Author's response to reviews

Title: Presence of Helicobacter pylori in betel chewers and non betel chewers with and with out oral cancers

Authors:

Neluka Fernando (fernando_neluka@yahoo.com)
Gnanapragasam Jayakumar (kumarasid@yahoo.com)
Naomal Perera: (nmap@slt.net.lk)
Indranee Amarasingha (iyamarasinghe@yahoo.com)
John Holton (john.holton@uclh.org)
Fahra Meedin (fahra_m@hotmail.com)

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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

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.

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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
colonization of H. pylori in other parts of the body. The authors should perform experiments to detect H. pylori in dental plaque or saliva in non-cancer subjects in order to understand oral colonization of this pathogen.

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*.

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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)

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

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.