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ETIOLOGY , PATHOGENESIS AND TREATMENT OF ALLERGIC RHINOSINUSOPATHY

Baykhanova N.T.

Assistant , department of infectious diseases Andijan State Medical Institute Uzbekistan, Andijan

Annotation: Allergic rhinosinusopathy is an inflammatory disease of an allergic nature, in which there is a lesion of the nasal mucosa and one or more paranasal sinuses. It is manifested by a violation of nasal breathing, runny nose, sneezing attacks, headaches, as well as symptoms of damage to the bronchopulmonary system. Diagnosis is based on the data of clinical examination by an ENT doctor and an allergist-immunologist, the study of the results of allergic tests, X-ray and endoscopic examination of the paranasal sinuses. Complex treatment: antihistamines, anti-inflammatory therapy, allergen elimination, specific immunotherapy.

Key words: Allergic rhinosinusopathy, inflammatory disease, headaches, allergic lesion, paroxysmal rhinorrhea.

Allergic rhinosinusopathy (allergic rhinosinusitis) is a pathological condition caused by an allergic lesion of the nasal mucosa and its paranasal sinuses, manifested by difficulty in nasal breathing, paroxysmal rhinorrhea, sneezing and other symptoms. The disease develops with a violation of the reactivity of the body, its immune system, rarely occurs in isolation and, as a rule, is accompanied by allergic inflammation of other organs and systems (pharynx and larynx, bronchi and lungs, eyes, skin).

Allergic rhinosinusopathy occurs in 10-20% of the population, more often in children, as well as in young people aged 18-24 years. In the United States of America, more than 35 million people with symptoms of allergic lesions of the nasopharynx and paranasal sinuses seek medical attention annually, and the cost of their treatment is more than seven billion dollars a year. No less urgent is the problem of allergic rhinosinusopathy, its qualified diagnosis and treatment in Russia and other countries of the former USSR. Timely contact with an allergist-immunologist and otolaryngologist can prevent complications (the transition of rhinosinusitis to a chronic form, the development of bronchial asthma, etc.).

The development of allergic rhinosinusopathy is often caused by a hereditary predisposition (increased reactivity of the immune system to stimuli with the development of an IgE-dependent allergic reaction). In this case, you can detect the presence of allergic conditions (rhinitis, atopic dermatitis, bronchial asthma) in the patient's relatives.

The main reason for the development of allergic rhinosinusopathy is the exposure of the nasopharyngeal and paranasal sinus mucosa to plant allergens (pollen from flowering grasses and trees), pathogens, household dust, and various chemicals contained in the inhaled air (including household chemicals, tobacco burning products, etc.). Among the possible causal factors should be taken into account also food and drug allergens.

Often allergic rhinosinusopathy develops with prolonged inhalation exposure to various irritating substances during work associated with occupational hazards (coal miners, drillers, employees of foundries, chemical and pharmaceutical enterprises, painters, etc.).

Pathogenesis

Allergens, initially entering the respiratory tract, cause sensitization (increased sensitivity) of the nasal mucosa and paranasal sinuses. Repeated exposure to the same allergen leads to an inflammatory IgE-dependent reaction with infiltration of the nasopharyngeal mucosa. The resulting swelling of the mucous membrane makes it difficult for the sinuses to communicate with the nasal cavity and causes the development of allergic rhinosinusopathy, which quickly turns into

a chronic form. With a prolonged course of the disease, increased reactivity begins to develop not only for incoming allergens, but also for any substances that irritate the nasopharyngeal mucosa.

Classification

According to the nature of the appearance of symptoms and their duration, there are several forms of allergic rhinosinusopathy: acute episodic, seasonal, and year-round (persistent):

- Acute rhinosinusitis. Acute and rapidly passing symptoms of allergic inflammation of the nasal cavity and paranasal sinuses are observed with episodic (rare) contact with inhaled allergens (most often these are products of animal and bird life that enter the respiratory tract accidentally, once).
- Seasonal rhinosinusitis. Allergic rhinosinusopathy is characterized by the appearance of typical symptoms of nasopharyngeal lesions during the flowering period of plants.
- Persistent rhinosinusitis. It occurs at least nine months a year.

Symptoms of allergic rhinosinusopathy

Characteristic signs of rhinosinusitis are difficulty in nasal breathing, paroxysmal copious discharge of mucous watery secretions from the nasal tract and sneezing attacks. At night, sneezing decreases and nasal congestion increases. Often bothered by a feeling of heaviness in the head and in the paranasal region.

In the chronic course of allergic rhinosinusopathy, the headache can bother almost daily, increasing when the head is tilted down. Infection of the upper respiratory tract mucosa leads to the development of an acute inflammatory process in the sinuses (the maxillary sinuses and cells of the ethmoid labyrinth are more often affected). At the same time, there are symptoms of a violation of the general condition with an increase in body temperature, chills, general weakness, sleep and appetite disorders, irritability, mood swings.

Complications

Increased reactivity of the immune system with the development of hypersensitivity in response to the penetration of allergens is a common reaction of the body, which often leads to generalization of the process and the appearance of foci of allergic inflammation in other organs and tissues. At the same time, along with allergic rhinosinusopathy, there are often symptoms of damage to the bronchopulmonary system – cough with sputum that is difficult to separate, a feeling of lack of air, suffocation (with bronchial asthma). On the skin, you can detect the appearance of foci of recurrent urticaria, atopic dermatitis.

Diagnostics

To detect allergic rhinosinusopathy, an initial clinical examination of the patient by an allergist-immunologist and an ENT doctor is necessary. At the same time, the medical history, data from rhinoscopy, instrumental examination, and allergic tests are studied. When examining the nasal cavity during an acute period, edema of the lower nasal concha is noted, often of the middle nasal passage, mucous or mucopurulent discharge. In a chronic process, polypous growths in the nasal passages and sinuses are often found.

Radiography of the paranasal sinuses reveals the presence of parietal thickening of the mucous membrane, an unstable decrease in the transparency of the sinus, and in chronic allergic rhinosinusopathy and the presence of polyps – persistent darkening of the sinus. Diagnostic sinus puncture allows you to clarify the nature of the flushing fluid (with an allergic process, it is clean, without signs of purulent inflammation). The diagnosis of allergic rhinosinusopathy is confirmed by positive allergological tests (skin allergotests, study of specific immunoglobulins). Differential diagnosis is performed with viral and bacterial rhinosinusitis, vasomotor rhinitis.

Treatment of allergic rhinosinusopathy

Treatment of rhinosinusitis of allergic origin includes allergen elimination, drug therapy using intranasal glucocorticosteroids and antihistamines, as well as specific immunotherapy.

- Elimination measures, that is, ensuring the maximum reduction of contact with allergens, are carried out for seasonal rhinosinusopathy by limiting the time spent outdoors, using air conditioning systems. The main fight against household and household allergens (dust, insects, animal waste products, mold fungi) is carried out by regular cleaning of residential premises, maintaining sufficient humidity in the rooms.
- Drug therapy of allergic rhinosinusopathy involves the use of local (intranasal) glucocorticosteroids (beclomethasone, budesonide, fluticasol, mometasone), second-and third-generation antihistamines (cetirizine, loratadine, fexofenadine, desloratadine), cromones (cromoglycic acid).
- Specific immunotherapy is an effective method of treating allergic lesions of the upper respiratory tract. In ASIT, parenteral administration of gradually increasing doses of the allergen is performed (the scheme of administration is made individually). The duration of specific immunotherapy for allergic rhinosinusopathy can range from several months to 3-4 years.

If there is a pronounced pathology of the paranasal sinuses and hypertrophy of the nasal concha, ineffectiveness of conservative treatment, surgical intervention can be performed.

Prognosis and prevention

Timely detection and proper treatment of allergic rhinosinusopathy can eliminate the symptoms of the disease and prevent the appearance of complications. With the development of concomitant allergic diseases, the question of changing your place of residence or profession may arise. The preventive direction is to exclude contact with potential allergens and occupational hazards. At the first sign of respiratory allergies, a comprehensive allergological examination is necessary.

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