

Helicobacter pylori in Rosacea and Chronic Urticaria

Sir,
Rosacea and chronic urticaria are two common dermatological conditions that have been associated with *Helicobacter pylori* infection (1). Several reports have described improvement in the dermatological condition following administration of antimicrobial therapy to eradicate *H. pylori* (2–4). However, recent controlled reports have found similar rates of *H. pylori* infection in patients with rosacea and in healthy patients (5–7), suggesting a lack of this association and that the improvement in rosacea following systemic antimicrobial therapy is unlikely to be due to eradication of *H. pylori* (8).

The present open and uncontrolled study was designed to determine the prevalence of *H. pylori* infection in patients with several skin disorders, the presence of gastrointestinal disease, and the response of *H. pylori*-infected patients with rosacea and chronic urticaria to antibiotic therapy for *H. pylori* eradication.

MATERIAL AND METHODS

All patients were recruited from the Dermatology and Gastroenterology Departments of Valme Hospital. Patients with more than 8 years' history of chronic urticaria or rosacea were included in the study. The initial group comprised 124 patients (79 with rosacea and 45 with chronic urticaria), all of them positive for *H. pylori* infection, confirmed by serology using an IgG antibody assay (Elisa EIA-G3, Bios, Gräflingen, Germany), ¹³C-urea breath test, and gastroscopy with mucosal biopsy. They were seen from May 1996 to July 1998. Twenty-two patients were excluded because they did not finish the study, did not complete anti-*H. pylori* therapy, or refused to undergo cutaneous or gastroscopy biopsies. Thus, the final group comprised 63 patients with rosacea and 39 with chronic urticaria. Thirty-seven of the 63 patients with rosacea (15 males and 22 females; age range 34–69 years), and 21 of the 39 patients with chronic urticaria (5 males and 16 females; age range 30–60 years) were treated with omeprazole 40 mg/day over a period of 4 weeks, plus amoxicillin 4 × 500 mg/day or clarithromycin 2 × 500 mg/day, and metronidazole 3 × 400 mg/day for another 2 weeks. *H. pylori* eradication was confirmed 6 weeks later by a second ¹³C-urea breath test and gastroscopy. The same researcher evaluated the clinical appearance of rosacea scoring from 0 (nothing) to 3 (severe) the degree of facial erythrosis, number of pustules on face, telangiectasia, granulomatous lesions and rhinophyma, the presence of lesions in 3 possible areas (malar, forehead, nose) and also the existence of symptoms (pruritus, pain, suffocating). Patients were evaluated every 3 months during a 2-year follow-up period. Clinical follow-up of chronic urticaria was evaluated 4 weeks after beginning the treatment, scoring from 0 (nothing) to 3 (severe) the existence of 3 types of lesions (erythema, papule, weal) on head, trunk, upper and lower limbs, and also the presence of symptoms (pruritus, pain, dermatographism). The duration of follow-up was the same as in rosacea.

The remaining 26 patients with rosacea and 18 with chronic

urticaria were not treated because they did not have gastrointestinal symptoms, constituting the therapy control group.

The second main group comprised 147 patients negative for *H. pylori* serology (118 with rosacea and 29 with chronic urticaria).

All patients were asked about duration and clinical type of cutaneous disease, gastrointestinal symptoms, history of atopic disease, food or drug allergies. Blood examinations included test for antistreptolysin titre and IgE. Photographs and skin biopsies were taken in all patients positive for *H. pylori*. History of alcohol intake and smoking was also recorded.

RESULTS

Table I shows the incidence of *H. pylori* infection and improvement after *H. pylori* eradication. Different data from Spain describe a specific prevalence of *H. pylori* infection between 40% and 53%. Recent unpublished data from blood donors in Seville describe an age-matched prevalence ranging from 37% (19–25 years old) up to 70% (53–65 years old), with an overall prevalence of 54%. No significant differences in *H. pylori* infection prevalence were found between rosacea, chronic urticaria patients and blood donors (control) from Seville.

The most frequent digestive pathologies diagnosed in the group of 58 treated patients were superficial chronic gastritis (42 patients), peptic ulcer (13 patients), and dyspepsia (3 patients). The clinical manifestations of rosacea were: facial erythrosis (24 patients), telangiectasia (9 patients), granulomatous perioral dermatitis (8 patients) and rhinophyma (4 patients). Significant improvement of rosacea was found in 28 of 37 patients (75.6%) 12 weeks after beginning therapy against *H. pylori*, with no improvement in the non-treated group. We found significant clinical improvement in 18 of 21 patients with chronic urticaria (85.7%) 4 weeks after beginning the treatment: 9 showed total remission and 9 partial remission. The types of urticaria diagnosed in the 21 patients treated were: physical urticaria (14 patients), IgE dependent urticaria (4 patients) and complement mediated urticaria (3 patients). The disease remained unchanged in the 14 of the 18 patients of the control group, worse in 3 and improved in 1.

At the post-treatment evaluation, only 8 of 58 patients treated showed positive ¹³C-urea breath test and gastroscopy, and all of these did not show improvement of the cutaneous disease after treatment.

DISCUSSION

The percentages of *H. pylori* infection found in patients with rosacea or chronic urticaria do not significantly differentiate from a control population in Seville. However, the good

Table I. *I. Results of the present study*

Disease	Number of patients	Positive to <i>H. pylori</i>	Final group: number with gastric complaints	Improvement after <i>H. pylori</i> eradication
Rosacea	197	79 (40.1%)	37 of 63 (58.7%)	28 of 37 (75.6%)
Urticaria	74	45 (59.0%)	21 of 39 (53.8%)	18 of 21 (85.7%)
Control	567	307 (54.2%)	–	–

response to *H. pylori* therapy of these dermatoses found in this study could support the hypothesis that *H. pylori* may play a role in the pathogenesis of these skin diseases. There are papers in favour of a relationship between *H. pylori* infection and rosacea (1, 2), but Bamford et al. have found no significant beneficial effect on the symptoms of rosacea with *H. pylori* eradication therapy in a controlled study (8). In addition, the fact that metronidazole or clarithromycin are effective treatments for rosacea could explain the beneficial effect of *H. pylori* eradication therapy in rosacea.

In relation to chronic urticaria, controversy also exists (3, 4, 7), but the hypothetical role of *H. pylori* in the pathogenesis of urticaria seems easy to speculate about: we already know that *H. pylori* infection induces increases in serum IgE and basophil-bound specific IgE. Also, mastocytes vasoactive mediators released after the binding of specific IgE on mastocyte surface with *H. pylori* antigens induce the recruitment of additional inflammatory cells (9). However, Bong et al. (7) have recently found no association between chronic urticaria and *H. pylori* infection. Prospective and controlled studies would be needed to confirm a relationship between *H. pylori* and rosacea and/or chronic urticaria, as we observed.

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