Reviewer’s report

Title: Genotypic determination of resistance and heteroresistance to clarithromycin in Helicobacter pylori isolates from antrum and corpus of Colombian symptomatic patients

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Reviewer: Marja Liisa Hänninen

Reviewer’s report:

The authors studied genetic CLA resistance among Colombian symptomatic patients with described demographic background. Both corpus and antrum isolates were studied from 126 paired H. pylori isolates. In addition the isolates were studied using RAPD for genetic similarities of corpus and antrum isolates. The patient data is relevant and contains data on patients. This is the strength of the manuscript.

Genetic resistance to CLA was appr. 38%. This high level of genetic CLA resistance has been found in several other studies as well (e.g. Francesco et al. JAC 2010). Usually phenotypic resistance is much lower than genetic resistance. The authors analysed not phenotypic resistance (MIC). This is a clear weakness of the study. Several previous studies have shown that among those patients having phenotypic resistance to CLA a low eradication rate with typical triple therapy is found (H. pylori is resistant). In opposite, the eradication rate among patients having only genetic mutations in 23rRNA gene but susceptible in phenotypic tests the eradication rate is high (H. pylori is susceptible). These evidences mean that the conclusions of the authors on consequences of their results on therapy are too strong and are not based on the results presented. I suggest the authors include MIC data or the isolates in the manuscript. This is important and needed for interpretations of the results.

Other comments.

The language needs a total revision to improve English and make text better understandable.

The gene you studied was 16 rRNA gene.

Discussion needs a total revision. Too long and plenty of on discussion on topics were not relevant regarding the aims and results.

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 recommend additional statistical review

**Quality of written English**
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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