 test concentrations of sucrose (Pepino et al in Obesity 2010 May; 18(5): 959-965.)

3. Table 3 was replaced by a graph as suggested by the reviewer.

4. The revised manuscript was proof read by a native speaker as suggested by the reviewer.

Reviewer: George Kyriazis

Major revisions:

1. As per the ADA guidelines (position statement – Standards of Medical Care in Diabetes, 2012) the diagnosis of diabetes/pre-diabetes could be made by FPG (fasting plasma glucose) OR 2-h plasma glucose OR HbA1c levels. Therefore classification of subjects in this study was based on HbA1c levels. Fasting plasma glucose was not performed in these subjects.

2. Correlation tests were performed between the two sensitivity tests and HbA1c levels. Since there was no statistically significant correlation observed between variables, amendments to results and discussion (line 193 – 194 removed from original script) and conclusions were amended as suggested by the reviewer.

Minor revisions:

1. The sentences were amended and reference added (refer lines 84 – 86 and 252 - 257)

2. Sugar consumption in three groups were analyzed and the findings were included (refer lines 194 - 205). None of the subjects in this study consumed artificial sweetners.

3. With reference to the WHO BMI cut offs, none of our subjects were lean/underweight (BMI < 18.5). The mean BMI of pre-diabetic group was 25.4 (overweight (pre-obese category) according to WHO cut-off of 25 – 29.99) and that of diabetic group was 24.7 (upper limit of normal of 18.5 – 24.99). BMI was matched in the control group as it has been reported that taste thresholds are affected by body weight (Pepino et al in Obesity 2010 May; 18(5): 959-965.).

4. Subjects consuming medications affecting taste sensitivity (other than hypoglycemic agents and antihypertensives) were excluded – added to the discussion as suggested by the reviewer (discussed in lines 206 -212).