Reviewer’s report

Title: Gastric Bacterial Flora in Patients Harbouring Helicobacter pylori With or Without Chronic Dyspepsia: Analysis with Matrix-assisted Laser Desorption Ionization Time-of-Flight Mass Spectroscopy

Version: 0 Date: 03 Dec 2017

Reviewer: Rita Busuttil

Reviewer’s report:

In this manuscript the authors seek to identify the different gut microbiota present in H. pylori infected patients with and without concurrent dyspepsia. The premise itself is not novel but the methodology/strategy is. It does however seem that the results section is extremely brief and that the authors have missed the opportunity to further refine their analysis.

1. In the introduction the authors describe a longitudinal study that found that incidence of GC is decreased in patients who have had an unsuccessful course of treatment to eradicate H. pylori. They propose that this might be due to successful eradication, during treatment of non-H. pylori bacteria that might contribute to the development of GC. Is it also possible that treatment to eradicate H. pylori may be specifically eradicating pathogenic strains?

2. Table 1: Staphylococcus percentage. Please check calculations- 19/21 patients is not 42.8%

3. Also Table 1- make sure numbers are rounded correctly. Example Micrococcus 1 patient of 21= 4.8%

4. The results section is very brief and the authors have missed an opportunity to perform a more detailed analysis of their findings and thus several questions remained unanswered:

   a. Are the bacterial counts different in patients with and without dyspepsia?

   b. It appears the authors did not analyse strains of H.pylori? Why not?

   c. Were there differences in the types of bacteria found between men and women?

   d. It appears that the authors did not separately analyse the bacterial contribution separately in the antrum and body specimens. This decision was based on a previous publication by Bik et al. In the same publication these Bik et al found no difference in H. pylori in bacterial diversity. Given that the current authors hypothesised that there IS a difference it would have made more sense to analyse these independently. Can the authors screen a small number of additional patients to either prove or refute this?
e. What is the distribution of the microflora amongst individuals? Did some patients have much more representation than others?

f. Findings in the non-dyspeptic groups analysed in terms of their clinical indications? Why not?

5. Did the authors explore potential pathogenicity of the bacterial types? This should also be mentioned in the discussion?

6. Can the authors clarify what they mean by colony character study Pg 9 line 4.

7. Why is table 2 not represented in terms of percentages?

8. Page 12 lines 28-40 appear to be duplicate sentences with the same information

9. Can the authors comment on the future clinical ramifications of this work?

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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Please indicate the quality of language in the manuscript:

Acceptable

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