

PATHOGENESIS AND TREATMENT OF ALLERGIC RHINITIS

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Annotation: Allergic rhinitis is a disease that develops as a result of contact of allergens with the nasal mucosa. The main symptoms of the disease are itching in the nasal cavity, sneezing, difficulty in nasal breathing, mucous discharge from the nose. As part of the diagnosis of the causes of allergic rhinitis, consultations of specialists (allergologist-immunologist, otolaryngologist), skin tests, determination of general and specific IgE (allergological panels), rhinoscopy are carried out. Treatment with antihistamines, intranasal glucocorticoids or cessation of allergen exposure leads to a rapid disappearance of symptoms of the disease.

Key words: allergic rhinitis, inflammation, the nose, blood.

Allergic rhinitis is an inflammatory reaction of the nasal mucosa to the action of an allergen, a manifestation of pollinosis. It can occur seasonally or year-round. It is manifested by congestion, swelling, itching and tickling in the nose, copious discharge of mucus, sneezing, lacrimation, decreased sense of smell. Prolonged course can lead to the development of allergic sinusitis, nasal polyps, otitis media, nosebleeds, persistent violation of the sense of smell, bronchial asthma. Allergic rhinitis is widespread. According to various data, from 8 to 12% of all inhabitants of the Earth suffer from this form of allergy. It usually develops at a young age (10-20 years). At an older age, the severity of the manifestations may decrease, but patients, as a rule, are not completely cured.

Reasons

Allergic rhinitis usually develops in people with a hereditary predisposition to allergic diseases. The family history of patients often mentions bronchial asthma, allergic urticaria, diffuse neurodermatitis and other atopic diseases that one or more family members suffered from.

The most common cause of the development of seasonal rhinitis of allergic etiology is pollen from grasses (family of haze, compound flowers, cereals) and trees. In some cases, seasonal allergic rhinitis is caused by fungal spores. Patients often believe that the disease is caused by poplar fluff. However, in fact, rhinitis is usually provoked by pollen from plants whose flowering coincides with the appearance of poplar fluff. The seasonality of the annual manifestation of the disease depends on the climatic characteristics of the region and practically does not change from year to year. Year-round allergic rhinitis occurs with constant contact with particles of the epidermis of animals, various chemical compounds and household dust, which contains micro-mites.

Classification

There are two main forms of the disease:

Seasonal allergic rhinitis. The most common form. Usually manifests at a young age. Symptoms of the disease appear at certain times of the year and are most often caused by contact with pollen from certain plants.

Year-round allergic rhinitis. It is mainly women of mature age who suffer. Symptoms of year-round rhinitis are expressed throughout the year or periodically occur regardless of the season. The disease is caused by allergens that are constantly present in the environment.

Symptoms

Allergic rhinitis is characterized by prolonged sneezing attacks that occur in the morning and at the time of contact with the allergen. Due to the incessant itching, patients constantly scratch the tip of their nose, which sometimes causes a transverse fold to appear on the back of the nose over time. Constant nasal congestion with the development of allergic rhinitis leads to the fact that patients breathe mainly through their mouth. Allergic rhinitis is accompanied by watery discharge from the nasal cavity, lacrimation and unpleasant sensations in the eyes. Chronic stagnant processes lead to a decrease in sense of smell and loss of taste sensations.

The nasal mucosa in allergic rhinitis is pale and loose. Hyperemia and peeling of the skin in the nostrils are not observed. In some cases, conjunctival redness is noted. Pharyngeal changes are not typical for this disease, but sometimes there is slight or moderate hyperemia.

Complications

Year-round allergic rhinitis is often complicated by a secondary infection caused by blockage of the paranasal sinuses due to mucosal edema. Otitis media or sinusitis may develop. With seasonal rhinitis, such complications are extremely rare. With a prolonged course of the disease, polyps of the nasal mucosa often develop, which further clog the openings of the paranasal sinuses, making it difficult to breathe and aggravating the course of concomitant sinusitis.

In the process of diagnosing seasonal allergic rhinitis, a detailed medical history is of great importance. There is a periodic manifestation of symptoms of the disease associated with the flowering period of certain trees and grasses.

In the diagnosis of year-round allergic rhinitis, anamnestic data are of less value. Frequent contact with an allergen leads to the fact that the symptoms of allergic rhinitis are constantly expressed, so it is usually not possible to determine which allergen caused the disease. Sometimes an allergic reaction to certain stimuli is manifested by a number of differences in the clinical picture of the disease, which allows you to pre-determine the nature of the allergen.

Patients with suspected allergic rhinitis should be examined by an otolaryngologist with rhinoscopy. An allergist's consultation with special tests is also indicated. The simplest test to accurately determine the cause of an allergy is a skin allergy test. The study is based on the binding of the stimulus to mast cells. It should be borne in mind that in some cases, a false positive result is possible during a skin test. In case of a negative skin test and the presence of anamnestic data indicating sensitization of the body to the allergen, an intradermal test is

sometimes performed. The reliability of the result of an intradermal test is lower due to possible concomitant nonspecific irritation at the injection site.

The allergic nature of rhinitis is confirmed by the detection of the number of eosinophils in the blood test and nasal smear. An increase in the number of neutrophils in blood tests and discharge from the nasal cavity indicates a secondary infection. It is possible to conduct an immunosorbent assay with an enzyme label to determine the level of antibodies produced to certain allergens.

Year-round rhinitis of an allergic nature often has to be differentiated from ordinary vasomotor rhinitis. The clinical picture of the diseases has a lot in common, however, vasomotor rhinitis, unlike allergic rhinitis, develops upon contact with non-specific stimuli. In some cases, symptoms similar to the clinical picture of year-round allergic rhinitis cause some diseases of the upper respiratory tract of an infectious nature, anatomical defects, inhalation of a number of substances, constant use of drugs for the treatment of rhinitis, treatment with estrogens and beta-blockers.

Treatment of allergic rhinitis

Therapy for allergic rhinitis is determined by the severity and form of the disease. In mild allergic rhinitis, antihistamines (cetirizine, fexofenadine, desloratadine, loratadine, etc.) or intranasal glucocorticoids (budesonide, fluticasone, etc.) are prescribed. In severe allergic rhinitis and moderate disease, intranasal glucocorticoids in combination with leukotriene antagonist drugs (zafirlukast, sodium montelukast) or antihistamines by means of. When taking antihistamines of the first generation, it is necessary to take into account the side effects of M-cholinoblocking (arrhythmia, urinary retention, blurred vision) and sedative effects of drugs.

Severe nasal congestion is an indication for the appointment of vasoconstrictive drugs of local action, however, patients are not recommended to abuse drugs of this group due to the danger of developing medicinal rhinitis. Patients with some forms of allergic rhinitis are advised to follow a special diet. For example, patients with allergy to hazel pollen should exclude hazelnuts and hazelnuts from the diet, patients with allergic rhinitis caused by birch pollen – apples, etc. The diet is due to the possibility of cross-reaction.

If there are contraindications to taking medicines and insufficient effect of treatment, hyposensitization to certain allergens (ASIT) is possible. Treatment consists in administering gradually increasing doses of allergen extract under the patient's skin. The full course of desensitization lasts from 3 to 5 years. Allergen injections are given once every 1-2 weeks. Due to the risk of developing an anaphylactic reaction, the patient is monitored for 20 minutes after injection. A local reaction to the injection is possible, which manifests itself in the form of a seal or erythema. Desensitization is contraindicated in severe bronchial asthma and a number of cardiovascular diseases.

With the ineffectiveness of conservative methods of treatment of allergic rhinitis and its persistent course, surgical intervention on the nasal concha - vasotomy is possible. The operation is performed with a nasal access under local anesthesia.

Prevention

The only really effective preventive measure for allergic rhinitis is to eliminate contact with the allergen that caused the development of the disease as completely as possible. In case of allergic rhinitis caused by animal skin cells, it is necessary to remove the animal from the house, in case of allergies provoked by grass pollen and fungal spores, a change of residence or installation of air filters in the room will be required.

Patients with allergic rhinitis caused by dust mites should ensure low humidity in the apartment, remove curtains and carpets from the house, cover pillows, mattresses and quilts with plastic covers. It is recommended that all patients with allergic rhinitis avoid contact with non-specific irritating substances (tobacco smoke, pungent odors, lime dust).

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