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Features of Early Diagnosis of Hurtical

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Abstract:
Urticaria is a group of diseases characterized by the development of itchy blisters and/or angioedema [1]. In approximately 40% of cases, urticaria is accompanied by angioedema. The prevalence of acute urticaria ranges from 1 to 5% in the population, and among the pediatric population, the incidence of acute urticaria reaches 6.7%. Recent estimates suggest that 10 to 20% of the population will experience an episode of acute urticaria during their lifetime. About 50% of children with acute urticaria have concomitant allergic diseases [2]. According to S. Comert, the most common triggers of acute urticaria are drugs (38.1%), infections (35.2%), stress (24.7%) and food (17.8%) [7]. In another study, drugs were also the most common cause of acute urticaria - 20.7%; the next most common were insect bites (10.2%) and food products (7.4%) [3].

Keywords: urticaria, diagnosis, treatment, effectiveness, safety, acute allergic-pseudoallergic reactions, provoking factors, food allergy, drug allergy, urticaria, angioedema.

Introduction

Chronic urticaria is one of the pressing medical and social problems due to its widespread prevalence, intensive growth in incidence, frequent resistance to traditional methods of therapy, negative impact on quality of life, and financial burden on the healthcare system and patients. The prevalence of chronic urticaria in the population ranges from 0.1 to 1.5%, and mainly affects people of working age [4]. A long and persistent course of the disease, severe itching, and cosmetic problems lead to loss of ability to work and a decrease in the quality of life of patients with chronic urticaria. In the last decade, attempts have been made to establish a unified approach to the diagnosis and management of chronic urticaria based on the principles of evidence-based medicine. The tools of everyday clinical practice are international and domestic consensus documents that briefly reflect modern ideas about various aspects of chronic urticaria [5]. Chronic urticaria is a polyetiological disease with different pathogenesis options and typical clinical manifestations - rashes on the skin in the form of blisters (urticaria), which quickly merge and spread throughout the body. Chronic urticaria is a very difficult problem both in terms of diagnostic search and in choosing effective and adequate therapy. The situation, as a rule, is aggravated by the fact that children with chronic urticaria are admitted to a specialized hospital quite late (at 4–12 weeks from the onset of the rash), which seriously complicates the management of such patients and worsens the prognosis of the disease. Often, despite all efforts, doctors are unable to find

the causes of this pathology in a particular patient. In such cases, we are dealing with the so-called idiopathic variant of chronic urticaria [6]. For decades, a number of international organizations have been working to solve the problems that doctors face when managing patients with chronic urticaria. This is evidenced by European guidelines for the diagnosis and treatment of urticaria [7]. Urticaria is an etiologically heterogeneous group of diseases and conditions, united by the main symptom and the primary skin element - a blister, resulting from swelling of the papillary dermis. The cause of the blistering reaction and itching is the release of biogenic amines in the lesions. The key mediator is histamin. Recently synthesized arachidonic acid mediators include PGD2 and the leukotrienes C4, D4 and E4. Leukotriene C4 is 1000 times more potent than histamine and thus can be considered an additional mediator of urticaria [7,8]. Leukotrienes are the most important pro-inflammatory cytokines, synthesized by mast cells, eosinophils, neutrophils upon their activation, are powerful inflammatory mediators, bind to cysteinyl-leukotriene receptors, and as a result of the interaction, a violation of the permeability of the vascular wall occurs [8]. There are many classifications of urticaria, which take into account both the clinical manifestations of the disease and its etiology, but in recent years, a consensus of leading European experts has proposed classifying urticaria depending on its duration and the factors that provoke the appearance of the rash. In this case, one should take into account the presence of a wide range of clinical manifestations of various types of urticaria, as well as the possibility of one patient having two or more subtypes of urticaria. According to the course, acute (up to 6 weeks) or chronic (more than 6 weeks) urticaria is distinguished [9]. Urticaria is a common pathology. A number of studies classify urticaria as a group of hereditary diseases, and this is not groundless. Most researchers agree on defects in the complement system. However, each form of urticaria has its own characteristic features of the course [10,11]. Despite the fact that urticaria is an etiologically heterogeneous disease or syndrome, the primary element of all variants of the disease is a blister. The blister always has a typical characteristic: local swelling of the papillary dermis, accompanying swelling, skin itching or burning, short duration (usually up to 24 hours). The main pathophysiological mechanism of blister formation is the activation of mast cells with the release of mediators of allergic inflammation (histamine, prostaglandins, kinins), leading to increased vascular permeability, vasodilation and acceleration of blood flow [7,10]. A unified classification of urticaria, recognized throughout the world, does not yet exist. Urticaria can be either an independent disease (primary) or a symptom of some disease (secondary). Urticaria is classified according to duration, types and subtypes. One patient may have two or more different forms of urticaria [11].

The aim of the study:

To identify risk groups for urticaria, early diagnosis, to analyze the etiological factors in the formation of allergic urticaria, to find out the influence of provoking factors on the clinical picture.

Materials and research methods:

Patients for the study were recruited from outpatient clinics. The study was carried out by parallel, independent recruitment of the main group and the comparison group. The main group consisted of 92 patients at risk of allergic urticaria: those suffering from allergies, those suffering from chronic diseases, those suffering from acute and chronic infections, in whom the most important risk factors for the development of urticaria. Comparison group: 68 patients - priority groups for the prevention of urticaria. Study participants in both groups underwent a series of laboratory tests to create reference values for a healthy population. The sample did not include persons over 35 years of age. Initially, all patients went through the process of making a diagnosis: the diagnosis was determined by collecting complaints, anamnesis, and examining the patient; the factors that directly provoked them were carefully studied and analyzed. Complete information about the diet was collected, a general clinical examination was carried out, and laboratory tests were prescribed - a blood test assessing the leukocyte count, eosinophilia, and liver parameters. Other studies were also performed (as indicated). Laboratory tests are necessary in some cases to determine the cause of hives. In most cases, the diagnosis is based on the anamnesis (history of the disease) and examination of the patient.

Research Results:

It was revealed that among those examined, the highest frequency of manifestations of allergic urticaria was observed in the age group from 7 to 10 years, which amounted to 22%. In the age group from 4 to 6 years, the incidence of urticaria was 18%. The highest incidence was observed in the age group of children from 10 to 14 years (60%). 76% of the subjects were diagnosed with food allergies. Laboratory studies showed that in 37% of the subjects the ESR level was higher than 20 mm/hour, eosinophils were more than 20%, leukocytes were normal or higher than 10x109/liter, protein was found in 29% of the subjects, and bacteria were found in 19%. There is a high percentage (4 times more) of infants in the group with acute food allergic reactions; on the contrary, there are 2.2 times more patients over 12 years of age. Thus, young children are more often susceptible to acute food allergic reactions. In the comparison group, the average age of patients was 24.2 [3-35.4] years. age, gender, heredity, genetic factors, early development of urticaria in relatives, dietary habits. The presence of even one of the risk factors increases the risk of urticaria by 3.5 times, and the combined effect of several factors by 5-7 times. A complete analysis of the information was carried out, taking into account age characteristics and gender. Thus, the groups were comparable to each other

in terms of gender and age. Research results have shown that the most significant or major risk factors are various diseases: viral and bacterial infections, parasitic lesions, and the presence of chronic inflammation. The combination of the above factors together increases the likelihood of developing urticaria by 3-10 times. Gender differences among patients with an acute allergic reaction were manifested by the leadership of boys (14 and 20% more in groups 1 and 2, respectively). Urticaria may be accompanied by Quincke's edema (angioedema, old name - angioedema). Angioedema is swelling that involves the deep layers of the skin in the pathological process. According to statistics, in 50% of cases, urticaria occurs in isolation, 40% of patients with urticaria develop Quincke's edema, and 10% of patients develop angioedema without urticaria. Some patients are sincerely mistaken in believing that Quincke's edema is only swelling of the face or throat. Angioedema does often occur in the face, but this does not mean that it cannot appear on the hands, feet and other parts of the body.

Conclusions:

Urticaria is one of the most common skin diseases, characterized by the appearance of a skin rash, the primary element of which is a blister. According to epidemiological studies, urticaria is observed at least once during life in 15-25% of the population, and becomes chronic in 25% of cases. Urticaria can be either an independent disease or a symptom of a number of diseases [14,15]. In patients with urticaria, it is necessary to try to establish the etiological factor of the disease. To do this, it is recommended to check: substances entering the digestive system (food products, medications, etc.), inhalants (dust, feathers, etc.), injectants, infections (bacterial, viral, fungal, parasitic), internal diseases: chronic infections, thyroid diseases [2,7,10,16]. The main directions for preventing urticaria are: eliminating the cause. Elimination of factors that provoke the rash. The use of medications that either prevent the release of inflammatory mediators from mast cells or block the effects of these mediators. The basis of treatment for urticaria is general measures to prevent or eliminate triggers and pharmacotherapy. Therapy can be divided into first, second and third line therapy [8,9,14,17]. The study focused our attention on some clinical features and the course of an acute allergic reaction, which may provide practical guidelines in differential diagnosis and tactics for further patient management. Thus, a food reaction most often occurs in early childhood, less often observed in adolescents - to animal products and vegetables. Fruits that cause an acute allergic reaction include mainly exotic varieties. Every 10th patient provokes a reaction from nuts or seeds. In the clinical picture of angioedema, edema is common, especially swelling of the lips and tongue (due to different “techniques” of eating and taking medications). The prevalence of chronic urticaria ranges from 0.1 to 0.5% in the population. The average duration of the disease is 3–5 years. In 50% of those who have suffered from the disease, an exacerbation may occur again even after a long remission. Women suffer from urticaria more often than men, children more often than adults. In adults, the chronic form of the disease predominates. There is no single generally

accepted classification of urticaria. It is proposed to distinguish the main groups of conditions accompanied by the appearance of blisters, united by similar pathogenetic mechanisms: ordinary urticaria, physical urticaria, contact urticaria, hereditary urticaria or hereditary angioedema, psychogenic urticaria [13,17]. The prevalence of acute urticaria is 20% [10], among the pediatric population - 2.1–6.7% [11], while acute urticaria is more common in children than in adults. Chronic spontaneous urticaria (CSU) affects up to 0.5-5% of the population; women are affected more often than men [12]. Primary health care includes measures for the prevention, diagnosis, treatment of urticaria and associated diseases, medical rehabilitation, and the formation of a healthy lifestyle. Primary medical care is provided by general practitioners, local physicians, pediatricians, local pediatricians and general practitioners (family doctors). Prevention is aimed at maintaining long-term remission and preventing exacerbations, and includes elimination measures: eliminating or limiting exposure to physical or other triggers of urticaria (cold, heat, exercise) and controlling disease activity.

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