

LETTERS TO THE EDITOR

Relationship between *Helicobacter pylori* and chronic urticaria*Editor*

Chronic urticaria is a clinically distressing skin disorder with unknown aetiology.

An association of chronic urticaria with infections has been suggested by some research groups, and treatment of latent infections has been one of the empirical methods for therapy of this disease.^{1,2,3} As *Helicobacter pylori* infection is common, especially in a developing world, an attempt was made to compare the prevalence of *H. pylori* infection in chronic urticaria patients and healthy persons.

In this study, 75 chronic urticaria cases were included in the patient group, and 75 healthy volunteers constituted the control group. They were matched for age and sex. Patients included 21 men (28%) and 54 women (72%) with age range of 33.1 ± 14.9 years. Controls included 22 men (29.4%) and 53 women (70.6%) with age range of 32.8 ± 15 years. No statistical difference was noted based on age and sex between two groups. Both groups were examined for *H. pylori* infection with serological testing. We used enzyme-linked immunosorbent assay because it is a low-cost, non-invasive available method for diagnosis of *H. pylori* infection. Patients were examined both for specific IgA and IgG antibodies against *H. pylori*. Sensitivity and specificity of this test for IgA are 88.9% and 97.1%, respectively, and for IgG are 96.7% and 95.5%, respectively.

IgA antibodies against *H. pylori* were positive in 52% of patients and 41.3% of the control group. There was no significant difference between the two groups ($P = 0.38$). On the other hand, IgG antibodies against *H. pylori* were positive in 74.6% of patients and 56% of the control group ($P < 0.05$).

Gastrointestinal symptoms were noted in 26% of patients and 28% of controls ($P = 0.65$).

As this disease cannot be eliminated spontaneously, patients can be considered as infected as long as they have positive tests without any treatment.

According to the above results, chronic urticaria has a relation with *H. pylori* infection based on IgG antibody against *H. pylori* infection.

Although the association between *H. pylori* infection and chronic urticaria remains controversial, our study shows that chronic urticaria has a relation with *H. pylori*

infection based on IgG antibody against *H. pylori* infection.

Various mechanisms have been suggested about how *H. pylori* infection can cause urticaria, including the release of inflammatory mediators and systemic immune response.

It seems that some infections like *H. pylori* infection can induce the expression of certain epitopes on endothelial cell adhesion molecules. In addition, the eradication therapy can not immediately reverse these changes. Thus, treatment of these infections does not necessarily lead to cure of chronic urticaria and treatment should focus on modulating inflammatory changes. Correlation between infection and urticaria should not be explained merely according to eradication of *H. pylori* infection; rather, changes made in the immune system should be noted.

Thus, we suggest the following:

- 1 chronic urticaria patients should be followed for a long period after *H. pylori* eradication therapy.
- 2 Future researches should focus on circulating pro-inflammatory cytokines. These cytokines activate mast cells or induce the expression of certain endothelial cell adhesion molecules.

A Sadighha,*† R Shirali,‡ G Mohaghegh Zahed†

†Department of Dermatology, and, ‡Department of Community medicine, Ilam University of Medical Science, Imam Khomeini Hospital, Ilam, Iran, *Corresponding author, Department of Dermatologym Ilam University of Medical Science, Imam Khomeini Hospital, Heidary str, Ilam 1234 Iran, tel. +98 841 3370544; fax +98 841 3370544; E-mail: afshin.sadighha@gmail.com

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