Reviewer's report

Title: Accuracy of endoscopic diagnosis of Helicobacter pylori infection according to level of endoscopic experience and the effect of training.

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Reviewer: Masaaki Kobayashi

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Major Compulsory Revisions

The authors identified the diagnostic yield of endoscopy for H. pylori infection at various endoscopist career levels, and concluded that the diagnostic yield was high for H. pylori-uninfected cases, but was low for H. pylori-eradicated cases. It is interesting and important, but there are quite number of problems. Consideration and description are still insufficient.

1. This study included 21 H. pylori-eradicated cases. The duration after eradication and the degree of mucosal atrophy and metaplasia should be described. Definitely the diagnostic yield was low for H. pylori-eradicated cases. It is correlated with recovery of mucosal atrophy and metaplasia as well as disappearance of inflammation, which are various according to the duration after eradication.

2. In this study, 11 distinctive endoscopic findings related to H. pylori infection status (uninfected, infected, and eradicated) were used for analysis. However, the authors selected six photos of specific sites of the stomach in each case, and endoscopic findings were then evaluated. The finding of fundic gland polyp, xanthoma, and motteled patchy erythema were local. The authors selected photos which showed these local findings?

3. The authors concluded that accuracy was low in beginners but improved after two years of training. Extraction of endoscopic findings for the diagnosis of H. pylori infection status appears to be useful, and the beneficial effects can be enhanced by training. However, a significant increase was confirmed in diagnostic yield of H. pylori-uninfected (p<0.05) and H. pylori-eradicated (p<0.05) in beginner 1 only. In contrast, beginner 2 had high accuracy similar to senior endoscopist before training in diagnostic yield of H. pylori-uninfected and H. pylori-eradicated. If the training effect would be emphasized, more beginners’ data should be evaluated.

4. I am very interesting in differences of clinicopathological findings between correct and incorrect cases after successful eradication. The authors analyzed three endoscopic biopsy specimens taken from the greater curvature of the upper gastric body, angulus, and antrum. Is there a correlation of histological evidence with the diagnostic yield?
5. Patient characteristics were showed 28 were H. pylori-uninfected, 28 were infected, and 21 were –eradicated. Were there any cases without eradication history, but negative for H. pylori or only low level of antibody?

6. Regular arrangement of collecting venules (RAC) is defined as a finding based on magnifying endoscopy. This study was performed using a high resolution videoendoscope without magnification.

7. Table 1 showed mean accuracy of 6 physicians for “all physicians”? The percentages in parenthesis mean 95% CI of diagnostic yield? Table 3 showed mean kappa values of 6 physicians for “all physicians”?

8. “Olympus Co.” had better be changed to “Olympus Medical Systems”.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.