Histopathological Diagnosis of Helicobacter pylori: Influencing Factors

Sir,

I read the article by Iqbal et al. published in JCPSP 2013, Vol. 23 (11): 784-786 with great interest.1 The authors aimed to make a comparison between serology and histology for detection of Helicobacter (H.) pylori infection. Among the 50 study subjects, 30 (60%) subjects were found positive for H. pylori infection with serological testing. Twenty-five (50%) subjects were identified positive for H. Pylori infection with histopathological diagnosis. Among 30 seropositive subjects, 5 subjects found no evidence of H. pylori infection with histological evaluation. As a result, the authors reported a substantial agreement between serology and histopathology to detect the H. pylori infection (Cohen’s Kappa coefficient, 0.72). I appreciate the efforts of the authors but some points need to be clarified before making a judgement about the results of the study.

In patients with atrophic gastritis, the diagnosis of active H. pylori infection is difficult. During the progression course of atrophy, the density of H. pylori in the stomach mucosa decreases, and during the late stages of atrophy the infection may completely disappear.2 The density of H. pylori colonization may significantly influence test results. Additionally, the endoscopic diagnosis of H. pylori infection in patients with bleeding or perforated duodenal ulcers is limited by a decreased sensitivity in standard invasive tests, rapid urease test and histology.3

The prepyloric antrum has been the preferred site of biopsy. The sensitivity of distal antral biopsy was 96 - 97% and the sensitivity of two biopsies from virtually anywhere in the stomach was 100%.4 The staining technique used for the identification of H. pylori is as important as the site and number of biopsies. For example sole reliance on haematoxylin and eosin when the density of H. pylori is low, is unwise and giemsa staining may improve the diagnostic accuracy in these circumstances.3

Considering the data presented above I would like to ask the authors of the present series as to how many biopsies were obtained and what was the gastric site of diagnosis? What were the endoscopic diagnosis in these patients? Which stains were used for the histopathological diagnosis of H. pylori? Was there any clinical parameter that could influence the results of the histopathological evaluation, e.g. previous H. pylori treatment or recent use of proton pump inhibitor?

I think the answers to these questions would improve the power of this study.

REFERENCES


Agreement Between Serology and Histology for Detection of Helicobacter pylori Infection

Sir,

We read the recent report “A substantial agreement found between serology and histopathology results to detect the Helicobacter pylori infection” by Iqbal et al. with reservation. Fifty subjects were included by non-probability purposive sampling from laboratory data who had serological testing of H. pylori IgG antibody, prior to histological evaluation of endoscopic gastric or/and duodenal biopsies. Thirty (60%) subjects were found positive for H. pylori infection with serological testing. However, 25 (50%) subjects were identified positive for H. pylori with histopathological diagnosis. Among 30 seropositive subjects, 5 subjects found no evidence of H. pylori infection with histological evaluation. Authors concluded that “serology assesses the presence of H. pylori in the stomach even when the bacteria are irregularly distributed on the gastric mucosa and may be missed on taking biopsy”.

Ibrahim Koral Onal
Department of Gastroenterology, Ankara Oncology Education and Research Hospital, Gastroenterology Unit, Ankara, Turkey.
Correspondence: Dr. Ibrahim Koral Onal, Mehmet Akif Ersoy Mahallesi 13. Cadde No. 56, Yenimahalle/Ankara PC:06200, Turkey.
E-mail: koralonal@yahoo.com
Received: November 11, 2013; Accepted: May 08, 2014.