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A MODERN APPROACH TO THE COMPLEX TREATMENT OF ALLERGIC RHINITIS

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Abstract. The primary task of otorhinolaryngologists and allergists-immunologists is to restore unlabored nasal breathing in such patients. Symptomatic therapy includes administration of vasoconstrictor drugs, anticholinergics, cromons, local and systemic antihistamines, leukotriene receptor blockers, topical and systemic glucocorticosteroids (GCS), sorbents, pre- and probiotics. Despite the fact that the symptomatic therapy methods cannot provide a long-lasting effect after cancellation, local symptomatic treatment of allergic rhinitis using topical corticosteroids is generally accepted and widely used in the otorhinolaryngology practice. Flixonase is one of the topical corticosteroids that are often prescribed for allergic rhinitis. The aim of our paper was to evaluate the effectiveness of the treatment regimen of allergic rhinitis using Flixonase as a local GCS. 24 people with perennial allergic rhinitis aged from 19 to 38 years were under our observation. The following therapy was prescribed to the patients: decongestants, rinsing the nasal cavity with saline (saltwater) solutions, corticosteroids (Flixonase), mild sedatives. Flixonase showed its efficacy in our study.

Keywords: allergic rhinitis, intranasal glucocorticosteroids, hay fever, eosinophilia, elimination therapy

Introduction. The problem of allergic rhinosinusopathy is one of the most urgent in modern rhinology. It has been attracting the attention of clinicians for several decades [1-3, 5]. If, relatively recently, the cause of the disease was a temporary exposure to natural allergens [3, 6, 7, 10], in recent years, in the vast majority of cases, allergic rhinosinusopathy is associated with the deterioration of the environmental situation, with the excessive use of synthetic drugs, food additives, preservatives, i.e. substances that do not occur in nature, to which man is not evolutionarily adapted [1, 2, 11, 12, 13, 14, 15, 16].

Thus, the development of effective treatment regimens for the above pathology, using modern medications and traditional therapies, is relevant in otorhinolaryngology today. The main task in the treatment of allergic rhinosinusopathies is to search for drugs that could give a long-term positive effect, contribute to the remission of the disease, and also significantly improve the quality of life of such patients.

Currently, doctors most often in clinical practice encounter the following forms of allergic rhinitis: pollinosis (allergic rhinitis caused by sensitization to pollen allergens) and year-round allergic rhinitis. A separate group includes occupational allergic rhinitis (hereinafter referred to as AR). The pathogenesis of AR is based on an immediate allergic reaction caused by inhalation of allergens on the nasal mucosa [3, 7, 9, 12, 17, 18, 19, 20, 21, 22, 23].

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The main symptoms of AR are mucous discharge from the nasal cavity, nasal congestion, difficulty in nasal breathing up to a complete block, as well as sneezing in the form of seizures, burning in the nasal cavity, headaches and decreased performance. Manifestations of AR are preceded by prolonged contact of the nasal mucosa with allergens, leading "to the presentation of these allergens to CD4+ lymphocytes mediated by allergen-presenting Langerhans cells" [2-4]. In sensitized individuals, as a result of immunological processes, lymphocytes begin to secrete cytokines of different classes (IL 3, IL 4, IL 5, GM-CSF), which eventually leads to increased production of IgE by plasma cells, proliferation of mast cells and eosinophils [1, 2, 6, 9, 10, 24, 25, 26, 27, 28].

Symptoms of AR appear even in childhood, which negatively affects the overall development of the child, his ability to adapt to society and learning. Such children are prone to rapid fatigue, have difficulty concentrating on classes in the garden and school, are irritable, capricious [3, 5, 8, 9].

There are studies according to which AR increases the risk of developing bronchial asthma, chronic sinusitis, exudative otitis media and other ENT diseases [3, 4, 7, 11, 29, 30, 31, 33].

Thus, according to the degree of prevalence, medical and social significance, impact on the health and quality of life of patients, the problem of AR is considered one of the most urgent [2, 10].

The main directions in the treatment of AR are to increase the duration of remission of the disease, patient education, prevention of relapses. Restoration of free nasal breathing in such patients is the primary task of otorhinolaryngologists and allergists.

Currently, there are many different schemes and methods of AR treatment that alleviate the patient's condition and restore nasal breathing, but in most cases only for a short time. Therefore, an urgent issue in the treatment of AR is the search for modern therapies to achieve long-term remission, taking into account the pathophysiological mechanisms of the development of the disease both at the level of the nasal mucosa and at the level of all airways.

Non-drug and medicinal methods are used for the treatment of AR. Non-drug treatment includes elimination therapy and compliance with a hypoallergenic diet, ensuring regular stools. Taking into account the pathogenesis of the disease, it is fundamentally important in the therapy of AR to limit or exclude the contact of patients with established allergens. Accordingly, the need for such measures as daily wet cleaning of residential and office premises, careful ironing of bed and underwear, removal of carpets, feather pillows and wool blankets from residential areas must be voiced by the doctor when talking with the patient.

Medical methods of treating AR include symptomatic and pathogenetic drugs. Daily (2-3 times a day) rinsing of the nasal cavity with sea water improves the work of the cilia of the ciliated epithelium and, consequently, prevents the penetration of

allergens into the stroma of the nasal mucosa. Washing can also be carried out with saline solutions, fresh water, ozonated water, natural mineral waters. With severe congestion, it is possible to use hypertonic saline solutions.

For symptomatic therapy, vasoconstrictors, anticholinergic drugs, cromons, local and systemic antihistamines, leukotriene receptor blockers, tropical and systemic GCS, sorbents, pre- and probiotics are used [1, 2, 5, 7, 12]. If necessary, subaqual intestinal lavage, halocamera, spa treatment are prescribed. If the patient has a compression nebulizer, inhalation procedures at home are useful.

Pathogenetic therapy – allergen-specific immunotherapy with causally identified allergens, can suspend the process of developing an allergic disease. This therapy is carried out by immunologists.

Symptomatic therapy should be selected strictly individually, taking into account the severity of the disease, the living and working conditions of the patient, the individual tolerability of prescribed medications, the personal characteristics of the patient in terms of adherence to the doctor's recommendations.

Despite the fact that the methods of symptomatic therapy cannot provide a long-lasting effect after their cancellation, local symptomatic therapy of allergic rhinitis with topical corticosteroids is generally accepted and is widely used in the practice of otorhinolaryngologists. One of the most commonly prescribed for topical GCS is the drug Flixonase.

The pharmacological effect of the drug is anti–inflammatory, decongestant, antiallergic.

The anti-inflammatory effect is realized as a result of interaction with GCS receptors. Flixonase suppresses the proliferation of mast cells, eosinophils, lymphocytes, macrophages, neutrophils. Fluticasone propionate reduces the production of inflammatory mediators and other biologically active substances (histamine, leukotrienes, cytokines) during the early and late phases of an allergic reaction. Restores the patient's reaction to bronchodilators, allowing to reduce the frequency of their use. Reduces sneezing, itching in the nose, runny nose, nasal congestion, unpleasant sensations in the paranasal sinuses and a feeling of pressure around the nose and eyes. In addition, it relieves ocular symptoms associated with AR [3, 11, 12].

Method of administration and dosage: Intranasally. For adults and children over 12 years of age, the recommended dose for the prevention and treatment of AR is 2 injections into each nasal passage 1 time a day, preferably in the morning (the total dose is 200 mcg / day). After achieving symptom control, the dose can be reduced to 1 injection into each nostril 1 time per day (100 mcg / day). In some cases, 2 injections into each nasal passage 2 times a day (a total dose of 400 mcg / day) for a short time in order to achieve control over symptoms, after which the dose can be reduced. The maximum daily dose (total dose 400 mcg / day) is no more than 4 injections into each nasal passage. Elderly patients: the usual dose for adults.

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Children aged 4-12 years for the prevention and treatment of seasonal AR – 1 injection (50 mcg) in each nasal passage 1 time a day. The maximum daily dose (total dose of 200 mcg / day) is no more than 2 injections into each nasal passage. To achieve a full therapeutic effect, regular use of the drug is important. The drug may not give an immediate therapeutic effect, maximum relief occurs after 3-4 days of treatment [2, 4, 6, 9].

The purpose of our work was to evaluate the effectiveness of the AR treatment regimen using local GCS in the form of the drug Flixonase.

Material and methods. We observed 24 people with year-round AR aged from 19 to 38 years. It is known from the anamnesis of life that patients suffer from chronic AR from early childhood. Prior to the study, patients complained mainly of impaired nasal breathing, often complete obstruction of the nasal passages, itching in the nose, sneezing, nasal discharge, impaired sense of smell, lacrimation, itchy eyelids, facial swelling, sleep disturbance, fatigue, irritability. During endoscopy of the nasal cavity, almost all patients had a powerful swelling of the mucous membrane, cyanotic coloration of the mucous membrane of the nasal shells, an abundant amount of watery mucous discharge in the lumen of the nasal cavity. The level of peripheral blood eosinophilia was 7.3 ± 6.2%, in the target organ (nasal mucosa), the maximum level of allergic inflammation and the number of eosinophils in smears reached up to 43%.

Patients were prescribed therapy: decongestants, nasal lavage with saline solutions, GCS (Flixonase), mild sedatives.

Clinical case: patient K., 42 years old, an office worker, complained of stuffiness in the nose and ears, noisy breathing, poor sleep and decreased performance. He considers himself ill for five years, the disease is associated with moving to St. Petersburg from the Southern Federal District of Russia. With a more detailed history collection, it turned out that the patient suffered from atopic dermatitis in childhood, and bronchial asthma in the maternal family. Notes the deterioration of interpersonal relations in the family due to the accusation of noisy breathing and snoring. She was treated by an acupuncturist, repeatedly took spa treatment in the area of Caucasian Mineral Waters, washed her nose with herbal decoctions, saline solutions, used a haloingalator at home, vasoconstrictor drops during the day and at night. She noted an unstable improvement in nasal breathing.

On examination, a slight curvature of the nasal septum in the anterior sections is determined, the lower nasal conchs are edematous, the mucous membrane is pale, there is a scanty mucous discharge in the nasal cavity, and in the nasopharynx there is a runoff of mucus in the form of small strips. The patient underwent computed tomography of the nasal sinuses, which revealed insignificant swelling of the mucous membrane of both maxillary sinuses. When examining the function of external respiration, latent bronchospasm was revealed. The rest of the ENT organs are without features. In the clinical analysis of the patient's blood, eosinophilia and

lymphocytopenia were determined. A significant increase in the number of eosinophils (13% of the total number of leukocytes in the smear), as well as the redistribution of the epithelium in favor of mucus-secreting cells was determined in smear prints from the nasal cavity.

The patient was diagnosed with "year-round allergic rhinitis, concomitant latent bronchospasm". It was prescribed: rinsing the nasal cavity with alkaline mineral water, Flixonase with detailed instructions for use (before injection, clean the nasal cavity, shake the bottle before use, press the nose wing on one side and insert the tip into the other nasal passage. Tilt your head forward, continue to hold the tip vertically. Make a single press to spray the drug on inspiration. Exhale through the mouth. Also repeat on the other side) – the course is 14 days. A 10% infusion of motherwort herb was also prescribed as a sedative and decongestant, Afobazole to improve sleep, 1 tablet per day for 1 month.

Results. After the treatment, the patient's condition improved significantly, the patency of the nose for breathing was restored. Sleep has normalized and family relations have improved. Thus, complex treatment with the inclusion of Flixonase has shown its effectiveness. The patient was examined after 3 and 6 months. When repeated examination of smears-prints from the nasal cavity, the number of eosinophils did not exceed the norm (4% according to the rhinocytogram), when examining the function of external respiration, latent bronchospasm was not detected. From time to time there was a slight difficulty of nasal breathing in the morning. In general, the patient noted an improvement.

Conclusion. The medical and social significance of allergic diseases, including AR, requires the search for new effective methods of treatment. Taking into account the pathogenetic mechanisms of Art therapy of this disease should be carried out jointly by otorhinolaryngologists and allergologists-immunologists to achieve long-term remission. Symptomatic treatment of allergic rhinitis with topical GCS is generally accepted and is widely used in the practice of ENT doctors. The drug Flixonase in our study has shown its effectiveness.

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