ENDOGENOUS FACTORS IN PATHOGENESIS AND NATURAL HISTORY OF CHRONIC URTICARIA

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ABSTRACT

The significance of the endogenous factors in pathogenesis and natural history of urticaria is widely accepted. Chronic urticaria usually develops on the background of functional and organic disorders in various organs and systems. On the other hand, these disorders are predisposing factors for the genesis and development of the chronic urticaria. Thus, endogenous factors are considered to be pathogenic for urticaria. The aim of our study was to evaluate this two-way correlation of chronic urticaria and endogenous factors in 265 patients with different clinical forms of chronic urticaria. Clinical and paraclinical investigations, including allergologic tests (intradermal, scarification) were employed in order to establish association of chronic urticaria with gastrointestinal, hepatic, renal, endocrine, cardiovascular, neurological disorders, chronic infections, etc. The patients were divided in two separate groups: with chronic allergic (122) and non-allergic urticaria (143). The percentage of patients with urticaria associated with internal disorder was as follows: gastrointestinal 24,15%; hepatobiliary 19,62%; endocrine 17,73%; urogenital 15,84%; cardiovascular 2,64%; chronic infections 3,01%; atopy 7,16%. Furthermore in the group of non-allergic urticaria 53,9% of the patients were with associated somatic disease, while in the group of allergic urticaria, the percentage was 46,1%. The same pattern of distribution was found in every group of the studied internal disorders. The results of the study show the significant prevalence of visceral diseases in the patients with chronic urticaria. The role of the endogenous factors in the pathogenesis of chronic urticaria is not well defined, but surely they are predisposing background on which various allergic and non-allergic pathogenic mechanisms superimpose.

Keywords: allergic chronic urticaria, non-allergic chronic urticaria, chronic infections, organic disorders

The significance of the endogenous factors in pathogenesis and natural history of urticaria is widely accepted. Chronic urticaria usually develops on the background of functional and organic disorders in various organs and systems.

On the other hand, somatic disorders are predisposing for sensitization to exogenous etiological factors. Thus, endogenous factors are considered to be pathogenic for chronic urticaria, so a two-way correlation is established between them.

MATERIALS AND METHODS:

Our study evaluates the association of chronic urticaria with visceral disorders in 265 patients divided in two separate groups: allergic (122 patients) and non-allergic urticaria (143 patients). We, also, compared the prevalence of somatic diseases between these two groups.

Clinical and paraclinical investigations were employed in order to establish association of chronic urticaria with gastrointestinal, hepatic, renal, endocrine, cardiovascular, neurological disorders, chronic infections and atopy. All of the

patients were studied for focal infection, including allergologic tests (intradermal and scarification).

Tabl. 1. Percentage of somatic disorders in patients with chronic urticaria

Somatic disorders	Patients with chronic urticaria n = 265
Gastrointestinal disorders	24,5 %
Hepatobiliary disorders	19,6 %
Endocrine disorders	17,7 %
Urogenital disorders	15,8 %
Cardiovascular disorders	2,6 %
Disorders of vegetative nervous system	98 %
Chronic infections	3,9 %
Atopy	7,1 %

RESULTS

The percentage of patients with chronic urticaria associated with internal disorder was as follows: gastrointestinal diseases-24,15% (64 patients); hepatobiliary and pancreatic diseases-19,62% (47 patients) and endocrine disorders-17,73% (52 patients). Urogenital disorders were found in 42 patients (15,84%). The percentage of other somatic disorders was significantly smaller, as follows: cardiovascular in 7 patients (2,64%); chronic infectious diseases in 8 patients (3,01%) and disorders in vegetative nervous system in 26 patients (9,81%).

In 156 of the patients researched (58,8%) a focal infection was found and 19 patients (7,16%) showed atopy (Tabl.1). When the groups of allergic and non-allergic urticaria were compared it was established that the patients with non-allergic urticaria showed higher percentage of association with somatic disorders (Tabl. 2).

Tabl. 2. Percentage of somatic disorders in the two studied group: allergic and non-allergic chronic urticaria

Allergic urticaria n = 122	Somatic disorders	Non-allergic urticaria n= 143
39,1 %	Gastrointestinal disorders	60,9 %
45,2 %	Hepatobiliary disorders	53,8 %
44,7 %	Endocrine disorders	55,3 %
47,6 %	Urogenital disorders	52,4 %
71,4	Cardiovascular disorders	28,4 %
30,8 %	Disorders of vegetative nervous system	62,3 %
	Chronic infections	100 %
100 %	Atopy	

Gastrointestinal disorders were found in 39 patients with non-allergic urticaria (60,9%) and in 25 with allergic urticaria (39,1%). Similar distribution was established in hepatobiliary disorders- 28 patients (53,8%) and 24 (46,2%), respectively.

From the patients with chronic urticaria associated with endocrine diseases 21 were with the allergic (44,7%) and 26 with non-allergic form (55,3%). 20 of the cases with urogenital diseases were associated with allergic (47,6) and 22 with non-allergic urticaria (52,4%). Disorders of the vegetative nervous system were found in 8 patients with allergic (30,8%) and in 18 patients with non-allergic urticaria (62,3%)

DISCUSSION

The results of the study show the significant prevalence of visceral diseases in the patients with chronic urticaria.

Some authors note that 74% of the cases with chronic urticaria are associated with somatic diseases. Especially high is the percentage of patients with focal infection. In adult patients with urticaria mostly distinguished are respiratory infections- in 33% (17), as well as chronic rheumatism (10), while in children - only in 81% of the cases (11,13). Urogenital infections and urticaria are found in elder patients in 3% (12), as well as in children (13). Various viral infections may be in connection with urticarial reactions (4, 1), in this sense with Hepatitis C (8, 9, 15, 5). The connections between chronic urticaria and enteral parasites is known in the literature from long time (5), but nowadays a specific role is given to *Helicobacter pylori* in urticaria (5, 14, 16, 13). The endocrine disorders mainly of the thyroid gland (hyper- and hypo-thyroiditis, Addison disease) have certain role in the statement of chronic urticaria (3, 2) and really more often - the autoimmune thyroiditis (3, 6). In the allergic urticaria, localized infective focuses result in sensitization to bacterial and mycotic causative agents. This view is supported by many authors: for the bacteria sensitization and for the mycotic one. Others emphasize on the use of exogenous sensitizers (drugs) in the treatment of endocrine disorders. The atopic status in the chronic urticaria is found in 34% in elder patients (7) and in 56% in children (11).

The role of the endogenous factors in the pathogenesis of chronic urticaria is not well defined. Surely, functional and organic disturbances in various organs and systems lead to mediator liberation which results in urticaria formation. Visceral diseases may be acknowledged as pathogenic in development of urticaria.

CONCLUSIONS

Endogenous factors have a significant importance in the pathogenesis and natural history of chronic urticaria. They are the background on which various allergic and non-allergic pathogenic mechanisms superimpose. That is why, patients with chronic urticaria should be scrupulously investigated for somatic disorders, as a part of the prophylaxis and complex management of this condition.

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