Reviewer's report

Title: Short term micronutrient-antioxidant supplementation has no impact on gastric atrophy in Zambian adults: retrospective analysis of a randomised controlled trial

Version: 2 Date: 18 February 2014

Reviewer: Yutaka Yamaji

Reviewer's report:

This study is a sub-analysis of a previous randomized controlled trial and aimed to investigate the effect of micronutrient-antioxidant supplementation on prevention of gastric atrophy.

1. The primary outcome of the original randomized trial should be presented.

2. H. pylori is a major factor for gastric atrophy and gastric cancer development. The eradication of H. pylori is the most promising strategy to prevent them. The eradication of H. pylori before or during the study should be presented. The strategy of the micronutrient-antioxidant supplementation should also be discussed in comparison with H. pylori eradication strategy.

3. The low prevalence of gastric atrophy irrespective of the high prevalence of H. pylori infection in this study should be discussed. Young age, low prevalence of Cag-A positive species, or recent eradication might be involved.

4. Please show each pepsinogen I and II level and I/II ratio, before and after the treatment, if the data are available. The difference in the changes of pepsinogen levels might be found between treatment and placebo groups. In addition, these data among younger generation are scarce and interesting.

5. Pepsinogen level is known to be affected by acid suppressors or renal failure, which should be presented.

6. The odds ratio of “0.28” for age over 40 years in Table 4 seems to be miswritten. Please check.

7. As the author discussed, the study period seems to be too short to investigate the effect on gastric atrophy. The last conclusion by the authors could be modified.

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, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:

I declare that I have no competing interests.