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On Inverse Association Between Helicobacter pylori Gastritis and Microscopic Colitis: The European data.

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To The Editors,

in a recent paper, Sonnenberg and Genta[1] have reported an inverse association (OR = 0.6, 95% CI = 0.52-0.7) between *Helicobacter pylori* (*H. pylori*) infection and the occurrence of microscopic colitis (MC), in a United States' study.

Since these data could be influenced by the epidemiology of *H. pylori* infection, we performed a single-center study in Northern Italy, an area with a higher prevalence of *H. pylori* infection (only 10.2% of prevalence in the United States' paper[1]).

The inclusion criteria were: a diagnosis of lymphocytic or collagenous colitis performed by standard international criteria;[2] *H. pylori* infection assessed by a direct method.[3]

The exclusion criteria were: a diagnosis of celiac disease;[4] a suspect of inflammatory bowel disease;[5] a diagnosis of *H. pylori* infection preceding that of MC but lack of data about the eradication treatment before the diagnosis of MC.

We included 50 patients, 36 women (72%) and 14 men (28%), median age 51 years, affected by MC and in whom *H. pylori* status was assessed by histology (n=47) or by 13C Urea Breath Test (UBT) (n=3). Of this cohort, 40 patients were affected by lymphocytic colitis and 10 by collagenous colitis. *H. pylori* resulted positive in 18 patients (36%), of whom 13 affected by lymphocytic colitis and 5 affected by collagenous colitis; the difference was not statistically significant (Chi-squared test, P = 0.51). These data were compared with a control population of 404 subjects suffering from constipation, who underwent UBT for study purposes. This cohort included 224 women (55.4%) and 180 men (44.6%) (statistically significant difference with cases, P = 0.038), with median age of 55 years (not statistically significant different, Mann-Whitney test, P = 0.4).

H. pylori infection was reported in 166 controls (41.1%), without difference with cases (Chi-squared test, P = 0.59).

Of the 18 patients with *H. pylori* positive status in the MC populations, in 8 (44%) the *H. pylori* infection was eradicated before the diagnosis of MC. Thus, at the diagnosis of MC

only 10 patients (20%) were *H. pylori* positive. Considering patients with history of *H. pylori* positivity but with eradication before the diagnosis of MC as patients with negative *H. pylori* status, there was a statistically significant difference between cases and controls (Chi-squared test, P = 0.006).

In conclusion, to be *H. pylori*-negative *ab initio* or after antibiotic treatment seems to be a risk factor for the onset of MC.

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