

Development, Diagnostic and Prognostic Significance of Respiratory Allergy in Children

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Annotation: This article describes the origins, development, diagnostic and prognostic significance of respiratory allergies in children.

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An allergy is a specific reaction of the child's immune system to any allergen (irritant substance), which occurs due to the body's increased sensitivity to this substance. The diagnosis and treatment of this pathological condition is carried out by an allergist.

Allergy is not a disease in the usual sense of the word. An allergy is a very strong reaction of a child's immune system that occurs exclusively upon repeated contact with an irritant (allergen). This is where the difficulty in diagnosing pathology lies. Upon first contact with an allergen, an immune reaction does not always occur. Most often, an allergy develops after the body has studied the structure of a substance unknown to it and understands whether it is "friend" or "enemy".

There are many types of allergic reactions, depending on the clinical picture and the group of substances that cause the pathology. The most common of them:

1. respiratory (breathing) allergies;
2. contact (skin) allergies;
3. food allergies;
4. insect allergy (reaction to contact with insects and their bites);
5. drug allergies;
6. infectious allergy;

Every year there are more and more children with allergic manifestations. Currently, the pathology is diagnosed in 25-30% of the population. If allergies are not treated, the child may experience serious complications: asthma, Quincke's edema, anaphylactic shock, loss of consciousness, etc.

The clinical picture of an allergic reaction directly depends on the type of pathology and the location of the pathological process.

Manifestations of skin allergies in a child include various types of rashes:

1. redness of skin areas;
2. the appearance of a rash;
3. peeling of the skin;

4. itching

This type of allergy is most common in infancy, but can persist into adulthood.

Manifestations of allergic rhinitis and hay fever:

- a) impaired nasal breathing, nasal congestion;
- b) watery nasal discharge;
- c) sneezing;
- d) itching in the nose area;
- e) Lacrimation.

The reason for the development of allergic reactions is the penetration of allergens (irritant substances) into the child's body. Substances can enter the body in three ways:

- Oral – when consuming food, various drinks.
- Respiratory - when inhaling an allergen in the air (for example, plant pollen).
- Contact – in direct contact with the allergen.

In childhood, allergies most often occur when the body comes into contact with pollen, animal hair, certain medications, insects, cleaning and detergent chemicals, as well as highly allergenic foods (whole cow's milk, eggs, nuts, chocolate, honey, etc.).

Why exactly allergies develop is still unknown to scientists. However, there are factors that significantly increase the risk of this pathology:

- Hereditary factor.
- Exposure to frequent infectious diseases.
- Poor environmental conditions in the region of residence.
- The desire of parents to create “sterile conditions” for their child to live.
- Too early introduction of complementary foods, early refusal of the mother to breastfeed.

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If a child is suspected of having an allergy, parents should definitely show the child to an allergist. The purpose of diagnosis is not only to identify pathology, but also to determine the cause of its development, i.e. identify the allergen that causes an increased immune response.

To do this, the doctor examines the small patient, talks with him and his parents, collecting an anamnesis (medical history). Then the child is sent to undergo various studies:

- Blood analysis– to measure the amount of antibodies (allergy is indicated by a significant increase in the concentration of class E immunoglobulins).
- Skin allergy tests to determine irritating allergens (prick test, scarification test, patch test, provocative test).

- Determination of external respiration function (to exclude bronchial asthma or allergic bronchitis).

In accordance with the data obtained during the diagnosis, the specialist selects the most suitable treatment tactics for each child.

The most effective way to combat allergies is to exclude your child from contact with allergens. The child should be protected as much as possible from exposure to irritating factors (contacts with chemicals, dust, tobacco smoke, etc.).

In the acute period, children are prescribed treatment depending on the type of allergy, its causes and main symptoms:

- Taking antihistamines to relieve symptoms of pathology.
- Applying anti-inflammatory and antipruritic ointments creams or gels to the skin to relieve irritation, itching and burning.
- The use of hormone-containing drugs for pronounced manifestations of allergies (usually in the form of creams or ointments).

A modern method of treating allergies is increasingly being used -allergen-specific immunotherapy (ASIT). The essence of this technique is to administer to the child a special allergy vaccine containing microdoses of an allergen substance. Over time, the volume of the drug is gradually increased, thereby training the immune system to correctly respond to the irritant substance. By the end of the course of treatment, the child's body tolerates contact with allergens much more easily. And in 90% of cases, therapy helps to completely get rid of allergy symptoms.

Allergy prevention. The modern world is considered very allergenic. Therefore, parents must adhere to a number of rules that can prevent the development of an inadequate response of the child's immune system to external or internal environmental factors. This is especially true for children with a family history.

Prevention measures are:

- long-term continuation of breastfeeding, refusal to use infant formula;
- correct introduction of complementary foods;
- refusal to consume products containing preservatives, dyes, flavors and other synthetic substitutes;
- Eating simple natural foods (meat, seasonal vegetables and fruits, cereals), avoiding complex multi-ingredient foods (sausages, industrial sauces, cakes, etc.);
- Use of hypoallergenic personal hygiene products.

Complications of allergies in children. In the absence of medical care and preventive measures, the allergic process can cause unpleasant complications. Most often, parents of young patients face the following problems:

1. frequent headaches associated with constant nasal congestion;
2. fatigue, drowsiness, deterioration in school performance;
3. scratches on the skin that can become infected;
4. eye infections due to allergic conjunctivitis;
5. Life-threatening conditions (acute reactions): angioedema, anaphylactic shock, etc. If you keep the process under control, minimize contact with allergens and take medications prescribed by your doctor in a timely manner, these complications can be avoided.

Prognosis for allergies in children. When a child first experiences allergies, it is difficult to say how the pathology will manifest itself in the future, what symptoms will occur and how often they will occur. Some children successfully outgrow the disease and do not encounter it in the future, while others remain diagnosed throughout their lives. The main thing is not to let the process take its course, act as a team with doctors and, over time, explain to the child the importance of constant monitoring of health.

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