Editorial

H. Pylori: Does Co-Morbidity Affect the Prevalence?

_Helicobacter pylori_ is a spiral bacterium which resides in the lumen of the stomach. It was rediscovered by Warren and Marshall in 1983. Since then there have been major changes in the understanding and treatment of peptic ulcer disease.

The bacterium is most often found in the antrum of the stomach, residing on the surface and at the foveolar regions of the gastric mucosa, close to intercellular junctions. The presence of these bacteria provokes an intense polymorph neutrophil infiltration.

With persisting infection, acute gastritis becomes chronic with an increase in lymphocytes and plasma cells in the lamina propria. Chronic gastritis may involve the antrum or may spread to the whole of the stomach, a pattern more commonly seen in developing countries.

Alone, or in combination with genetic or other environmental factors, some individuals may progress to atrophic gastritis with loss of glandular component of the gastric mucosa. It is worth noting that, on a world scale, a far greater number of cases of gastric atrophy are as a result of this infective process than those caused by autoimmune gastritis (previously, labeled type A, associated with pernicious anemia).

There is a marked difference in the prevalence of _H. pylori_ between developed and developing countries. In the developed world with high socioeconomic status, the prevalence of _H. pylori_ is low ranging between 15% and 54% in the general population.(1)

In the developing world with low socioeconomic status, the prevalence of _H. pylori_ is high ranging from around 70% in Asia and south America up to 85% in Africa. Infection in these countries occurs at an early age(1,2).

_H. pylori_ is associated with a number of diseases causing dyspepsia in both developed and developing countries. In developing countries _H. pylori_ is found in 95% of duodenal ulcers, 67-85% of gastric ulcers and there is an attributable risk to gastric cancer in 50% of cases(3). In Kenya, all cases of peptic ulcer had evidence of _H. pylori_, while dyspeptic patients with normal mucosa on endoscopy had _H. pylori_ in 80.5% of cases. The evidence of _H. pylori_ in gastric cancer cases was very low, 25% of cases(3). It is now well established that infection with _H. pylori_ is the most important cause of peptic ulcer disease(4,5) and that successful eradication of this organism markedly reduces the rate of ulcer relapse.

The prevalence of _H. pylori_ in other conditions have also been described. The prevalence of _H. pylori_ was found to be low in inflammatory bowel disease compared to controls. The prevalence was even lower in Crohn’s disease than in ulcerative colitis(6). It has been found that the prevalence of _H. pylori_ in HIV/AIDS patients is lower than in HIV-negative patients. Marano et al.(7) in America found that the prevalence of _H. pylori_ in AIDS patients with histologic chronic active gastritis was much lower than the prevalence previously reported for HIV-negative patients with similar pathology. Vaira et al.(8) from Italy also found that _H. pylori_ prevalence in HIV-1 positive residents was lower than in HIV-1 negative residents. However, Batten et al.(9) did not find a difference in the prevalence of _H. pylori_ between AIDS/ARC patients and age matched controls. This led them to postulate that cell-mediated deficiency does not appear to increase the risk of infection with _H. pylori_. Fabris et al.(10) from Italy looked at the immune status further. They found that the prevalence of _H. pylori_ was low in cases of CD4 cell counts less than 100 x 10⁹/L and high in cases of CD4 cell counts of 200 x 10⁹/L. Thus, cell-mediated immune deficiency does not appear to increase the risk of infection with _H. pylori_.

Most of the work on this subject has been reported from the developed world. Ali Mohamed et al.(11) in this issue of the journal reports their findings of _H. pylori_ in HIV-1 positive patients from Kenya. They found that cell-mediated immune deficiency does not appear to increase the risk of infection with _H. pylori_.

F. A. Koith, MBChB, MMed. Physician and Gastroenterologist, Director, Centre for Virus Research, Kenya Medical Research Institute (KEMRI), P.O Box 54840, Nairobi, Kenya

References