

RESULTS OF MODERN COMPLEX TREATMENT OF PSORIASIS

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Abstract: Studies have identified loci of psoriatic predisposition. One specific marker (Psoriasis susceptibility 1, PSORS 1) is localized on chromosome 6p21, in the major histocompatibility complex (MHC), which accounts for 30 to 50% of genetic susceptibility [8,9]. The second psoriasis susceptibility locus (PSORS 2) is located at 17q24-q25. Other HLA types most often found in psoriasis are HLA - B13, B17, Bw 57, Cw6. A genome-wide analysis of a study of 1,000 psoriasis patients identified and confirmed an association between psoriasis and seven genetic loci - HLA-C, IL12B, IL23R, IL23A, IL4/IL13, TNFAIP3, and TNIP1. Ongoing research is identifying additional loci [10,11]. Modern understanding of psoriasis is based on centuries of research. First described the clinic of psoriasis A.K. Celsus (c. 30 BC - c. 40 AD). Claudius Galen (c. 129 - c. 201), a Roman physician, first proposed the term "psoriasis" [1,2]. In 1847, Auspitz describes the symptom of pinpoint bleeding, and in 1876, Koebner's work was published on the specific reaction of the skin of patients with psoriasis to mechanical trauma. A significant role in the study of psoriasis belongs to the first Russian professor of dermatology, Alexei Gerasimovich Polotebnov, who was one of the first to evaluate psoriasis in connection with visceral pathology, metabolism, and the state of the nervous system [3]. In the literature, the authors point to the systemic nature of the pathological process in psoriasis and suggest using the concept of "psoriatic disease" rather than psoriasis [4,5]. In the scientific literature, the authors at different times considered various theories of the origin of psoriasis: genetic, infectious, immunological, metabolic, endocrine, neurogenic, intestinal [6,7].

Keywords: Psoriasis, treatment, Cytokines

Introduction:

Psoriasis is a chronic inflammatory immune-mediated dermatosis of multifactorial origin, with a pronounced genetic nature, which is characterized by skin lesions with epidermal-dermal papules with severe peeling and damage not only to the skin, but also to nails, the musculoskeletal system and internal organs. A number of scientific studies are being carried out worldwide in dermatology to develop a therapy for psoriasis, which is a challenge and has a significant economic impact on the health care system. Therefore, the choice of optimal and less expensive treatment regimens that allow increasing the effectiveness of therapeutic and preventive measures without additional resources is extremely important. The quality of medical care directly depends on the correct and rational use of medical resources (Kubanov A.A. et al., 2015). An increase in the incidence of psoriasis, an increase in the frequency of relapses and severe forms of chronic dermatosis, as well as forms of the disease resistant to various methods of therapy, leads to a decrease in the quality of life, disability and often disability of the patient (Dvornikova E.V. et al., 2017; Raznatovsky K. I., Terletsky O.V., 2017; Singh S.M. et al., 2016). The increase in the incidence of psoriasis, especially among young people, determines the relevance of this work. According to the literature data in Uzbekistan, 2% of the adult population suffers from psoriasis, this is more than 750 thousand people, in European countries the prevalence of psoriasis is 1-3% (Rodionov A.N., 2014, Raznatovsky K.I., Terletsky O.V., 2017). According to current research, more than 8 million Americans suffer from psoriasis (Armstrong AW, Mehta MD, Schupp CW, Gondo GC, Bell SJ, Griffiths). According to the World Psoriasis Day Consortium, 125 million people worldwide - 2 to 3 percent of the total population - suffer from psoriasis. An estimated 30 percent of people with psoriasis also develop psoriatic arthritis (Mease PJ, Gladman DD, Papp KA, et al.). Treatment of psoriasis is carried out in accordance with the clinical guidelines for dermatovenereology and includes medication, physiotherapy and sanatorium treatment (Raznatovsky K.I., Terletsky O.V., 2017). Physiotherapy treatment for psoriasis involves the use of standardized methods of ultraviolet therapy. However,

phototherapy with ultraviolet radiation causes photodamage and increases the risk of developing skin carcinogenesis (Zhilova M.B. et al., 2015; Kulbiy D.S. et al., 2017; Osina A.V. et al. 2017; Archier E. et al. , 2012; Seebode C., 2016). Given the above, it is important to develop new therapies for psoriasis that do not have a damaging effect on the skin.

During the years of independence, large-scale measures have been taken in our country to provide the population with high-quality medicines. In the 4th direction “On the strategy of actions for the further development of the Republic of Uzbekistan”, important tasks are defined for “the development of the pharmaceutical industry, as well as improving the provision of the population and medical institutions with high-quality medicines”. In particular, to meet the needs of the population with pharmaceutical products by creating new drugs.

Aim: To determine the effectiveness of the psoriasis therapy based on the intellectual status.

Materials and methods:

Conducted clinical and laboratory monitoring of 140 patients with psoriasis vulgaris of varying severity. Hereditary burden for psoriasis was detected in 41 (29.29%) of the examined. According to the anamnesis, 64 patients (45.71%) could not associate the onset of the disease with any provoking factor, the starting factors for the development of the disease were mainly stress (mental trauma), overwork in 48 (34.29%) patients, exacerbation of the pathology of the gastrointestinal - intestinal tract and hepatobiliary system in 18 (12.86%) patients, in 10 (7.14%) patients - exacerbation of other somatic diseases (lung disease, ENT organs, respiratory diseases, hypothermia). As a rule, the disease began with single rashes in 133 (95.0%) patients. Exacerbation of psoriasis was seasonal in 47 (33.6%) patients, mainly in the spring and / or autumn period of the year, the summer form of the disease was not observed. All examined patients with psoriasis were diagnosed with a progressive stage of psoriasis upon admission to the hospital.

Determination of the blood serum of patients with psoriasis, the indicators of TNF- α , IL-1, IL-10, IL-10 and IgA were studied by enzyme immunoassay quantitative analysis using commercial kits from Demeditec Diagnostics GmbH

The data obtained during the study were subjected to statistical processing on a Pentium-IV personal computer using the Microsoft Office Excel-2003 software package, including the use of built-in statistical processing functions. Methods of variational parametric and nonparametric statistics were used with the calculation of the arithmetic mean of the studied indicator (M), standard deviation (σ), standard error of the mean (m), relative values (frequency, %), the statistical significance of the measurements obtained when comparing the average values was determined by the criterion Student (t) with the calculation of the probability of error (P) when checking the normality of the distribution (according to the kurtosis criterion) and the equality of general variances (F - Fisher's criterion). Significance level $P < 0.05$ was taken as statistically significant changes.

The determination method is based on a solid-phase "sandwich" - a variant of enzyme immunoassay. Specific reagents of the kit are monoclonal antibodies to interleukins (IL-1, IL-10, IL-17) adsorbed on the surface of the wells of a collapsible polystyrene plate, a conjugate of polyclonal antibodies to interleukins (IL-1, IL-10, IL-17) with biotin and calibration samples containing interleukins (IL-1, IL-10, IL-17).

In the blood serum of patients with psoriasis, TNF- α , IL-1, IL-10, IL-10 and IgA were studied by quantitative enzyme immunoassay using commercial kits from Demeditec Diagnostics GmbH

The content of a number of cytokines in the blood serum, observed to identify the impact on the cytokine status of the treatment and assess the prognostic value of the cytokine profile. As it turned out, the use of Scafo in psoriasis leads to an increase in the concentration of IL1, an inhibitor of the pro-inflammatory cytokine IL1, in the first group before treatment 12.1 ± 3.3 pg/ml, after treatment 6.7 ± 1.4 pg/ml ($p < 0.005$). These indicators in the second group before treatment

were 14.6 ± 4.4 pg/ml, after treatment 10.1 ± 1.4 pg/ml ($p < 0.005$), which, of course, can be considered as a positive effect of therapy.

The levels of IL-10 in the first group before treatment were 3.7 ± 1.8 pg/ml, after treatment 8.9 ± 2.1 pg/ml ($p < 0.005$), which is 19% below the norm. These figures in the second group before treatment were 3.8 ± 1.4 pg/ml, after treatment 5.5 ± 1.1 pg/ml ($p < 0.005$), which is 7% below the norm, possibly due to the activation of the apoptosis process.

Results and discussions:

The levels of IL-17 in the first group before treatment were 10.2 ± 2.4 pg/ml, after treatment 7.01 ± 0.19 pg/ml ($p < 0.005$), which is 1.15 more than normal. These indicators in the second group before treatment were 10.1 ± 2.2 pg/ml, after treatment 6.59 ± 0.10 pg/ml ($p < 0.005$), which is 1.07 higher than the norm, which indicates the response of the immune system to inflammatory process.

The concentration of TNF α remained stably high at the initial stages of therapy and at the end of treatment approached the normative values (13.3 ± 5.2 pg/ml in the control group before treatment, 5.8 ± 4.2 pg/ml after treatment, $p > 0.05$ The norm is 3.9 ± 1.5 pg/ml, 6.2 ± 2.1 in the second group before treatment, 4.3 ± 0.9 pg/ml after treatment, $p > 0.05$).

The levels of IgA in the first group before treatment were 3.05 ± 0.16 g/l, after treatment 2.01 ± 0.07 g/l, ($p < 0.005$), which is 1.12 more than the norm. These indicators in the second group before treatment were 3.15 ± 0.10 g/l, after treatment 6.59 ± 0.10 pg/ml ($p < 0.005$), which is 1.04 higher than the norm.

Determination of the PASI value allows assessing the impact of the severity of psoriasis on the quality of life of patients. It has been shown that the severity of psoriasis, assessed using PASI, correlates with the value of the dermatological index of quality of life.

The effectiveness of therapy in advanced skin psoriasis is determined based on the dynamics of the PASI severity index (Psoriasis Area Severity Index).

Therapy should be considered effective if the PASI is reduced from baseline by at least 50% (optimally 75% or 90%) - PASI response 50/75/90.

Calculation of PASI composite assessment of erythema (E), infiltration (I), desquamation (SH) and area (S) of psoriatic plaque. To calculate PASI, the body is conditionally divided into four areas: head (d), torso (t), arms (p), legs (n).

For each of them evaluate:

1. The area of psoriatic skin lesions - (S) (first determined in% of the calculation - on the head 1 palm of the patient corresponds to 10%, on the trunk - 3.3%, on the arms -5%, on the legs - 2.5%, and then in points - 0 - no psoriasis, 1 - psoriasis affects less than 10% of the area of any of the indicated parts of the body, 2 - psoriasis affects from 10 to 29%, 3 - from 30 to 49%, 4 - from 50 to 69%, 5 - from 70 to 89%, 6 - from 90 to 100%).

2. Erythema, infiltration and peeling are determined in points: 0 - absence of psoriasis, 1 - minimal severity, 2 - moderate, 3 - significant, 4 - maximum.

Calculation formula:

$PASI = [0.1 \times (Er + Ir + Hr) \times S] + [0.2 \times (Er + Ir + Rr) \times S]$ + According to CASPAR criteria, patients must have evidence of inflammatory joint disease (arthritis, spondylitis, or enthesitis) and 3 or more points from the following 5 categories.

CASPAR- 10 patients with PsA 2 patients with 5 points, 3 patients with 4 points, 5 patients with 3 points.

PsARC (Psoriatic Arthritis Response Criteria)

1. Number of painful joints (NBG out of 68)
2. Number of swollen joints (NPV out of 66)
3. general assessment of PsA activity by a doctor on a 5-point Likert scale - "excellent" - 1, "good" - 2, "satisfactory" - 3, "bad" - 4, "very bad" - 5
4. overall assessment of PsA activity by patients on a 5-point Likert scale - "excellent" - 1, "good" - 2, "satisfactory" - 3, "bad" -4, "very bad" -5

Improvement:

1. ≥ 1 point decrease in total patient/doctor PsA activity score

2. Decreased NPV/NPV by $\geq 30\%$.

Deterioration:

1. ≥ 1 point increase in total patient/doctor PsA activity score

2. increase in NPV/NPV $\geq 30\%$.

Response to therapy:

1. improvement of two of the four specified criteria, one of them being NPV or NPV.

2. deterioration of any of the indicators is not allowed.

Conclusions:

An algorithm for the complex therapy of patients with psoriasis has been developed and implemented, which allows a differentiated approach to the appointment of a membrane-stabilizing, antioxidant, hepatoprotective and immunocorrective drug (internally and externally), and to achieve clinical remission and significant improvement in 94.7-97.5% of patients, 133 reductions the duration of the hospital stage by 27.6%, the lengthening of the terms of clinical remission in 72.5% of patients.

At the same time, standard therapy did not lead to pronounced changes in the content of LPO secondary products - CD and ST (isopropanol phase), lipid peroxidation end products - Schiff bases and TBA-active compounds.

Thus, the study of interleukins in patients with psoriasis fixed similar results, which proves the irreproachable similarity with our data and their reliability. Analysis of the dynamics of the content of interleukins in patients with psoriasis showed that the drug has a normalizing effect on the cytokine status of patients.

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