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Analyzing the latest data from scientific research in medicine, it can be said that allergic skin diseases are an urgent problem (“plague” of the XXI century) among the population and a problem for public health due to the frequency of occurrence, a tendency to chronic recurrent course, resistance to therapy, serious impact on the health of the population of any age. According to foreign authors, 10% of general practitioner’s patients are patients with dermatological pathology [1-3]

According to the data of the International Academy of Allergy and Clinical Immunology, the frequency of allergic skin diseases in the children's group occurs more and more often every year with the following numbers: from 4.8 to 7.1% in Latvia, from 9.9% to 20 % in Australia, from 13.9% to 17.3% in Poland, from 48.5 to 49.1% in Sweden, from 7.2% to 46% in Russia.

When estimating the price of treatment which consists of financial costs for exacerbation relief treatment, further recovery of patients (sanatorium, psychotherapy), given the high prevalence, the severity of the course, a sharp decrease in the quality of life of patients, the following indicators can be seen: the treatment of atopic dermatitis in America is more than 369 million dollars, and the total cost of AD treatment in children and adults during the year in the UK is about 485 million pounds.

Atopic dermatitis (AD) is an inflammatory, multifactorial and idiopathic skin disease. One of its main manifestations is pruritus, more often the course is chronic and the peculiarities of the localization and morphology of lesions (infant, adolescent, adult), according to age, are characterized by an increase in the level of IgE-AT with the hypersensitivity to both allergens and nonspecific triggers being indicated.

The occurrence of atopic dermatitis is facilitated by the presence of allergic family history: the presence of atopic diseases (respiratory allergy, allergic rhinitis, bronchial asthma, atopic dermatitis, hay fever, food allergy, etc.) in parents and/or close relatives.

The first main symptoms of allergic pathology of atopic dermatitis, which often occur in infancy and often coincide in time with the introduction of complementary foods (various mixtures, mashed potatoes), since food allergens are triggers will be highlighted. In the future, allergic manifestations from the respiratory system such as respiratory allergic asthma (RAA) and allergic rhinitis (AR), an allergy to household and pollen allergens, surrounding triggers as well as an overload of the nervous system develop along the “atopic march”. The derma and respiratory allergosis, which develops in children in stages, has been proposed as a name based on the latest data.

The main classification of AD is the following indicators: age periods of the disease, the prevalence of the dermal process, the severity of the disease: I – infant (up to 2 years old); II – children (from 2 to 13 years old); III – teenagers and adults (from 14 years old and more).

The 1994 (European Working Group on AD) classification is used in the paper. To assess the severity of AD, the SCORAD (scoring atopic dermatitis) scale is used. Advantage: combines objective (intensity and prevalence of skin lesions) and subjective (intensity of daytime pruritus and sleeping disturbance) criteria, makes it possible to comparatively analyze the results obtained using computer processing, as well as to objectively assess the effectiveness of various methods of therapy (symptomatic and immune, basic, additional) [4, 5]. process, the severity of the disease: I – infant (up to 2 years old); II – children (from 2 to 13 years old); III – teenagers and adults (from 14 years old and more).

Contributing to the development and manifestation of AD are various groups of allergens and the impact of nonspecific triggering factors: food allergens of animal and plant

origin and various aeroallergens (household, epidermal, pollen, professional, detergents, cosmetic). The impact on the development and course of AD is influenced by external and internal conditions: eating disorders, overwork, the presence of acute and chronic stress situations at home and work, in educational institutions, the presence of concomitant diseases (allergic, gastrointestinal diseases, hepatobiliary system, etc.)

Of nonspecific factors, medications (antibiotics, sulfa drugs, NSAIDs, local anesthetics, vitamins, etc.), detergents (powder, soap, fresheners, rinses for clothes), chemical, physical, biological factors, etc., play a triggering role in the exacerbation of AD. Nervous stress leads to a malfunction of the central nervous system. The immune response takes place in conjunction with the nervous and endocrine systems, therefore, various changes in the state of the human body can be the cause of atopic dermatitis [6].

The main links of the immune system – the immune mechanism of AD development are IgE-mediated allergic reactions, i.e. immunological reactions of the 1st type. The basis for immunological disorders in AD is the imbalance of Th1 and Th2 lymphocytes, an increased degranulation of mast cells, and increased antigen-presenting activity of Langerhans cells. The most significant of them are degranulation of mast cells and basophils, activation of macrophages and monocytes, and stimulation of Th2 lymphocytes; several cells (mast cells, macrophages, infiltrating eosinophils, lymphocytes) and cytokines: IL-4, IL-5 are involved in the process of allergic inflammation IL-10, IL-13, GM-CSF (granulocyte-macrophage colony-stimulating factor), etc. [7]. In turn, Th2 cells initiate the IgE response and eosinophilia of peripheral blood, which leads to a change in the immunological reactivity of the skin and disruption of the local immune protection of the skin. Moreover, IL-4 and IL-13 act as a factor necessary to switch the synthesis of immunoglobulins to an IgE response, cause the expression of cell adhesion molecules (VCAM-1), which determine the migration of eosinophils and mononuclear cells directly to the inflammation site.

It is known that mechanical action on the skin (scratching) leads to damage of keratinocytes infiltrating the epidermis, mast cells and IgE-bearing macrophages, resulting in the release of IL-1, PAF “platelets activating factor”, leukotrienes and other mediators that support skin itching and inflammation, among which superantigens – bacterial exotoxins – are of particular importance.

Treatment of AD depends on many factors: the etiology of the onset, the phase of the disease (exacerbation, remission), the severity, the prevalence of the process, the person's age, the presence of concomitant pathology, etc. The basic principles of AD therapy that meet medical standards are the pathogenetic approach, complex therapy, and stages in the treatment [8]. Treatment of AD includes the use of the following measures: elimination of allergens (eliminative and protective regimens, diet therapy), basic therapy (antihistamines, stabilizing drugs of the mast cell wall), external therapy, relief of exacerbation of the disease, correction of concomitant diseases (enzymes, probiotics, antibacterial drugs, anthelmintic therapy, gastrointestinal adsorbents, etc.). correction of immunological disorders (use of immune drugs or allergen-specific immunotherapy, plasmapheresis) Treatment results: achievement of remission, elimination of the main symptoms, prevention of the disease course progression, improvement of the quality of life.

Topical steroids, which are basic therapy drugs, various local agents that have emollient, moisturizing, keratolytic, antibacterial, antifungal, and other properties are used for local therapy.

Treatment of immune system dysfunctions is carried out using a complex of methods of immunotherapy, one of which is the use of immunomodulators [9]. The use of immunomodulators must be correctly selected so as not to damage the work of other parts of the immune system. Recent scientific studies have shown that apoptosis, or the programmed death of effector cells, is involved in the control of inflammation in tissues. The increased survival of inflammatory cells in tissues may be one of the factors contributing to the onset and maintenance of chronic allergic inflammation in AD.

Necessary immunomodulatory therapy for AD is indicated only in cases where patients have clinical signs of secondary immunological insufficiency and the consequences of apoptosis.

Correctly prescribed immunomodulatory therapy for AD results in increasing the effectiveness of standard therapy, increasing the duration of remission, and reducing the frequency of exacerbations (and hospitalizations) of chronic recurrent infectious and inflammatory diseases. The exacerbation stage is removed more quickly, the links of immunity that are violated in allergic pathology (AD) are normalized. It needs to be remembered that any drug also harms the body. It must be taken into account and correctly used when prescribing immunomodulators.

The main groups of drugs with immunomodulatory properties and the most promising and effective immunotropic agents include immunomodulators from the chemically pure group with 2 subgroups: low molecular weight and high molecular weight. Low molecular weight compounds include alloferon, gepon, glutoxim, etc. High molecular weight chemically pure immunomodulators obtained using targeted chemical synthesis include the polyoxidonium drug. The polyoxidonium has been used since 1996 for the treatment of allergic nosology.

Objective: To investigate the clinical results – thymogen (cream) -alfa-glutamyl-tryptophan sodium (thymogen sodium), an immunostimulating drug that improves tissue regeneration, for external use in the treatment of atopic dermatitis.

Materials and methods: patients – 15 people, men – 7 people, women – 8 people, age 14-35, average age 24 years, concomitant diseases – allergic rhinitis in 5 (33%), bronchial asthma of allergic genesis in 2 (13%). Patient history in 67% has sensitization to food allergens, 80% – to detergents, stress effects in all patients, fungal sensitization, aggravated in early spring and late autumn – in 53%, local allergy to metal (watches, jewelry, braces) – in 20%.

The patients were under observation for 6 months and underwent the following treatment: during an exacerbation, antihistamines (pills) + advantan applied locally. Basic therapy was applied locally to the skin for 2 weeks, with a break of 1.5 months, in 3 courses. The examination included: clinical examination – the frequency of exacerbation, the number of rashes during the period of obstruction, the speed of relieving exacerbation (number of days). Laboratory examinations were carried out before the start of the course of treatment and repeated after 6 months: complete blood count immunoglobulin Ig E, IgA, SIgA IgM, IgG, phagocytic activity of leukocytes, the ratio of T-helpers and T-suppressors, IL-5, the content of T-lymphocytes (CD3+, CD8+).

The inclusion of thymogen in the complex therapy of AD led to a decrease in the duration of exacerbation and accelerated the regression of acute inflammatory changes on the part of the skin layer by 2 times or more, the process of restoring skin integrity is faster. The use of this therapy leads to an improvement in the general condition, which is associated with a decrease in intoxication and skin itching (in patients with moderate severity, it practically disappears), patients expand their diet, which leads to psychological recovery and a decrease in stress. When thymogen is included in standard treatment, it correlates with the restoration of impaired parameters of both cellular and humoral immunity. After the course of treatment, the patients have the following laboratory results: indicators of a general blood test – an increase in eosinophils -13% (before the start of treatment – 67%), lymphocytes – within normal limits (before treatment, 33% are increased), an increase in ESR – within normal limits (before the start of treatment – 13%). Examination of the immune system indicates the content of T-lymphocytes (CD3 +, CD8 +), the phagocytic activity of leukocytes, the content of IgM, Ig being normalized, IgE being increased in 33% (before treatment is at 47%), a SIgA decrease in one patient – 20 years old female (7%). The decrease in SIgA was detected in 12 patients (80%) before treatment. The immunoregulatory index is within the normal range, which indicates the preservation of the quantitative ratio between the helper and

effect/suppressor population of T-lymphocytes. In the treatment of atopic dermatitis, the need for the use of antihistamines and topical GCS decreases (the frequency of administration and dose decreases till complete cancellation). The obtained results – treatment with thymogen had a positive effect on the state of local defense factors – immunocorrection of the cellular link of the immune system – skin in atopic dermatitis, an increase in secretory immunoglobulin A, normalization of immunoglobulin E, A, M, G

Conclusions.

It is recommended to prescribe thymogen (cream) as a basic therapy for AD. It is safe, applied to the skin, and reduces the frequency and intensity of exacerbation, restores the protective shield of the skin (cellular and humoral immunity).

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The incidence of anti-drug antibodies in patients with non-Hodgkin's lymphoma

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Introduction.

Monoclonal therapeutic antibodies are widely used to treat lymphoproliferative and rheumatologic disorders [1,2]. Because of their higher target specificity, monoclonal antibodies treatments are generally considered to pose a lower risk of adverse reactions than chemical drugs. Rituximab, a chimeric monoclonal antibody targeted against the pan-B-cell marker CD20, was the first monoclonal antibody to be approved for therapeutic use [2]. It is usually used in combination with chemotherapy. Treatment with rituximab at standard weekly dosing is effective in more than 50% of patients with relapsed or refractory CD20-positive follicular non-Hodgkin's lymphoma, but is not curative. It is less effective in other subtypes of CD20-positive lymphoma and for retreatment, even with CD20 still expressed [3]. Thus, binding of rituximab to CD20 is not sufficient to kill many lymphoma cells, indicating that there are mechanisms of resistance.

There are quite a lot of data in the literature that therapeutic antibodies occasionally elicit an antibody response in patients, which can result in loss of response or adverse effects [4-7]. However, antibodies that bind a drug are sometimes found in pre-treatment serum samples, with the amount depending on drug, assay, and patient population. The accurate prediction and assessment of (clinically relevant) immunogenicity remains a challenging endeavor [4].