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To Treat Seasonal Allergies Choice an Antihistamine

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Abstract: Seasonal allergy caused by plant pollen is recognized as one of the most common allergic diseases. Information on the prevalence of seasonal allergies is presented, immunological mechanisms, clinical manifestations, modern methods of diagnosis and therapy are reviewed. The concept of treatment of seasonal allergies is based on the control of clinical symptoms. In the treatment of seasonal allergies, special attention is paid to first-line antihistamines.

Keywords: Antihistamines, allergy, senna, seasonal allergy, allergic rhinoconjunctivitis, desloratadine.

The review also focuses on the properties of desloratadine. Several studies involving tens of thousands of patients have shown that desloratadine is highly effective in relieving symptoms of seasonal allergic rhinoconjunctivitis, is well tolerated by patients, and improves quality of life.

Allergy is one of the leading diseases in the world, especially in developed countries. They mainly affect children, adolescents and working-age adults. Unfortunately, according to the results of many epidemiological studies, the incidence of pollen allergy among adults and children is constantly increasing [1,2]. The spread of pollinosis and the spectrum of causative allergens depend on many factors: geographical, climatic, agricultural culture, allergenicity of plants and the level of environmental pollution[3]. Pollinosis (pollen allergy, hay fever) is a disease based on an immediate allergic reaction. It is characterized by acute allergic inflammation of the mucous membrane of the respiratory tract, eyes and skin. The development of the disease coincides with the pollination of certain plants, so it is characterized by seasonality and recurrence. Pollinosis is classified as a genetically determined pathology. However, this is not a hereditary disease itself, but a tendency to toatopia. Often, the first symptoms of pollinosis appear between the ages of eight and 20. However, the disease can develop in both young children and the elderly [4]. Incidence among urban residents is 4-6 times higher than among rural residents. The most common manifestations of pollinosis include allergic rhinitis (AR) (95-98%). Although the direct symptoms of AR are always the focus of medical attention, the psychological and psychosocial aspects are often neglected. A standardized assessment of quality of life shows a negative impact of AR on daily life in 62% of patients. About 80% of patients report sleepiness and consequent increased daytime fatigue and decreased cognitive performance[5]. It has negative consequences for family and social life, reduces intellectual abilities [9]. The consequences of allergic rhinoconjunctivitis (ARC) can be especially significant in adolescents who depend on the evaluation of others, and are prone to excessively negative evaluations. Seasonal allergy caused by plant pollen is recognized as one of the most common allergic diseases. Information on the prevalence of seasonal allergies is presented, immunological mechanisms, clinical manifestations, modern methods of diagnosis and therapy are reviewed.

Adolescents with ARC may have difficulty falling asleep, staying awake at night, and snoring, and are prone to poor sleep, which negatively affects school attendance and daily activities. ARCS in adolescents may be a factor affecting learning and later career development [6,7]. Etiology Only 50 out of several thousand plants can cause pollinosis. Pollen of wind-pollinated plants should be light and volatile, small in size (from 20 to 35 microns) and have clear antigenic activity. The concentration of pollen in the air is also important - from ten to 50 per 1 m3.

Pathogenesis. A schematic view of the mechanism of allergy development is shown in Figure 1. Mast cells (TC) are the main participants in allergic inflammation in the nasal mucosa, bronchial tree and conjunctiva caused by the interaction of allergen with specific IgE antibodies. , eosinophils, lymphocytes, epithelial and endothelial cells. Specific IgE antibodies, which are produced in excess during contact with allergens in people prone to allergens, are fixed on high-affinity receptors for them in mast cells. Subsequent contact with the allergen and binding of the latter to IgE antibodies established in mast cells [8].

Possible allergic reactions Pollen, leaves, stems of plants: Plant foods: Medicinal plants: birch, alder, hazelnut, apple, etc. trees. Birch juice, apples, pears, kiwi, cherries, plums, peaches, apricots, cherries, olives, olives, hazelnuts, walnuts, almonds, carrots, herbs and spices (celery, fennel, curry, licorice , cumin, onion), potatoes, tomatoes, cucumbers. birch leaf, birch buds, alder cones, shingle bark, etc. Grasses timothy, oatmeal, hedgehog, oats, wheat, barley, rye, corn, etc. beer, kvass, corn, peanuts, cereals and pasta; bread and bakery products or other products made from cereals or products containing their flour; strawberries, strawberries, citrus fruits, sorrel All weeds are quinoa, ragweed, dahlias, daisies, dandelions, chrysanthemums, corn, sunflowers, etc. Holva, mayonnaise, mustard, chicory; drinks made from wormwood (vermouths, balms); melons; herbs and spices (celery, fennel, cumin, parsley, curry, pepper, licorice, nutmeg, cinnamon, ginger and coriander), carrots, garlic, citrus fruits, bananas, beets, spinach, kiwi, mango , carrots, tomatoes, peas, hazelnuts, peanuts, wormwood, chamomile, calendula, mother and stepmother, turnip, maple, etc.

They contribute to the activation of mast cells and the secretion of allergic inflammatory mediators: histamine, tryptase, prostaglandin, bradykinin, cysteinyl leukotrienes (LT) C4, D4, E4, platelet activation factor (FAT), tumor necrosis factor (TNF-hap) , the colony-stimulating factor of granulocytes and macrophages GM-CSF). Vascular endothelial cells of mediators and nasal mucosa, conjunctivaeffect on neuroreceptors causes clinical symptoms of pollinosis (itching, rhinorrhea, nasal congestion, lacrimation, conjunctival hyperemia)[6,8].

This is the initial stage of an allergic reaction. After 6-8 hours, the late stage of the allergic reaction (cellular inflammatory reaction) develops, which does not require additional contact with the allergen. Histamine is actively involved in the formation of the early and late stages of an allergic reaction, which causes most of the clinical manifestations of pollinosis. Histamine, the most important mediator of the immediate allergic reaction, has a wide biological activity. Its action is specific H1-, H2-, H3 and H4-receptors on the cell surfaceby activation.

Some patients have skin manifestations of allergies: contact urticaria, atopic dermatitis, and contact dermatitis. Contact urticaria is characterized by clear seasonality, in rare cases it may be the only clinical manifestation of pollinosis. Contact allergic dermatitis is a rare manifestation of pollinosis. It can appear on exposed skin when it comes into contact with the leaves or stems of plants. It is manifested in the form of hyperemia with subsequent vesicular rashes in the affected areas. Clinical signs of cross-reactivity include oral allergic syndrome, gastrointestinal symptoms, acute urticaria, and angioedema. and anaphylactic shock. [7] Reliable diagnosis of pollinosis depends on careful interpretation of the results of anamnesis, complaints, physical, general clinical and allergological examinations. Allergological history. The collection of anamnesis, which is of primary importance in the diagnosis of pollinosis, includes: - the presence of allergic diseases in the family or the

patient himself; - connection of symptoms with a certain time of the year (seasonality of manifestations) - dependence on weather conditions - being on the street, outside the city; - seasonal living or climate change. Physical examination is recommended to evaluate symptoms of pollinosis - previous rhinoscopy and / or endoscopy; - microscopy of a smear from the nasal cavity; - measurement of the respiratory rate of the tip of the nose, rhinomanometry, "Breathing with the mouth closed" test; - ophthalmoscopy[4]; - radiography of the paranasal sinuses; - assessment of concomitant diseases (asthma, sinusitis, laryngitis, pharyngitis, chronic otitis, hearing loss, headache) - assessment of quality of life, study of external respiratory function using a bronchodilator. [9]. Allergological diagnosis Conduct specific allergological diagnosis, including skin tests with allergens, determination of specific IgE antibodies and, if necessary, nose and/or conjunctival provocation test with specific allergens. All methods of special diagnostics are performed by allergists and immunologists in specially equipped rooms. Skin tests (prick tests, scarification and intradermal) are performed in the remission phase of allergic disease, after antihistamines are removed. If it is not possible to conduct skin tests, there are difficulties in interpreting their results, as well as failures in identifying the "culprit" allergen, determine specific IgE in blood serum. In recent years, molecular allergodiagnostics (MA) have been used to improve the accuracy of allergy diagnosis and prognosis [8]. The results of skin and laboratory tests should be compared with the symptoms of the disease, because the presence of sensitivity to allergens is not always accompanied by clinical manifestations. If there is a discrepancy between the allergic history data and the results of skin tests, provocation tests with allergens (nose, inhalation, conjunctiva) are conducted [7,9]. Prevention Primary prevention of pollinosis is aimed at preventing the development of pollen allergy, timely diagnosis, adequate pharmacotherapy and allergen-specific immunotherapy (ASIT) - preventive vaccinations and planned surgical interventions during pollination of plants with pollen allergy. [10]. Treatment The goal of treatment is to completely control the symptoms of pollinosis. Its main principles are as follows: - prevention or reduction of contact with allergens and triggers - use of pharmacotherapy; - allergen-specific immunotherapy;

Beducation of the emor. Elimination Program Measures Allergen elimination reduces the severity of pollino symptoms and the need for medical treatment. Thus, if patients are allergic to plant pollen during the flowering period, the following is recommended:

- limiting time outside in the morning, especially in dry, windy weather;
- use air purifiers that trap plant pollen in closed areas; - changing the climate zone;
- wear dark glasses to reduce the penetration of pollen into the mucous membrane of the eyes; - pay attention to the following conditions: return home to change clothes, take a shower. The following are not recommended:
- frequent ventilation at work and at home, as well as opening car windows, especially early in the morning;
- going outside the city or nature;
- use of herbal preparations, herbal cosmetics;
- conducting preventive vaccinations and planned surgical interventions. Allergen-Specific Immunotherapy Allergen-Specific Immunotherapy is a treatment with increasing concentration and dose of allergen administered subcutaneously or sublingually. Given that the most frequent manifestation of pollinosis is allergic rhinitis, it has been noted that antihistamines (AHPs) are the most commonly used in the treatment of hay fever.

BOOKS

1. Nelson textbook of pediatrics. — 20 th ed. / [edited by] Robert M. Kliegman [et al.]. USA, 2015. 5041 p.

2. Richard E. Berman, Robert M. Kligman.. Pediatrics by Nelson. 19 izdanie. Moscow. T1-5. 2011
3. Yehova NV, YE. M. Rusakova, GI Kasheeva. -Pediatrics: uchebnik / 8-ye izd., ispr. - Minsk: Vysheishaya school, 2014. - 639 p.: il.ISBN 978-985-06-23881.
4. Drannik GN Klinicheskaya immunologiya i allergologiya M., OOO Meditsinskoe informatsionnoe agenstvo», 2003, p.392
5. Rasulova Saodat Khalimovna. (2023). A study of irritable bowel syndrome among adolescents. Obrazovanie nauka i innovatsionnye idei v mire, 14(4), 151–154. Retrieved fromhttp://www.newjournal.org/index.php/01/article/view/3181
6. Children's diseases, pod ed. AA Baranova. - M., 2010
7. Rasulova Saodat Khalimovna. (2023). Modern views on the etiopathogenesis, clinic, diagnosis and treatment of irritable bowel syndrome. Journal of New Century Innovations, 26(2), 42–47. Retrieved fromhttp://www.newjournal.org/index.php/new/article/view/4803
8. Khalimovna, RS. (2023). Irritable Bowel Syndrome Clinical and Immunological Features in Adolescents. Scholastic: Journal of Natural and Medical Education, 2(4), 138–141. Retrieved fromhttps://univerpubl.com/index.php/scholastic/article/view/1123
9. Rasulova SH – Modern aspects of the pathogenesis of irritable bowel syndrome in children //New Day in Medicine 2023 7(57): 245-249 Read more at:https://newdaymedicine.com/index.php/2023/07/31/l-285/
10. Halimovna, RS. (2023). New Mechanisms of Formation of Irritable Bowel Syndrome in Children. International journal of health systems and medical sciences, 2(9), 52–55. Retrieved fromhttps://inter-publishing.com/index.php/IJHSMS/article/view/2515