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Modern View on the Etiological Factors in Allergic Diseases

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Abstract: Allergic diseases (AD) take the third place after cardiovascular and oncological diseases (and in some ecologically unfavorable regions they come out on top). It has also been noted that over the past 30 years, during each decade, the incidence of allergies worldwide has doubled [6, 7]. This article provides an overview and information about the etiological factors of allergic diseases**.**

Key words: allergic diseases, allergic dermatoses, etiology, epidemiology.

Relevance. Numerous epidemiological studies on the prevalence of allergic diseases, conducted both in our country and abroad, objectively reflect the steady growth of allergopathology, especially in children [2, 3].

Allergic diseases (AD) take the third place after cardiovascular and oncological diseases (and in some ecologically unfavorable regions they come out on top). It has also been noted that over the past 30 years, during each decade, the incidence of allergies worldwide has doubled [6, 7]. ADs are one of the most common causes of disruption of social activity, early disability of children and the young working-age population, which causes enormous economic damage and determines their medical and social significance (A.G. Chuchalin, 2008). It is estimated that more than 20% of the world's population is currently suffering from allergies.

In ecologically unfavorable regions, the frequency of allergic morbidity in the population reaches 50% or more. The prevalence of allergies in Russia is 15-35%.

Allergic diseases are also common in Uzbekistan. The growth of bronchial asthma alone has been noted 25 times over the past 20 years.

In our country, a set of measures is being taken to reform the healthcare system, a number of legal acts have been adopted to improve specialized, emergency and emergency medical care, activities in the field of protecting and improving the health of citizens.

Despite the positive results achieved, serious problems and shortcomings remain in the field of diagnosis, treatment and prevention of allergic diseases, including:

the first, separate development of the fundamental and applied foundations of allergology from practical medicine does not allow paying due attention to the introduction and widespread use in practice of modern methods of diagnosing and treating allergic diseases at a fundamentally new, molecular level;

second, shortcomings in the provision of medical institutions with therapeutic and diagnostic allergens lead to unreasonably widespread use of antibiotics, antihistamines and hormonal drugs in medical practice;

thirdly, due measures are not taken for primary and secondary prevention of allergic diseases, ensuring the availability of specialized allergological care on the ground, as a result of which patients are forced to seek treatment in regional centers and the capital of the republic;

fourthly, the system of personnel training and advanced training in this area does not meet modern requirements, as a result of which the staffing of medical institutions with qualified allergologists and immunologists is in an unsatisfactory state;

fifth, there is no effective mechanism for collecting, analyzing and exchanging information, maintaining reliable statistical reporting, there is no unified system for monitoring and coordinating specialized departments of medical institutions in the field of allergic care;

sixth, the material and technical base of medical institutions, including the Republican Scientific and Specialized Allergological Center, the level of their equipment with modern medical equipment does not allow for effective diagnosis and treatment of allergic diseases.

In order to improve specialized allergological care, improve its quality and accessibility, introduce advanced methods for diagnosing and treating allergic diseases, as well as strengthening the material and technical base and human resources of specialized medical institutions, the Decree of the President of the Republic of Uzbekistan PP-3715 of 11.05.2018 was issued. "On measures to radically improve the prevention, diagnosis and treatment of allergic diseases."

Symptoms of acute allergic conditions (AAC) are common among the population. It has been established that 20-30% of the world's population has experienced some acute allergic reaction during their lifetime. In addition, it is estimated that every 10 years the incidence of AAC increases by 2-3 times. It would not be an exaggeration to say that the prevalence of allergy symptoms throughout the world is epidemic. There has been an upward trend in severe cases of AAC in recent years around the world. So, for example, according to the data of the National Scientific and Practical Society for Emergency Medicine (EMS) for 2001, the number of calls for AAC in the whole of the Russian Federation increased by 18%, and in Moscow - by 36%.

Admission of children with AAC to the EMS of the city of Bukhara for 2001-2005. tended to increase. So, in 2001, the frequency of visits of children with AAC, in relation to the total number of calls, was 8.5±0.03% for boys, and 14.9±0.05% in 2005, that is, it was more almost in 2 times

(P<0.05). A similar picture was observed with regard to the appealability of girls to the EMS: in 2001 - 5.5 ± 0.02%, and in 2005 - 11.9 ± 0.04%, that is, more than 2 times (P<0 .05). The upward trend in the frequency of calls from children with AAC was also confirmed by the analysis of the frequency of visits by children with AAC in relation to the total number of calls. Thus, the specific frequency of children's calls in 2001 was 14.0±0.05%, and in 2005 it was 26.8±0.08%, that is, it almost doubled (P<0.05). The frequency of calls in relation to the total number of calls was 2.9% in 2001, and 3.4% in 2005, that is, it was 1.2 times more. Similar results were revealed when analyzing the frequency of calls in relation to 1000 urban children. So, for example, over the past 5 years, the number of calls from children about AAC per 1000 urban children has increased from 5.0 (2001) to 7.4 (2005), that is, almost 1.5 times. The frequency of hospitalization of children with AAC tended to increase. So, for example, the frequency of hospitalization of children for AAC in 2001 was 30.0%, and in 2005 - 40.9%, that is, it increased by almost 1.5 times.

Within 5 years, the total number of children with allergic dermatitis, in relation to the total number of calls, was 4421 (18.1%). The frequency of calls for acute reactions associated with allergic dermatitis, in relation to the total number of calls, in the period from 2001 to 2003 was in the range of 2.7-2.9%, and in the period from 2004 to 2005 increased to 4, 6-5.0%, that is, almost 2 times.

AAC was clinically manifested as food allergy, allergic dermatitis, drug allergy, bronchial asthma, pollen, dust and insect allergies. Various factors contribute to the formation of such disorders, including numerous agents of an infectious and non-infectious nature, acute and chronic stress, environmental pollution, malnutrition, and vitamin deficiency.

In addition to the deterioration of the ecological situation, changes in the nature of the population's diet, chemicalization of everyday life, the growth of allergic dermatoses, the transition of acute forms to chronic ones, and the increase in the severity of diseases, the lack of a unified system of primary prevention, dispensary observation and rehabilitation of patients contributes. So, in a selective study conducted by employees of the Department of Pediatrics of the Bukhara State Medical Institute and the Health Department of the Bukhara Region, it was found that only 11.7% of children with atopic dermatitis had a plan for dispensary observation, 1.2% of children were examined by an allergist, 4, 0% - by a dermatologist, rehabilitation measures were carried out in only 13.6% of patients.

An analysis of literature data and our own epidemiological and clinical studies of AAC made it possible to identify the following types of occurrence of allergic conditions: the first place was occupied by acute allergic reactions from the gastrointestinal tract (GIT). The following mechanism of this phenomenon is presented. These patients are exposed to the allergen that enters the body with food. Allergic diseases of the gastrointestinal tract cause swelling of the lips and

tongue or intestinal cramps. Diseases can be provoked by improper feeding, functional disorders of the intestines, pathology of the pancreas and liver, inflammatory bowel diseases, etc. Allergy symptoms are usually accompanied by repeated diarrhea with abundant mucus. Other common symptoms of GI allergies are dry lips, anorexia, vomiting, and irritability.

In second place was generalized urticaria. This form of allergy is characterized by the appearance of itchy blisters of various sizes and shapes.

According to the frequency of detection, the next place is occupied by acute angioedema and larynx. In this case, swelling of the lips, eyelids, auricles, face, etc. usually develops.

The next place in the frequency of detection is occupied by combined forms of AAC. Children may simultaneously experience symptoms of gastrointestinal allergies, urticaria and Quincke's edema. In last place was anaphylaxis. Symptoms of anaphylaxis include: shortness of breath, cyanosis, hypotension, nausea, vomiting, abdominal pain.

The clinical forms of these allergic reactions are manifested in the form of severely itchy, raised lesions of the skin, turning pale when pressed. Occur when using various foods, medicines and the action of various physical factors (cold, heat, sunlight).

According to our data, the severity of the clinical course was not the same: mild - 7.9%, moderate - 32.1%, severe - 60.0%.

AAC was clinically manifested as severe and moderate severity of food allergy - 39.3%, allergic dermatitis - 18.1%, drug allergy - 12.5%, bronchial asthma - 10.2%, pollen and dust allergies - 10, 1% and insect allergy - 9.8%. In the formation and development of acute allergic conditions, in addition to causative factors, such risk factors as hereditary burden - 70.3%, allergic diathesis - 60.5%, artificial feeding - 55.3% were of significant importance. An elevated blood level of total Ig E - markers of atopic, allergic reactions (type 1) in children with AAC and in their mothers indicates a hereditary predisposition with these diseases.

Thus, it was possible to determine some features of AAC in children living in the conditions of the city of Bukhara. First of all, it turned out that AAC are common and tend to increase further. In this regard, OAS constitute one of the urgent and promising problems in our republic. The question arises: what explains this phenomenon? Some researchers attribute the growth of allergic diseases in general, including severe cases, to the improvement of their diagnosis.

Allergic diseases can successively replace each other in ontogeny. This natural course of atopy, characterized by an age-related sequence of development of clinical symptoms and sensitization, is called the “atopic march” [7, 9]: in the first months of life, gastrointestinal and skin symptoms predominate, mainly caused by food allergens, later rhinitis develops with sensitization to inhaled allergens. and asthma. The peak prevalence of atopic dermatitis occurs in the first year of life, reaches 20% by the first year, then a decrease is recorded - up to 5%. At the

same time, the incidence of allergic rhinitis (AR) slowly increases with age (from 3 to 15%). From 30 to 76% of children with bronchial asthma (BA) have symptoms of atopic dermatitis. 80% of children who develop allergic dermatosis in early childhood subsequently develop AR, 10–20% of them develop BA [7, 8]. The most common allergic diseases are AR, allergic dermatoses and BA. These diseases are predominantly atopic in nature and it should be emphasized that 45-65% in the structure of allergic diseases is occupied by combined manifestations of atopy with damage to the skin, ENT organs and respiratory tract organs. Evidence of the relationship between AR and BA is primarily the results of numerous epidemiological studies: 30-40% of patients with AR have BA [6], and clinical manifestations of AR occur in more than 80% of patients with atopic BA [7]. Patients with AR are 3 times more likely to develop asthma than patients without AR [8].

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