

**COMPARATIVE ANALYSIS OF THE PREVALENCE OF ALLERGIC DISEASES
AND PSEUDOALLERGIC CONDITIONS.**

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ANNOTATION. The number of allergic diseases is growing steadily. The problem of the prevalence of allergic diseases and pseudoallergic conditions is of great importance for practical healthcare. Such studies are important for the development of methods of secondary sensitization in practically healthy people, as well as risk factors for the development of pseudoallergic conditions, the search for effective methods of treatment and rehabilitation [1].

KEY WORDS: allergic diseases, anaphylactic shock, pseudoallergic condition, immunological changes, sensitivity.

RELEVANCE OF THE PROBLEM:

In many countries, the number of allergic pathologies is steadily growing. But at the same time, epidemiological studies conducted in many countries around the world show that the number of people suffering from allergic diseases (A3) continues to grow steadily [2]. But at the same time, no country has accurate data on the prevalence of AD and pseudoallergic conditions (PS) among its citizens. Moreover, it is unknown what the internal structure of these states is, i.e. the ratio of true allergies (specific, immunological) and pseudoallergic (PS) (non-specific, non-immunological).

It is believed that from 10% to 30-35% of the urban and rural population living in areas with highly developed economic potential suffer from AD. In 20% of cases, the population of Europe and the USA has various manifestations of allergic reactions. Proportional to the increase in the incidence of allergic diseases, there is an increase in the mortality rate for such common diseases as bronchial asthma (BA), anaphylactic shock, acute toxic-allergic reactions.

PURPOSE OF THE STUDY: To conduct a comparative analysis of the prevalence of allergic diseases and pseudo-allergic conditions.

MATERIALS AND METHODS: The research was carried out in the Andijan region from 2010 to 2020. An epidemiological and retrospective study of morbidity among urban and rural populations was carried out. The prevalence of allergic diseases and pseudoallergic conditions was studied.

RESULTS: According to an epidemiological study, the incidence of allergic pathology ranges from 11.2% to 19.7%. The most common morbidity is bronchial asthma, which affects from 1.4% to 5.8% of the population. In recent years, the number of patients with AD has increased 3-4 times. The dependence of the prevalence and structure of AZ on the climatic and geographical, economic features of the region, and the density of industrial enterprises was noted.

In areas with varying degrees of air pollution, the prevalence of asthma ranged from 1 to 14.9%. A strong correlation has been established between the prevalence of asthma and environmental factors.

The incidence rate of atopic diseases is determined mainly by environmental factors, and social and production conditions play an important role here. A large number of works by domestic and foreign authors are devoted to the epidemiology of occupational allergies.

Products from the processing of raw materials from textile production are accompanied by the release of biologically active substances, fine dust and organic fibers, which, when penetrating into the bronchial tree, have an irritating effect, and not just an allergic one.

A feature of the impact of organic dust (using the example of cotton research) is bacterial contamination and fungal infections of the fibers, which determines their allergenic properties.

There are additional factors that contribute to the development of allergies among workers involved in textile production. These are nitrogen-containing fabric dyes, residual amounts of organochlorine pesticides and formaldehyde - urea resins used to give products higher commercial qualities, which are more likely to cause pseudo-allergic conditions.

In a comparative study of textile industry workers exposed and not exposed to cotton dust, symptoms of lung pathology (cough, choking, asthma, chronic bronchitis) were found in 45% of the first group and 18.3% of the second.

The incidence of asthma among workers in the cotton processing industry can reach 90% of those working in production and depends on the quality of the cotton. Cotton contaminated with plant particles is considered especially dangerous [5]. This is due to the fact that the extract from cotton bract contains an active substance that can release mediators in a non-immunological way.

Skin tests with this substance are negative, and provocative inhalation tests cause immediate reactions in sensitive patients. At the same time, in typical asthma in workers, the role of a true allergy to cotton cannot be ignored. Allergy is supported by the positive results

of an allergological examination with allergens of cotton and flax and the identification of specific IgE antibodies to the components of cotton dust.

The cause of occupational allergic dermatoses in 82.5% of cases is chemical substances, in 9.1% - biological compounds and in 9.4% - industrial dust. The study of etiopathogenetic mechanisms of allergosis development continues. We must consider allergoses, including occupational ones, as a collective group of true allergic and pseudoallergic conditions that have homogeneous clinical manifestations, but their occurrence is based on different etiological and pathogenetic mechanisms. If in the first group of diseases it is of an immune nature, then in the second it is metabolic, which dictates differentiated therapeutic and diagnostic measures.

Often there is a combined form, which is based on allergenic and non-allergenic mechanisms. It occurs more often with exposure to allergens and non-allergenic compounds. This group should also include patients in whose development of the disease the action of an infectious factor plays a role, occurring simultaneously with the production factor, or joining later. Various mechanisms for triggering a non-allergic reaction to the influence of industrial factors are possible - liberation of histamine, induction of an alternative pathway of complement activation by industrial compounds, stimulation of irritant receptors of the cholinergic system, disruption of the neural regulation of bronchial tone, disturbance of arachidonic acid metabolism.

The non-allergic form is characterized by an immediate or delayed type of response to inhalation of industrial allergens and the absence of immunological changes typical for asthma. In the clinical course of non-allergic occupational asthma, a symptom of elimination and exposure is observed. Based on clinical and immunological studies, she formulated the concept of the pathogenesis of occupational asthma:

1. The presence of individual hypersensitivity (atopy or defects in the immune defense system) to the development of allergies, subject to contact at work with harmful factors of allergenic and non-allergenic action.

2. The presence of dystrophic changes in the mucous membrane of the bronchial tree, a decrease in local and general immunity, which serve as the basis for the development of various immune, non-immune and inflammatory reactions.

3. Formation of a cascade of immune reactions involving

IgE, IgG and other classes of immunoglobulins against the background of tension in the T-immune system in the form of a decrease in the level of T-helpers and T-suppressors.

4. Attachment of the 3rd type of immune reactions with the participation of complement with some antigens of the cell-mediated immune response from T-lymphocytes

Factors predisposing to pseudoallergic reactions include genetic characteristics, impaired enzymatic activity, pathology of the hematopoietic system, increased levels of immunoglobulin E, G, primary abnormalities in the complement system, concomitant

immune and autoimmune processes leading to instability of complement and activation of other immune factors, features pharmacological action of substances and stress.

Comparative studies of patients with atopic, infectious and occupational chemical asthma in 2010 in the city of Andijan, family asthma was determined in 29.3% of cases with atopic asthma, in 19% - infectious and only 5.6% - industrial chemical, which indicates the predominance of unfavorable production factors over genetic ones [9]. And, most likely, there is a mechanism of non-allergenic triggering of the disease. Liver damage is common in patients with asthma. Thus, in 27.3% of cases, hepatomegaly of varying severity was found, while in patients with occupational chemical asthma it was detected 3 times more often than with infectious asthma, and 14 times more often than with atopic asthma [10].

In patients with chemical asthma, hyperbilirubinemia, hyperurobilinuria and an increase in the activity of serum transaminases were significantly more often detected. When studying the antitoxic function of the liver using the Kwik-Pytel test in patients with chemical asthma, moderate disturbances in the synthesis and secretion of hippuric acid were found, which were found in 60.5% of cases among those examined, while significant ones - in 23.2% and only in 16.3% - no deviations from the norm were identified.

Morphological changes in liver tissue of a diffuse nature were established, corresponding to changes in chronic hepatitis. Also, in patients with chemical asthma, signs of damage to the urinary system were detected more often than in patients with other forms. These changes are associated either with irritation by chemicals of the mucous membrane of the urinary tract, or with an allergic process due to the excretion of many chemicals.

It is of great importance for practical healthcare, including for occupational medicine, to study the prevalence of true AD and pseudoallergic conditions in working people using epidemiological research methods.

CONCLUSIONS: Such studies are necessary for primary prevention, prediction of both allergic and pseudoallergic processes in order to prevent the development of occupational pathology. They are important for the development of methods of secondary prevention, early detection of sensitization in practically healthy workers, as well as risk factors for the development of pseudo-allergic conditions, the search for effective methods of treatment and rehabilitation of workers.

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