

The Spread of Allergic Disorders and Their Preventive Measures

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Annotation: This article analyzes the prevalence of allergic diseases in the world and in Uzbekistan, as well as the environmental, genetic and immunological factors that lead to their development. Some clinical forms of allergy, their pathogenesis and impact on human health are widely covered. The scientific basis of preventive measures at the collective and individual levels for the prevention of allergic diseases is also considered. The importance of protection from allergens, strengthening the immune system, compliance with hygiene standards and modern diagnostic methods is emphasized.

Keywords: Allergy, immune system, hypersensitivity, antigen, allergen, atopy, bronchial asthma, pollinosis, atopic dermatitis, anaphylaxis, prevention, ecology, diagnostics, immunoglobulin E (IgE), sensitization.

Relevance of the topic: Today, allergic diseases occur in 30–40% of the population worldwide, and this figure is increasing every year. According to the International Academy of Allergy and Clinical Immunology (WAO), by 2050, one in two people may suffer from allergies. In Uzbekistan, the number of allergic diseases is increasing sharply due to air pollution, seasonal changes, increased sensitivity to food preservatives, and medications. Especially among children, bronchial asthma, atopic dermatitis, pollinosis, food allergies, and drug allergies are taking the leading positions. This situation poses new organizational and clinical challenges for the healthcare system. Therefore, the relevance of the topic is to maintain public health, prevent diseases early, and reduce complications.

Purpose of the topic: The purpose of the article is to study the causes, pathogenesis and risk factors of allergic diseases, analyze existing clinical forms and develop comprehensive measures that will help increase the effectiveness of prevention, early diagnosis and treatment of allergies in the population. At the same time, the aim is to strengthen public health, improve the ecological situation and form a correct understanding of allergic diseases among the population.

Main part: Allergic diseases are among the fastest growing pathologies worldwide today. These diseases arise, first of all, as a result of the body's perception of common substances found in the external environment as "dangerous antigens". Every day, thousands of substances enter the human body - dust, pollen, animal skin, food proteins, medicines and even cold air, but the immune system does not accept all of them in the norm. The main reason for the increase in the prevalence of allergic diseases from year to year is the deterioration of the ecological environment, the abundance of chemical additives in the air, the departure of modern diets from naturalness and the changing human immune system.

Allergy prevalence statistics show that today every third person experiences an allergic reaction at least once in their life. This figure is much higher among urban residents than in rural areas. Since urban air is saturated with automobile exhaust, industrial waste, dust and aerosols, the frequency of exposure to allergens increases. As a result, diseases such as allergic rhinitis, bronchial asthma, atopic dermatitis and pollinosis are especially common among children and young people.

There are many forms of allergic diseases. The most common are allergic rhinitis, atopic dermatitis, bronchial asthma, food allergies and drug allergies. In allergic rhinitis, the nasal mucosa often swells

and runs, often manifested by sneezing and itching of the eyes. This disease most often worsens in the spring and summer months due to plant pollen, i.e. pollen. Bronchial asthma is characterized by recurrent narrowing of the airways, in which the patient experiences symptoms such as shortness of breath, wheezing, and restlessness at night. The number of children with asthma is increasing year by year in Uzbekistan, which worries doctors.

Atopic dermatitis is one of the most common allergic diseases in children. It is mainly characterized by redness, dryness, and constant itching of the skin. This is due to the increased production of IgE immunoglobulins in the human body and increased activity of mast cells. When it comes to food allergies, products such as milk, eggs, fish, nuts, wheat, and soy are among the most common allergens. Due to the large number of additives in modern foods - preservatives, dyes, and flavorings, the likelihood of developing allergies in children is increasing.

The mechanism of allergy development - pathogenesis - is based on complex immunological processes. Initially, the allergen enters the body and the immune system perceives it as a "dangerous substance". As a result, a period called sensitization begins. At this stage, the body produces IgE antibodies, which bind to mast cells. Upon subsequent contact, the allergen activates mast cells, causing them to release histamine, leukotrienes, and other mediators. It is these substances that cause clinical symptoms — itching, swelling, redness, and bronchospasm.

Allergic diseases not only cause clinical discomfort, but also reduce a person's quality of life, negatively affect their academic and work performance. Chronic allergic diseases in children negatively affect proper development, sleep quality, and the formation of the immune system. In particular, asthma, if not controlled in a timely manner, can lead to deterioration of the cardiopulmonary system and recurrent infections.

Therefore, measures to prevent allergic diseases are important for each person and society as a whole. Prevention is divided into primary, secondary, and tertiary levels. Primary prevention includes the formation of a healthy lifestyle, environmental protection, proper nutrition, and avoidance of early contact with allergens. A proper diet, quitting smoking, and natural nutrition are especially important for pregnant women. Reducing dust in the home, cleaning carpets more often, and avoiding mold also reduce the allergic background.

Secondary prevention is early detection of the disease. At this stage, tests such as allergy tests, skin prick tests, IgE levels, and spirometry play an important role. Early diagnosis is very effective in taking treatment measures before the disease has reached a severe stage. Tertiary prevention involves reducing the complications of the disease and preventing its recurrence. These include antihistamines, inhalation therapy, corticosteroids, and ASIT — allergen-specific immunotherapy. ASIT is currently recognized as one of the most effective methods in the world that can radically reduce allergies.

Ultimately, the topic of the spread and prevention of allergic diseases is important not only for medical workers, but also for every family and every citizen. Because proper preventive measures improve the quality of life of patients, reduce the burden on the healthcare system, and increase the overall health of society.

Conclusion: Allergic diseases are one of the most pressing problems of modern medicine, and their prevalence is increasing every year. Genetic predisposition, environmental pollution, malnutrition and weakened immune system play an important role in the development of allergies. Early detection of diseases, protection from allergens, environmental hygiene, a healthy lifestyle ensure not only individual health, but also the general well-being of society. If preventive measures are implemented in a timely manner, the consequences of allergic diseases are significantly reduced.

References:

1. World Allergy Organization (WAO). *Allergy: Global Report*.
2. Pawankar R, Canonica GW, Holgate ST. *Allergology International*.
3. Akdis CA. *Allergy and Clinical Immunology*.

4. O‘zbekiston Respublikasi SSV, Allergologiya bo‘yicha klinik protokollar.
5. G. F. Kholmatova, *Klinik Allergologiya*.
6. CDC — Centers for Disease Control and Prevention. *Asthma & Allergy Guidelines*.
7. European Academy of Allergy and Clinical Immunology (EAACI) qo‘llanmalar.