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USING OF NARROW-WAVE ULTRAVIOLET THERAPY IN PATIENTS WITH PSORIASIS TO IMPROVE THE QUALITY OF TREATMENT

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Psoriasis is one of the most common chronic inflammatory recurrent multifactorial skin diseases dominated by genetic etiology [1,5,9], which is characterized by hyperproliferation of epidermal cells, impaired keratinization against the background of an inflammatory reaction in the dermis, as well as damage to nails, joints and hair. parts of the head [5,8]. According to clinical and epidemiological studies, the prevalence of this disease in the world varies from 0.5 to 4.6%, regardless of gender, age and ethnicity [1,4,6,8]. The proportion of this pathology in the general structure of skin diseases reaches from 1 to 40%. On the basis of clinical signs, the following types of psoriasis are distinguished: chronic plaque psoriasis; psoriasis with psoriatic arthritis; pustular, erythroderma, or guttate psoriasis, palmar - plantar psoriasis.

Most researchers assign the leading role in the mechanism of development of psoriasis to the genetic theory [1,4,6,8,], and among the provoking factors - traumatic, physical, chemical, drug, biological, infectious, as well as maladapted nutrition and psychogenic stress [1, 4,5,6,8].

In Ukraine, the statistical data on the incidence of psoriasis is slightly lower than the average in Europe and the world [1,4,6], which may be due to both imperfection of medical and statistical systems and underdiagnosis of psoriasis due to a low level of patient visits, which is associated with an insufficiently high level of awareness of the population about modern methods of treatment, high cost of treatment and low material level of the population of Ukraine, despondency in improving the quality of life [4,10]. The increased attention to psoriasis is explained not only by the frequency,

but also by an increase in severe forms of psoriasis (arthropathic, erythroderma, exudative and pustular, widespread plaque with resistance to traditional therapy), leading to disability [1,4,5,6,8,1] .. Currently, there is a negative trend in the increase in the incidence of psoriasis, which today, unfortunately, is not only a disease, but also a lifelong condition, forcing the problem of psoriasis to be considered extremely urgent [1,4,6,7].

The treatment of psoriasis at the present stage is based on the basis of evidence-based medicine and includes the use of sedatives, detoxifying agents, hyposensitizing agents, antihistamines that improve peripheral circulation, hepatoprotectors, vitamins (A, E, groups B, C), corticosteroids.

Phototherapy is one of the most important modern methods of treating people with psoriasis [2,13,14]. The most common types of phototherapy are narrow-wave ultraviolet B, broad-wave ultraviolet B, and psoralen and ultraviolet A (PUVA) photochemotherapy. PUVA - therapy can be oral, local and in the form of baths, depending on the route of taking psoralen. Narrow-wave ultraviolet B is exclusively represented by 311 nm radiation, while broad-wave ultraviolet B is classified into two types: selective broad-wave ultraviolet B (wavelengths from 305 to 325 nm) and wavelengths. [2,3].

In recent years, narrow-wave (311 nm) ultraviolet B therapy (UVB therapy), along with photochemotherapy (PUVA therapy), occupies the first position among physiotherapeutic methods for treating common psoriasis (PP) , as it allows to achieve maximum suppressive and against minimal harmful effects on tissues. Despite the extensive experience in the use of narrow-wave ultraviolet therapy of spectrum B (UVB therapy) in ordinary psoriasis, the mechanism of its action has not yet been fully elucidated and requires a more in-depth detailed analysis, taking into account the phenotypic characteristics of inflammatory infiltrate cells [3]. In the domestic literature there are few publications on the study of the action and effectiveness of ultraviolet irradiation therapy in psoriasis [3].

The aim of the study. To study the necessity of using narrow-wave (311 nm) ultraviolet (UV) therapy and its effect on some links of skin morphogenesis and the quality of treatment and the duration of remission in patients with common psoriasis.

Materials and methods. The study was conducted from 2018 to 2019. (inclusive) on the basis of the Communal enterprise "Poltava Regional Clinical Skin and Venereal Diseases Dispensary of the Poltava Regional Council" (KP "POKSHVD POR" and the Medical and Diagnostic Center "Medea" (Medical and Diagnostic Center "Medea") Poltava. 134 patients with common psoriasis were monitored (82 men and 52 women aged 23 to 65 years) The pathological process in patients with psoriasis was characterized by monomorphic eruptions in the form of flat pink-red papules ranging in size from 0.3 mm of the head to 1 cm, of a dense consistency with raised edges. Covered with small, loose scales of silver-white color.

The criteria for inclusion in the study were the diagnosis of common psoriasis, the duration of the disease from 1 to 48 years, the skin phenotype II and III, as well as the absence of contraindications for phototherapy: age up to 16 years, malignant neoplasms of any localization in the history and at the time of the study, pigmented lesions are common. nevi, pregnancy and lactation, photodermatitis, eye diseases, endocrine diseases or diseases of the cardiovascular system, kidneys, liver, etc. in the stage of decompensation [2,3].

The patients were randomly assigned to two groups of 66 people each. The first group, in addition to the standard complex treatment according to the protocol of the Ministry of Health of Ukraine dated 05/08/2009 N0312 with the use of sedative,

detoxification, hyposensitizing, hepatoprotective and external therapy, received narrow-band phototherapy, and the patients were monitored. ... To assess the clinical manifestations, prevalence and severity of the psoriatic process, the PASI severity index was used [5,7].

For UV - therapy was used phototherapy apparatus "PSOROLIGHT 100-6" (medical equipment "Viola" Ukraine, Poltava) with a wavelength of 311 nm. The initial radiation dose was set depending on the skin phototype without determining the minimum erythema dose (according to the recommendations of the device manufacturer). In patients with phototype II, it was 0.230 J / cm², with phototype III - 0.320 J / cm². A single dose increase was uniform and amounted to 0.05–0.1 J / cm², which, with sufficient efficiency, minimized adverse reactions. In 6-8 hours after the third, fourth procedure, mild erythema usually appeared, which disappeared on its own after 6-12 hours. There were 4 cases of photodermatitis, which is (6.1%). In the event of photodermatitis, the treatment was temporarily stopped until the erythema had passed, and then restored with a single dose that was 0.05–0.1 J / cm² less than the last one. A single dose was increased until signs of regression of psoriatic manifestations appeared, after which it was not changed until the rash disappeared completely, and again increased by 0.1 J / cm² if the regression of the rash slowed down or stopped. After the tenth procedure, subsequent single doses of radiation were not increased. The standard course of treatment consisted of 15–20 procedures with a regimen of 3-4 times a week. The histological picture was assessed in 18 patients (9 from each group) on the basis of the basic method for diagnosing pathological changes taken with the help of an intravital biopsy. Biopsies were taken three times at the start of treatment, 21-28 days later, and 6-8 months later.

Results and discussion. The clinical picture was actively changing in patients of group I. Thus, among 66 patients of the first group, after 10 days, the regression of rashes was 48.4% faster (desquamation disappeared, papules turned pale and became flat) than in patients of group II (control) who were prescribed standard treatment without UV therapy. In 54 (81.8%) patients of the first group, the rash practically disappeared due to 15-20 procedures.

In addition, further dispensary observation after 6-8 months from the start of treatment showed that in patients of group II, a stable state of the skin process was noted only in 22 (33.3%) cases, and after 12 months only in 11 (16.7%) cases. ... , while in patients of group I, similar numbers were 52 (78.8%) and 41 (62.12%), respectively. The use of UV therapy made it possible to achieve an improvement in the clinical picture after 20 days in 65 (98.48%) patients of group I. Also, after 21-28 days, a positive dynamics of morphological changes in the skin in the foci was histologically ascertained. Due to the limited penetration of UV radiation into the skin by cells of the epidermis and papillary layer, narrow-wave rays have a positive effect on the proliferative activity of keratinocytes and inflammatory changes in the skin. So, in biopsies of 8 (88.9%) patients of group I, the proliferation of epidermal outgrowths was characterized as not expressed or, in some cases, moderately pronounced, which corresponded to a weak and moderate degree of acanthosis. The volume fraction of the epidermis in the morphometric study was 25-36%. Some keratinocytes contained optical empty vacuoles, a sign of ballooning dystrophy. The granular layer was determined in the form of several rows of cells in 6 (66.7%) biopsies of patients of group I. Moderate hyperkeratosis was noted and there were no signs of parakeratosis in 7 (77.8%), the thickness of the stratum corneum was restored in 8 (88.9%) and granular layers of patients of the first group.

Conclusions. The use of narrow-wave (311 nm) UV-therapy makes it possible to achieve almost 2 times faster regression of rashes and has a positive effect on the clinical manifestations of ordinary psoriasis (after the course, the rash disappeared in 54 (81.8%) patients. Also, positive dynamics of skin morphology was noted in patients in the foci, which indicates the antiproliferative and anti-inflammatory effect of UV therapy (311 nm) on the skin of patients with psoriasis and allows us to regard it as an effective pathogenetic method of treatment (restoration of the thickness of the stratum corneum in 8 (88.9%), reduction of acanthosis of parakeratosis in 7 (77.8%).

This provides a basis for justifying the need for the use of narrow-wave ultraviolet therapy in patients with psoriasis to improve the quality of treatment and the duration of remission in patients with psoriasis.

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