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An Integrated Approach to Diagnosis and Treatment of Allergic Rhinitis

Khatamov J. A., Khatamova N. O.
Samarkand state medical university

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ABSTRACT

A study was conducted on 40 patients aged 18 to 60 years who were diagnosed with allergic rhinitis. As part of the study, allergy histories were collected, objective data were obtained, an endoscopic examination of the nasal cavity was performed, as well as cytological and bacteriological examination of smears from the nose and nasopharynx. The patients received complex treatment for allergic rhinitis, including elimination, hyposensitizing, immune, antifungal and local therapy, as well as surgery for resection of the nasal septum with vasotomy of the inferior turbinates. As a result, pronounced positive effects were obtained in 73.7% of patients, an insignificant effect in 22.8%, and 3.5% of patients did not receive a positive effect from the treatment.

Relevance of the problem. Allergic rhinitis is a disease that is accompanied by at least two of the following symptoms every day: nasal discharge, congestion, sneezing and nasal tickling. Recently, there has been a constant increase in the prevalence of allergic rhinitis. Allergic rhinitis affects from 25% to 40% of the world's population [1,4,7,10,13,16,18,21]. According to foreign and domestic scientists, allergic rhinitis is observed in 32.7% of all patients with allergic diseases [2, 5, 8,11,14,17,19, 20]. Many patients also experience symptoms of asthma. In mild cases, allergic rhinitis causes some discomfort, but in severe cases it can lead to loss of ability to work. It may also be accompanied by headache, fatigue and difficulty concentrating. These symptoms can be tiresome and irritating and can have a negative impact on the patient's overall health.

According to many researchers, fungal flora is playing an increasingly significant role in disease, and it has been concluded that fungi are one of the major allergens that can be inhaled. The most common fungi found in the upper respiratory tract are Candida, especially C. albicans, as well as Aspergillus and Penicillium.[5].

Allergic rhinitis is caused by an increase in immunoglobulin E (IgE) levels and is classified as a type I allergic reaction according to the Gell and Coombs classification. Immediate hypersensitivity results in itching, sneezing and nasal discharge that is watery in nature. These symptoms develop due to IgE-dependent mast cell degranulation in the nasal mucosa [3, 6, 9,15].

The purpose of this work is to study the clinical manifestations and effectiveness of complex treatment of allergic rhinitis.

Materials and methods of research. We observed 40 patients with allergic rhinitis. Among them were 24 men and 16 women aged from 18 to 60 years. To establish the diagnosis, we used

anamnesis, objective data, anterior rhinoscopy, endoscopic examination of the nasal cavity, radiography, computed tomography of the paranasal sinuses, and laboratory blood tests. In addition, we carried out a functional study of the condition of the nasal mucosa, a cytological analysis of smears from its surface and a bacteriological study of smears from the nasal cavity and nasopharynx.

According to the anamnesis, most patients suffered from seasonal allergies. An endoscopic examination of the nose revealed a deviated nasal septum in 24 patients, nasal polyposis in 4 patients, and catarrhal rhinosinusitis in 12 patients. An increased number of eosinophils was noted in the peripheral blood and nasal mucosa. Bacteriological examination of smears from the nasal cavity and nasopharynx revealed the presence of Candida fungi in 18 patients and Aspergillus fungi in 6 patients.

The complex treatment of allergic rhinitis includes various methods, such as elimination therapy, immunotherapy, desensitization therapy, local therapy, physical therapy and surgery.

The goal of elimination therapy is to remove allergens and control the environment. These measures help reduce symptoms and the development of inflammatory reactions. One of the successfully used drugs in the framework of elimination therapy is Aqua Maris in the form of an aerosol, which contains a sterile isotonic solution of sea water. The drug is used 1 dose in each nasal passage twice a day.

The drug ribomunil was used for immunotherapy. This drug activates both humoral and cellular immunity, and also stimulates factors of nonspecific resistance of the body. It is recommended to take three tablets on an empty stomach once a day. In the first three weeks, apply daily, starting with the first four days of each week. This treatment method leads to an increase in the level of specific IgE blocking antibodies in the blood, reduces the manifestation of allergic reactions on the skin and cellular reactivity.

The most important treatment for allergic rhinitis currently is drug therapy. In the treatment of allergic rhinitis, antihistamines remain the main class of drugs. They are highly effective when taken regularly because they block receptors before histamine is released. Sedative effects are the most common adverse reactions. However, new antihistamines such as Loratadine and Eden have a minimally reduced hypnotic effect.

In addition to antihistamines, the antifungal agent fucis 50 mg, taken 1 tablet once a day for 7 days, has been successfully used in the treatment of allergic rhinitis.

To improve nasal breathing, Evkazolin AQUA spray was used as a nasal decongestant. Modern topical corticosteroids are very effective in the treatment of allergic rhinitis. We used Forinex (mometasone furoate) in the nose in the form of a spray, which is an aqueous suspension for intranasal use. Forinex has a strong anti-inflammatory and anti-allergic effect, relieves swelling and redness.

The effect of the drug appears after 1-2 weeks of use. It is recommended to take 2-3 drops into each nasal passage 3 times a day. In addition, the following physiotherapeutic procedures were carried out: endonasal electrophoresis with hydrocortisone or low-intensity laser therapy for 10 days.

24 patients with a deviated nasal septum underwent surgical treatment, which included septoplasty with vasotomy of the inferior turbinates. Also, 4 patients underwent nasal polypotomy. Anti-inflammatory treatment was performed in 12 patients with catarrhal rhinosinusitis.

Results and its discussion. To determine the effectiveness of treatment in patients with allergic rhinitis, assessments were carried out at 7, 14 days and a month after the end of therapy. For this

purpose, data from a general clinical examination and functional methods were used. The main clinical symptoms of allergic rhinitis, such as nasal congestion, prolonged cough, nasal discharge, snoring and nasal voice, were assessed. The results showed a clear positive effect of complex treatment of allergic rhinitis in our patients.

Thanks to the treatment of allergic rhinitis, we observed a faster and noticeable reduction in symptoms of the disease within a week. Subjectively, all patients noted improved nasal breathing, decreased cough intensity, and a noticeable reduction in sneezing, itching, and nasal discharge. It is important to note that in no case was individual intolerance to the drugs used, including Aqua Maris, recorded.

Within a week, under the influence of complex therapy, patients noted an improvement in their general condition, a return to working capacity and a reduction in general symptoms of the disease. During endoscopic examination of the nasal cavity, swelling of the mucous membrane was noticeably reduced or completely disappeared, the volume of the nasal turbinates decreased, the lumen in the nasal passages increased, and there was no or a small amount of discharge.

It was noticed that, in the blood and mucous discharge from the nose, the number of eosinophils decreased to normal. A bacteriological examination of swabs from the nose and nasopharynx did not reveal fungi of the genus Candida and Aspergillus.

In patients after treatment, positive dynamics of the clinical condition were noted. The functional state of the nasal mucosa, respiratory, olfactory and transport functions have improved significantly.

Based on the results of endoscopic examinations, a stable result was noted after a month, manifested in the complete disappearance of clinical symptoms. 73.7% of patients had a positive effect of treatment, 22.8% had a slight effect, and 3.5% of patients did not achieve the expected result.

Conclusions: In the treatment of allergic rhinitis, it is necessary to use an integrated approach that is aimed at addressing the underlying causes of the disease. In addition to drug therapy, surgical intervention in the nasal cavity in patients with allergic rhinitis helps to remove obstructions, improve breathing and normalize the condition of the nasal cavity.

In conclusion, the growing prevalence of allergic rhinitis requires further research into its causes and mechanisms of development to develop prevention and treatment of this disease.

Literature

1. Aliev V.Sh. “Symptoms of allergic skin diseases in persons suffering from persistent allergic rhinitis” Journal of Dentistry 2005; 1:44-45.
2. Baranov A.A., Khaitov R.M. (ed.) Allergology and immunology. M.: 2011. 256 p.
3. Goryachkina L.A., Drobik O.S., Nasunova A.Yu. Hay fever: a modern view of the problem. Journal of Family Medicine, 2012, 1: 10-16.
4. Emelyanov A.V., Ilyina N.I., Karneeva O.V., et al. Unresolved issues in the management of patients with severe allergic rhinitis and polypous rhinosinusitis. Possibilities of anti-IgE therapy. Russian otorhinolaryngology. 2020;3(106):88-99.
5. Kunelskaya V.Ya., Machulin A.I. and others. “Treatment of fungal infections of the upper respiratory tract.” West. otorinolar.2008; 2: 78-80.
6. Lopatin A.S. Diagnosis and treatment of rhinitis and rhinosinusitis in pregnant women. Russian Allergological Journal, 2006, 1: 74-78.
7. Leonova M.V. Modern antihistamines: the choice is abundant. Farmateka, 2014, 16: 26-32.

8. Nenasheva N.M. Modern approaches to the diagnosis and treatment of allergic rhinitis: a textbook. M., 2010. 31 p.
9. Peredkova E.V. Allergic rhinitis: possibilities of elimination therapy. Journal of Family Medicine, 2013, 1: 36-42.
10. Pluzhnikov M.S., Lavrenova G.V. and others. "Basic principles of immunocorrective therapy in otorhinolaryngology." West. otorhinol. 2008; 4: 38-44.
11. Ryazantsev S.V., Pavlova S.S. Difficulty in nasal breathing in the practice of an otolaryngologist: how to help? Russian otorhinolaryngology. 2020;2(105):107-115
12. Bousquet J, Anto J, Bachert C, et al. Allergic rhinitis. Nat Rev Dis. 2020;6(1):95. D0I:10.1038/s41572-020-00227-0
13. Anto J, Bousquet J, Akdis M, et al. Mechanisms of the Development of Allergy (MeDALL): Introducing Novel Concepts in Allergy Phenotypes. J Allergy Clin Immunol. 2017;139(2):388-99. D0l:10.1016/j.jaci.2016.12.940
14. Eguiluz-Gracia I, Fernandez-Santamaria R, Testera-Montes A, et al. Coexistence of nasal reactivity to allergens with and without IgE sensitization in patients with allergic rhinitis. J Allergy. 2020;75(7):1689-98. D0I:10.1111/Bcero.14206.
15. Wise SK, Lin SY, Toskala E, et al. International Consensus Statement on Allergy and Rhinology: Allergic Rhinitis. Int Forum Allergy Rhinol. 2018;8(2):108-352. D0I:10.1002/alr.22073
16. Sarah S, Husna N, Shukri N, et al. Zonula occludens-1 expression is reduced in nasal epithelial cells of allergic rhinitis patients. Peer J 2022;10:e13314. D0I:10.7717/peerj.13314
17. Ciprandi G, Caimmi D, Miraglia Del Giudice M, et al. Recent Developments in United Airways Disease. Allergy Asthma Immunol Res. 2012;4(4):171-7. D0I:10.4168/aair.2012.4.4.171
18. May JR, Dolen WK. Evaluation of Intranasal Corticosteroid Sensory Attributes and Patient Preference for Fluticasone Furoate for the Treatment. Clin Ther. 2019;41(8):1589-96. D0I:10.1016/j.clinthera.2019.05.017
19. Jacobsen L, Niggemann B, Dreborg S, et al. Specific immunotherapy has long-term preventive effect of seasonal and perennial asthma: 10-year follow-up on the PAT study. Allergy. 2007;62:943-48. D0I:10.1111/j.1398-9995.2007.01451.x
20. Brozek JL, Bousquet J, Agache I, et al. ARIA Allergic Rhinitis and its Impact on Asthma (ARIA) guidelines - 2016 revision. J Allergy Clin Immunol. 2017;140(4):950-8. D0l:10.1016/j.jaci.2017.03.050
21. Federal'nye klinicheskie rekomendatsii. Allergic rhinitis. 2020. Available at: http://www.raaci.ru. Accessed: 11/08/2022 (in Russian)].