Author's response to reviews

Title: Helicobacter pylori Infection and its Association with Anemia among Adult Dyspeptic Patients Attending Butajira Hospital, Ethiopia

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Version: 4 Date: 27 October 2014

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

Title: Helicobacter pylori Infection and its Association with Anemia among Dyspeptic Patients Attending Butajira Hospital, Ethiopia

Version: 3 Date: 27 September 2014

Reviewer: Ayele Argaw

Reviewer's report:

Major Compulsory Revisions:

1. Title: Since your study population are adult person (>18), your title has be modified indicating your study subjects age level and the study region like: “Helicobacter pylori Infection and its Association with Anemia among Adult Dyspeptic Patients Attending Butajira Hospital, SNNP Region Ethiopia”

   The title is corrected as commented

2. Abstract: your conclusion part doesn’t address your study aim as well your study result.

   Please rewrite your abstract conclusion exactly in line with your study aim and results. “The association between H. pylori infection with anemia need to be investigated in cohort type studies that can demonstrate a real cause and effect relationship” I suggest you to write it as a methodological limitation of your study.

   This was also accepted and modifications were made

3. Materials and Methods:

   Please indicate what major clinical indicators had you been used to identify dyspeptic patients, meaning what inclusions and exclusions criteria you had used to select the study subjects or indicate which guideline used to identify the study subjects at least clinically
The inclusion and exclusion criteria used is now incorporated under “sample size and sampling technique section” as “All adult (age ≥18 years) patients presented with dyspepsia complaint were included in the study. Among those patients who were voluntary to participate in the study, those who had any surgery and blood donation, previous stomach or small bowel surgery, those who took treatment for *H. pylori* within the last three month, and pregnant women excluded. The patients were excluded, due to any of the exclusion criteria, from the study following critical review of their medical charts.”

- Address also your study subjects are adults (age level)

This is also now indicated

4. Result:

- Modify title 3.1 as , “Sociodemographic characteristics of the study participants” characteristics alone is a vague please also modify this throughout the manuscript

  Characteristics alone seem vague but also it is not only about sociodemographic characteristics. There are also behavioral and physical characteristics in that section of the result. So if better we modified it as “*sociodemographic, behavioral and physical characteristics of the study participants*”

- A. lumbricoids and Hookworm”. Since they are not listed in your table better to remove them or rephrase your sentence

  The statement was modified and A. lumbricoids and Hookworm are deleted.

- I strongly recommend you to do the multivariate logistic regression analysis to really talk about the association of the H. Pylori infection with anemia, since you have a lot of well known co-factors as well confounders in your study. Moreover, there is no table in your
manuscript that shows what you write in the result part as well using only $X^2$ test is not sufficient to demonstrate the association of anemia with H. Pylori in your study, especial in the presence of other well known anemia risk factors like intestinal parasites, diet, BMI, family income. My suggestion is either do multivariate logistic regression analysis (which is best) or modify your title as well your study question (aim). For example you can modify the title like “Anemia parameters variation and associated risk factors of Helicobacter pylori infection among Adult Dyspeptic Patients Attending Butajira Hospital, SNNP Region Ethiopia. Then you can say in this study considering the high frequency of anemia, X2 result and anemia parameters variations we can assume there might be a link between H. Pylori infection and occurrence of anemia. Similarly, in other studies….. (write it in your discussion part)

We agreed with the comment. But the anemia was independently treated for its association with H.pylori infection. So we add another table that shows the association between anemia and H.pylori infection. Regarding the title we can manage to modify that but still we feel that it will not describe the expected association.

5. Discussion:

- Rewrite paragraphs that discuses on smoking habit (line 193-197) and intestinal parasite infection (reconsider your references) they are not explanatory

We have seen the references and they are placed to compare our study and reports from other areas. But, as explained there are controversies to give explanations to the differences which need a cohort type of study.
- Regarding the paragraph that discusses occurrence of anemia consider the above comments I gave and write it as one paragraph merging with your anemia/hematological parameters findings.

  Modification was made as per the given comment

**Minor Essential Revisions**

- Please try to look over and correct all typographical errors throughout your manuscripts

  The manuscript is typographically edited
Major deficiencies:

1. If this study is planned as prospective manner, the authors should state in the text.

   The study was a cross sectional prospective study and this is indicated in the “study design and study period section”

2. Exclusion criteria need to be clarification

   As per the given comment the inclusion and exclusion criteria are included under “sample size and sampling technique” section as “All adult (age ≥18 years) patients presented with dyspepsia complaint were included in the study. Among those patients who were voluntary to participate in the study, those who had any surgery and blood donation, previous stomach or small bowel surgery, those who took treatment for H. pylori within the last three month, and pregnant women excluded. The patients were excluded, due to any of the exclusion criteria, from the study following critical review of their medical charts.”

3. A reliability test and factor analysis showing that the questionnaire is reliable and valid would increase the power of analysis.

   We accept this, but we don’t perform reliability test and factor analysis. On the other hand we have tested the questionnaire in 5% of the study population outside from the study area and made appropriate modification before the actual data collection. We indicated this under “2.4.1. General characteristics of the study participants”

4. There is no sufficient data for patient characteristics showing basic hematological analysis
We have the data on total WBC count (not differential) and total platelet count, but we believe that red cell parameters are enough for this study. If including total WBC and PLT is vital we can add that.

5. – etc. tests for exclusion of bleeding, and hemolysis are needed.

We didn’t perform tests for bleeding and hemolysis due to lack of laboratory facility to do these tests.