

13th Euro-Global Gastroenterology Conference

August 20-21, 2018 | Rome, Italy



Raihan A S M A

Bangabandhu Sheikh Mujib Medical University, Bangladesh

Association of *Helicobacter pylori* and anaemia

Background: *Helicobacter pylori* (*H. pylori*) associated gastritis may cause iron deficiency anaemia. Therefore, this infection should be diagnosed and cured.

Aim: This study is aimed to find out association of *H. pylori* infection and iron deficiency anaemia.

Methods: Association of *H. pylori* infection and anaemia was studied in dyspeptic patients. Those who were found to be normal at upper GI endoscopy were included in this study. Rapid urease test was done to detect *H. pylori* infection. *H. pylori* positive patients were considered as group A and *H. pylori* negative as group B. A total of 194 patients (aged 18 to 60 years) of both sexes were included, 134 belonged to group A and 60 to group B. Five ml of blood was collected from each patients for estimation of hemoglobin level, serum ferritin, mean corpuscular hemoglobin (MCH) and mean corpuscular volume (MCV). Iron deficiency anaemia was defined as hemoglobin(Hb) concentration <120 g/L in men and <110 g/L in women, serum ferritin <12 µg/L, mean corpuscular haemoglobin (MCH) <27 pg, and mean corpuscular volume (MCV) <80 fL. Iron deficiency was considered when serum ferritin was <12 µg/L (70).

Results & Conclusions: Serum ferritin was higher in *H. pylori* negative group than *H. pylori* positive group. In the multiple regression model *H. pylori* infection was associated with 28.8% decrease of serum ferritin (95% CI=-4.85 to-9.1); $r^2=0.271$). The mean MCV was found to be 85.45 ± 6.93 (in fL) in group A and 88.73 ± 4.58 (in fL) group B. The difference was statistically significant ($p<0.05$). The mean MCH was significantly lower in group A than group B. In male patients, the mean Hb% was lower than group B and the difference was statistically significant ($p<0.05$). In female patients mean Hb% of both groups were almost similar. So it appears that *H. pylori* infection is associated with iron deficiency anaemia.

Recent Publications:

1. Yip R et al. (1997) Pervasive occult gastrointestinal bleeding in an Alaska native population with prevalent iron deficiency: role of *Helicobacter pylori* gastritis. JAMA. 277(14):1135-1139.
2. Marignani M et al. (1997) Reversal of long-standing iron deficiency anaemia after eradication of *Helicobacter pylori* infection. Scand. J. Gastroenterol. 32(6):617-622.
3. Seo J K, J S Ko and K D Choi (2002) Serum ferritin and *Helicobacter pylori* infection in children: a sero-epidemiologic study in Korea. J. Gastroenterol. Hepatol. 17(7):754-757.
4. Sarker S A et al. (2008) Causal relationship of *Helicobacter pylori* with iron-deficiency anemia or failure of iron supplementation in children. Gastroenterology. 135(5):1534-1542.
5. Dunn B E, Cohen H and Blaser M J (1997) *Helicobacter pylori*. Clinical Microbiology Review. 10(4):720-741.

Biography

A S M A Raihan has been working in the department of Gastroenterology, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh. His research interest is focused in Irritable bowel syndrome, inflammatory bowel disease, peptic ulcer disease and *Helicobacter pylori* infection. His important works are profile of ulcerative colitis in Bangladesh, presented in APDW, 2006, profile of patients of Crohn's disease in Bangladesh, Symptomatic overlap in patients with diarrhoea predominant irritable bowel syndrome and microscopic colitis in Bangladeshi population and histopathological alteration in post infectious irritable bowel syndrome. He developed a clinical scoring system to differentiate difficult to diagnose cases of intestinal tuberculosis and Crohn's disease and presented his work in Asia Pacific Digestive Week, Kobe, Japan in 2016. He has got more than 50 publications and he supervised more than 50 theses.

prof.raihanbd@gmail.com