Clinical And Immunological Characteristics of Allergic Diseases in Adolescents

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Annotation: This article contains information about allergic diseases, information about the clinic of allergic diseases in teenagers.

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In our country, comprehensive measures are being implemented to reform the health care system, a number of normative and legal acts to improve specialized, urgent and urgent medical care, and activities in the field of protecting and strengthening the health of citizens have been accepted. Despite the positive results achieved, a number of works are being carried out in the field of diagnosis, treatment and prevention of allergic diseases.

Prevention, molecular diagnosis and treatment of allergic diseases based on conducting fundamental and applied research in the field of allergology by the Republican Scientific and Specialized Allergology Center of the Ministry of Health of the Republic of Uzbekistan and creation of a unified centralized system and screening programs for early detection of allergic diseases are being gradually introduced in all places. Conducting scientific-practical research in the field of allergology, innovative prevention, diagnosis and treatment of allergic diseases, in connection with the global achievements of biomedicine, which allows the introduction of positive results of science into health care practice, methods are being developed. Provision of medicines, medical supplies and medical equipment necessary for the diagnosis and treatment of allergic diseases, including allergens, reagents and consumables for diagnosis and treatment level up significant amount of work is being carried out.

Allergy (Greek: allos - other, different, stranger and ergon - effect) is a specific reaction that appears in the human body to various foreign substances with allergenic properties acting from the outside. A response to an allergen occurs immediately or gradually by showing hypersensitivity. Real and false (pseudoallergic) allergic reactions may occur in response to an allergen entering the body. Before the onset of a real allergic reaction, a certain period of time passes, during which the body's sensitivity to the substance exposed to it for the first time increases, this is called sensitization. The occurrence of sensitization depends on the appearance of special protein substances - antibodies or lymphocytes that can interact with the allergen in response to the first allergen. until the allergen is removed from the body, no symptoms of the disease are visible. if the allergen is not removed or returns to the body after it has been removed, it interacts with the above antibodies or lymphocytes and causes an allergy. as a result, a number of biochemical processes begin, many substances such as histamine, serotonin are released, damage cells, tissues and organs, thus, a reaction occurs in response to a special, that is, an allergen that has previously affected the body, and an allergic disease appears. false reactions begin when the body encounters an allergen for the first time. There is no sensitization period. The allergen that enters the body produces substances that damage cells, tissues and organs. False reactions often occur to drugs and foods. The body does not always become allergic when exposed to an allergen. Heredity, the state of the nervous and endocrine systems are important in this, because the disease is mainly caused by the dysfunction of these systems and severe mental experiences. Prevention of allergy consists in taking measures to prevent substances with a sensitizing effect from re-entering the body and disrupting the body's protective reactions [1]. Antigens: a) components of their own cell membranes (unchanged and changed under the influence of various factors); b) secondary fixed (adsorbed) antigens on cell membranes, for example, drugs; c) non-cellular components of tissues (collagen, myelin).

Symptoms of allergy to dust and dust mites are as follows:
- Runny nose;
- Itching in the eyes and nose;
- Rhinitis;
- Swelling of the eyes, tearing;
- Cough.

On the skin, for example, eczema manifests itself as follows: skin peeling, dryness, itching; red rashes.

in reaction to food products:
- Return;
- Swelling of the tongue, lips, face and throat;
- Soreness in the mouth;
- Stomach spasm;
- Breathing disorder;
- Rectal bleeding (children rarely);
- Diarrhea;

Anaphylaxis (anaphylactic shock) is a very serious, often life-threatening allergic reaction.

There are several ways to identify allergies. The doctor asks the patient questions about the origin of the allergy, when it appears, and the symptoms of the allergy. In addition, it is asked whether other members of the family have allergies.

There are a number of tests for allergies. Below are some examples

Blood test - measures the level of IgE antibodies released by the immune system. This test is sometimes called a radioallergen sorbent test (RAST).

A skin prick test is also known as a test before taking various antibiotics. The skin is scratched with the tip of the syringe and a little less allergen is applied to this place. If there is a skin reaction - itching, redness and swelling may indicate the presence of an allergy.

Patch test is used in patients with dermatitis (eczema). The required amount of suspected allergen was placed on special metal disks and attached to the belt. The doctor checks the skin reaction after 48 hours.

We can take influenza as an example of allergic diseases in teenagers.

Flu (rhinitis) — inflammation of the mucous membrane of the nose as a result of cold, infection, allergy. It can be a sign of an independent disease or an infectious disease (for example, influenza, diphtheria, measles, etc.). Influenza, the mucous membrane of the nose or throat becomes swollen, sore and dry; After 3-4 days, a large amount of liquid clear mucus comes from the nose. The general condition of the patient does not change significantly, the temperature is usually normal or slightly elevated (37-37.5°), the head becomes heavy, and the ability to work decreases; it becomes difficult to breathe through the nose, sometimes tears flow due to inflammation of the mucous membrane of the eyes, and the sense of smell decreases. Influenza is particularly severe in children who are breastfeeding. Their nasal passages are very narrow, and the slightest swelling of the nasal mucosa makes it difficult to breathe through the nose. As a result, serious changes are observed: headaches, sleep disorders, insomnia, extreme weight loss, and others. Sometimes the inflammation spreads to the mucous membrane of the nasopharynx and auditory tube, even to the larynx, bronchus and lungs. That's why you shouldn't forcefully remove the flu.

As soon as the symptoms of the disease appear, it is necessary to consult a doctor. Drink hot tea with honey or raspberry jam, drip the vasoconstrictor drops recommended by the doctor into the nose, this will reduce the swelling of the mucous membrane, as a result, the runny nose will decrease, the nose will open, and breathing will improve. It is necessary to strictly follow the treatment measures prescribed by the doctor, otherwise the inflammatory process may turn into a chronic form. The flu is not always caused by a cold or an infectious disease. Allergic or vasomotor fever often occurs (mainly in irritable people). During an attack of the disease, the patient constantly coughs, has liquid mucus from the nose, tears flow from the eyes, itches in the nose and eyelids; This form of T. sometimes attacks several times a day. A special type of allergic T. - hay fever, occurs mainly during the flowering period of spiky plants.

An acute flu can turn into a chronic flu if it occurs frequently. Chronic T. can lead to growth and thickening (hypertrophy) or thinning (atrophy) of the mucous membrane of the nasal cavity, as a result of which it becomes difficult to breathe. Therefore, it is necessary to prevent the tumor from becoming chronic. It is very important to exercise the body to prevent the flu.
Asthma (from the Greek asthma - suffocation, suffocation) is a suffocation attack caused by a sudden narrowing of the bronchial opening (see Bronchiol asthma) or heart disease (see Cardiac asthma). Immediate emergency medical care is required in case of asthma attack. Regardless of the cause of asthma, it is necessary to put the patient with his legs down and freshen the air in the room. Medication is given only with the permission of a doctor. Bronchial asthma is a chronic disease of the respiratory tract, which causes the narrowing of the bronchial tubes and reduced air flow. The most common symptoms of asthma include: bronchospasm, coughing and wheezing. Difficulty breathing due to respiratory attacks. These attacks occur especially at night and early in the morning. If the patient is treated for asthma, his symptoms may completely or partially disappear. Asthma attacks can occur when exposed to allergenic substances (dust, plant pollen, animal fur, feathers, certain types of food), physical exertion, breathing cold air, or respiratory tract infection. People prone to asthma usually chest they complain of chest tightness, excessive salivation, sleep disturbance or rapid breathing. Treatment includes taking bronchodilators (for example, steroids) used together with anti-inflammatory drugs. Physiotherapy procedures and breathing exercises should not be neglected.

In conclusion, it should be said that the human immune system responds to an allergen as a pathogen (external harmful substance) and tries to destroy it, like a foreign bacterium, virus, fungus or toxin, however, the allergen itself is not harmful, it's just that the immune system has become very sensitive to this substance. When the immune system is exposed to an allergen, it releases a type of antibodies - immunoglobulin E (IgE) - to destroy it. And it, in turn, releases chemicals that cause an allergic reaction in the body.

References:

1. Морозова Л.Н. и др. Исследование «Состояние здоровья населения, проживающего в экологически неблагоприятных городских районах» // Гигиена и санитария. 1998 г. -№1. - С.
2. Новиков С.М. и др. Оценка ущерба здоровью населения Москвы от воздействия взвешенных веществ, в атмосферном воздухе // Гигиена и санитария. 2009 г. -№6. -
3. Даутов Ф.Ф., Хакимова Р.Ф., Юсупова Н.З. Влияние загрязнений атмосферного воздуха на аллергическую заболеваемость детей в крупном промышленном городе // Гигиена и санитария. 2007. -№2.
5. Пашкевич М.А., Баркан М.Ш., Шариков Ю.В. и др. Экологические проблемы мегаполисов и промышленных агломераций // Учебное пособие. - СПб., 2010 г.