Author's response to reviews

Title: Presence of Helicobacter pylori in betel chewers and non betel chewers with and without oral cancers

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Author's response to reviews: see over
Reviewer's report

Helicobacter pylori status in patients with oral cancer, healthy betel chewers and healthy non-betel chewers: a case control study

Title: healthy non-betel chewers: a case control study

Version: 1 Date: 15 September 2006

Reviewer: Shan-Ling Hung

Reviewer's report:

General
In this study, the authors determined the levels of IgG against Helicobacter pylori in sera of patients with oral cancer, healthy betel chewers and healthy non-betel chewers. Detection of *H. pylori* in oral biopsies from oral cancer patients was also performed. There were only six subjects who were positive for IgG against *H. pylori*. The sample size of this study should be increased.

The sample size has been increased from 30 oral cancer patient to 53 patients and from 30 each of betel chewers and non-betel chewers to 60 each of either group.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. In the Abstract on page 3, the authors concluded that there was an increased prevalence of Helicobacter pylori in betel chewers when compared to non-betel chewers. On page 6, the authors also stated, “In this article we show that betel chewing predisposes to oral colonization by *H. pylori* but that there does not appear to be an association with oral cancer”. In fact, the results in this study revealed no statistically significant differences among oral cancer patients and non-cancer subjects with or without betel-chewing habit. Since the increase of sample size we have managed to show an increase in the statistical significance in the presence of *H. pylori* in betel chewers (with or without cancer) compared to non-betel chewers (Chi-square test p<0.05)

   In addition, only six subjects were detected positive for the IgG antibody against *H. pylori*. Only two subjects were positive for H. pylori in the oral biopsies. The differences in the prevalence observed among these three groups were very limited. Thus, the results are not convincing and the interpretation of the data may be erroneous. It is recommended that more subjects should be added. It will also be better to divide the patients with oral cancer into betel chewers and non-betel chewers.

   In addition to increasing the sample size we have now divided in groups in to four such as oral cancer betel chewers and non betel chewers ,healthy betel chewers and non betel chewers

2. This study examined the levels of IgG against *H. pylori*. The authors stated on page 3, “Betel chewing may predispose to oral colonization with *H. pylori* which could act as a reservoir for colonization in the stomach”. This study did not examine the oral colonization of non-cancer subjects. Colonization of *H. pylori* in the oral cavity may not lead to a systemic immune response against this pathogen. It is also possible that serological positive results for *H. pylori* were due to
The mere fact that *H. pylori* was statistically more in betel chewers when compared to non betel chewers shows the site of colonization of *H. pylori* as the oral cavity where changes have taken place due to betel chewing.

3. Although age, demographic data, oral hygienic practices and sleeping with quid in the mouth during night were also recorded, the results were not presented. Whether these three groups were comparable with respect to these parameters should be stated. Oral hygienic practices and sleeping with quid in the mouth during night are now recorded in the article. And now presented in Table 4 and in the results section of the article.

The numbers of subjects in Table 2 were too small for any valid conclusion to be drawn. The data for all of the study subjects should be presented. This table is now Table 4 and is modified to include other factors in betel chewing and its relation to *H. pylori*.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. The results in Table 1 and 2 were based on the serological results. Colonization by *H. pylori* was not demonstrated for healthy control subjects. Therefore, the headings of Table 1 and 2 should be corrected.

The tables have been modified as given below

Table 1 - Presence of *H. pylori* in patients with oral cancer (betel chewers/non betel chewers) compared to healthy control subjects (betel chewers/non betel chewers)

Table 2 - Presence of *H. pylori* in patients with oral cancer and healthy betel chewers

Table 3 Presence of *H. pylori* in Betel chewers and Non Betel chewers

2. For both tables, the numbers in the parentheses should be defined.

3. References should be added for the methods used in this study. The sensitive and specificity for detecting IgG against *H. pylori* and the pathogen in oral biopsies should be described. Sensitivity and specificity defined.

5. On page 7, line 3 from the bottom: “Twenty four (67%) of the oral cancer patients were betel chewer….”. Should it be 80% (24/30)? These have now changed

Discretionary Revisions (which the author can choose to ignore)
Unable to decide on acceptance or rejection until the authors have responded What next?: to the major compulsory revisions

Level of interest: An article of limited interest
Quality of written English: Needs some language corrections before being published
Statistical review: No
Declaration of competing interests:
I declare that I have no competing interests.

Reviewer's report
Helicobacter pylori status in patients with oral cancer, healthy betel chewers and healthy non-betel chewers: a case control study
Title: healthy non-betel chewers: a case control study
Version: 1 Date: 20 September 2006
Reviewer: Akio Tanaka
Reviewer's report:
General
The number of reported cases is too small for a control case study. There should be at least 50 cases for each group for statistical analysis. The sample size has been increased from 30 oral cancer patient to 53 patients and from 30 each of betel chewers and non-betel chewers to 60 each of either group.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1. Although the authors classified subjects into three groups; oral cancer patients, healthy betel chewers, and healthy non-betel chewers, four groups are needed. Oral cancers should be classified into betel chewers (+) and H. pylori (+), betel chewers (+) and H. pylori (-), betel chewers (-) and H. pylori (+) and betel chewers (-) and H. pylori (-). Also, the healthy groups should be classified into the four groups: betel chewers (+) and H. pylori (+), betel chewers (+) and H. pylori (-), betel chewers (-) and H. pylori (+), and betel chewers (-) and H. pylori (-). Discussion should use data classified into these four groups.

In addition to increasing the sample size we have now divided in groups in to four such as oral cancer betel chewers and non betel chewers, healthy betel chewers and non betel chewers
2. The title should be changed slightly as it does not accurately reflect the contents of the manuscript. For example, perhaps the title should be Presence of H. pylori in betel chewers and non-betel chewers with and without oral cancers.  
Title has been changed as suggested

3. Statistical data should be described in the abstract. It is now described in the abstract

4. The results described in the abstract do not seem to match those of the paper. The abstract should be changed. Has been changed

5. p10L16: The numerical value 87.5% should be described in the Results these values have now changed

6. The contents should not be itemized in the Discussion.

7. Although comments from the references are cited in the Discussion, there is no mention of how the results from the references correlate with your results. This has been discussed

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

The tables have been modified as given below

Table 1 - Presence of H. pylori in patients with oral cancer (betel chewers/non betel chewers) compared to healthy control subjects (betel chewers/non betel chewers)

Table 2- Presence of H.pylori in patients with oral cancer and healthy betel

Table 3 Presence of H. pylori in Betel chewers and Non Betel chewers

The below details are now all changed with addition of samples

1. p6L4: Details should be given about the gender and ages of the 90 subjects.
2. p7L18: Is the number of 67% correct?
3. p7L19: What does (20) mean?
4. p10L9: Is the spelling of Gebera correct? It has been corrected
5. p10L16: The numerical value 87.5% should be described in the Results.
6. p11L10: Is 10% correct? Five subjects were positive for H. pylori in the betel chewers, which included 24 who had oral cancers and 30 who were healthy betel chewers.
7. p11L11: Is 2% correct? One subject was positive for H. pylori in the non-betel chewers, which included 6 who had oral cancers and 30 who were healthy non-betel chewers without oral cancer.
8. The numerical values and percentages are incorrect in Table 2.

Discretionary Revisions (which the author can choose to ignore)
1. In the conclusion of the abstract, the authors mentioned that “Betel chewing may predispose to oral colonization with H. Pylori which could act as a reservoir for colonization in the stomach.” However, the same patients were not tested for H. pylori. Therefore, the results do not seem to lead to the stated conclusion.

Unable to decide on acceptance or rejection until the authors have responded What next?: to the major compulsory revisions

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

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests:
I declare that I have no competing interests.