DIFFERENTIAL IMMUNOTROPIC THERAPY OF PATIENTS WITH ACNE

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_key words:_ acne, clinical picture, immunological parameters, immunotrophic treatment.

Abstract. Acne (Acne vulgaris) is one of the most common skin diseases (registered in 80-90% of teenagers and young people of working age) with the localization of acne on exposed skin, has a chronic course that causes psycho-emotional changes in patients and reduces their quality of life.

Objective. To improve the treatment of patients with acne depending on the clinical manifestations of dermatosis and the state of their systemic immunity through the differentiated use of immunotropic drugs.

Material and methods. A comprehensive immunological examination and treatment of 146 patients with acne aged 19 to 25 years, of which 77 (52.7%) were female and 69 (47.3%) were male. The control group consisted of 35 healthy individuals (donors) of similar age and sex.

Results. All 146 examined patients with acne were diagnosed with an inflammatory form of acne, including: in 37 (25.3%) patients - mild clinical course, in 83 (56.8%) - moderate severity and in 26 (17.9%) - severe clinical course of acne. The immunological study revealed significant changes in immune parameters in patients with severe and moderate clinical course of acne, while a slight change in the immunity was found in the patients with mild stage of acne. According to these changes in the immunological parameters of patients with acne, an immunotropic drug glucosaminylmuramyl dipeptide (lycopid) was prescribed differently - 2 mg twice a day for 10 days (for the patients with moderate acne) and 10 mg once a day for 10 days (for the patients with severe clinical picture). This kind of treatment led to a positive dynamics of immunological parameters of the blood in such patients.

Conclusion. Differentiated immunotrophic therapy as a component of complex treatment of patients with acne with the prescription of the immunotropic drug glucosaminylmuramyl dipeptide (lycopid) allows us to improve the results of treatment, which is confirmed by the significant positive dynamics of clinical and laboratory parameters.

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статі. Групу контролю склали 35 практично здорових осіб (донорів) подібного віку і статі.

Результати. У всіх 146 обстежених хворих на вугрову хворобу діагностовано запальну форму акне, у тому числі: у 37 (25,3%) осіб – легкий клінічний перебіг, у 83 (56,8%) – середній ступінь тяжкості та у 26 (17,9%) – тяжкий клінічний перебіг акне. Внаслідок імунологічного обстеження у пацієнтів із тяжким та середньотяжким клінічним перебігом акне встановлено вірогідні зміни показників імунітету за незімтних їх змін при легкому перебігу акне. Зважаючи на встановлений характер змін імунологічних показників хворих на акне призначали імунотропний препарат глукозамілімурамідіпептид (лікопід) диференційовано – по 2 мг двічі на добу 10 днів (при вугровій хворобі середнього ступеня тяжкості) та по 10 мг одні раз на добу 10 днів (при тяжкому клінічному перебігу дерматозу), що зумовило позитивну динаміку клінічних проявів акне та імунологічних показників крові у таких пацієнтів.

Висновки. Диференційовані імунотропна терапія, що була застосована у комплексному лікуванні хворих на акне із призначенням імунотропного препару глукозамілімурамідіпептиду (лікопід), дає змогу підвищити вірогідність вивчення вірогідною позитивною динамікою клініко-лабораторних показників.

Ключеві слова: акне, клиника, імунологічні показники, імунотропне лікування.
Introduction. Acne (Acne vulgaris) - one of the most common skin diseases, which is registered in the majority of teenagers and young people of working age [1-3]. Localization of acne on face, upper torso, shoulders (exposed skin) is the main cause of psycho-emotional disorders in patients [4, 5]. Chronic duration with frequent recurrences [6, 7] and the development of resistance to the methods of basic therapy [8, 9] in patients reduces their quality of life and social activity, which determines important medical [4, 5, 10] and social significance of this dermatosis.

According to modern research, the pathogenesis of acne is complex, multifactorial, but remains completely unexplored. It has been established that acne vulgaris occurs on the background of genetic predisposition due to dysfunction of sebaceous glands in the skin, pathological desquamation of the epithelium of sebaceous follicles and activation of skin microflora (Propionibacterium acnes, Staphylococcus epidermidis, etc.) [7, 9, 11]. Changes in endocrine regulation, systemic immunity [12], metabolic processes, etc. promote the development of purulent-inflammatory processes in the skin. It is established that changes in systemic immunity play an important role in the development of dermatoses [13, 14].

The purpose of study. To optimize the treatment of patients with acne depending on the clinical manifestations of dermatosis and the state of their systemic immunity through the differentiated use of immunotrophic drugs.

Material and methods. A comprehensive immunological examination and treatment of 146 patients with acne aged 19 to 25 years, of which 77 (52.7%) were female and 69 (47.3%) were male. The control group consisted of 35 healthy individuals (donors) of similar age and sex.

To assess the cellular and humoral immune system in patients with acne vulgaris, total number of T-lymphocytes, active T cells, T-helper (Th) and T-suppressor lymphocytes (Ts), immunoregulatory index - IRI (Th/Ts), the number of B-lymphocytes, the content of serum immunoglobulins (Ig) classes M, G, A and circulating immune complexes (CIC) were determined, and to assess phagocytosis activity and phagocytic number of polymorphonuclear leukocytes and did a test of nitro blue tetrazolium recovery (NBT - spontaneous test) and NBT-the test stimulated with pyrogenal (NBT stimulated test) carried out.

Results. According to the results of immunological studies, the moderate decrease in number of T-lymphocytes/CD3+ by 17.7% (36.5±0.7%) was found in patients with acne (p<0.05) compared with the control group (in the control group - 44.1 ± 1.3%), the moderate decrease in number of CD3+CD4+ helper lymphocytes - by 21.1% (respectively: 22.0±0.6% and 27.9±1.2%), the moderate decrease of number of CD3+CD8+/T-suppressor lymphocytes - by 13.0% (respectively: 14.7±0.4% and 16.9±0.7%) and CD19+- by 10.5% (respectively: 23.3±0.03% and 26.6±1.1%), as well as an increase in the concentration of IgG - by 33.6% (respectively: 17.9±0.4 g/l and 13.4±0.8 g/l, p<0.001) with a decrease in the level of IgA - by 19.3% (respectively: 2.93±0.09 g/l and 3.63±0.17 g/l, p<0.01) without changes in the level of the CIC.

According to the changes in systemic immunity in patients with acne with manifestations of secondary immunodeficiency and decreased activity of phagocytic blood cells, which are characteristic mainly of patients with acne with moderate and severe clinical course, on the background of basic therapy of dermatosis patients prescribed immunotrophic drug glucosaminylmuramyl dipeptide (lycopid).

Lycopid is a drug from the pharmacotherapeutic group of immunostimulants. The main active ingredient of lycopid is GMDP (glucosaminylmuramyl dipeptide). The biological activity of the drug is due to the presence of specific binding centers (receptors) for GMDP, localized in the endoplasm of phagocytes and T-lymphocytes. The drug stimulates the functional (bactericidal, cytotoxic) activity of phagocytes (neutrophils, macrophages), enhances the proliferation of
T- and B-lymphocytes, increases the synthesis of specific antibodies. Pharmacological action is provided by increasing the production of interleukins (interleukin-1, interleukin-6, interleukin-12). The drug increases the activity of natural killer cells. Likopid is used in adults sublingually or internally on an empty stomach 30 minutes before eating. Due to the established features of systemic immunity and phagocytosis in patients with acne with varying severity of dermatosis, the immunostimulating drug "Likopid" was prescribed differently - to patients with moderate acne - 2 mg twice a day for 10 days and for the patients with severe forms of dermatosis - 10 mg orally once a day for 10 days.

Considering the obtained research results, the advanced tactics of complex therapy of acne with the differentiated prescription on the basis of standard therapy of dermatosis of the means of immunotropic (glucosaminylmuramyl dipeptide) action have been developed. It has been found that optimized treatment of patients with acne significantly (p<0.05) improves the immune system (increase in the number of T-lymphocytes/CD3+ as compared with the initial level (by 25.8%), the level of CD3+CD8+ (by 21.3%); increase of phagocytic index and activity (PI and PA) as compared to their initial level (by 23.9% and 9.8%); increase in nitro blue tetrazolium test pyrogenal stimulated (NBT-st) (by 12.9%). A significant improvement of clinical outcomes in patients of the main group; a significant (p<0.01) relative to patients in the comparative group acceleration of the regression of acne elements with a (p<0.01) relative to patients in the comparative group. A significant improvement of clinical outcomes in patients of the main group; a significant (p<0.01) relative to patients in the comparative group acceleration of the regression of acne elements with a (p<0.01) relative to patients in the comparative group.

Conclusion. Differentiated immunotrope therapy as a component of complex treatment of patients with acne with the prescription of the immunotrophic drug glucosaminylmuramyl dipeptide (lycopid) allows to improve the results of treatment, which is confirmed by the significant positive dynamics of clinical picture and immunological parameters.

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