EFFECTIVENESS OF LOW-INTENSE LASER THERAPY IN PATIENTS WITH VULGAN FORM OF PSORIASIS

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Anotation: In modern literature there is practically no information about the state of the reproductive endocrine system in vulgar form of psoriasis in women, although the connection of the disease with the functional state of the endocrine glands is beyond doubt. This connection is confirmed by the dependence of the course of the disease on the functional state of the pituitary-ovarian system (puberty, menstruation, pregnancy, childbirth, etc.).

Keywords: menstruation, pregnancy, childbirth, puberty

Considering the lack of effectiveness of many modern methods of treating the vulgar form of psoriasis, it is urgent to find new, pathogenetic-targeted methods of treating this disease. Laser therapy, the therapeutic effect of which is based on neuroreflex mechanisms, has a normalizing effect on the central nervous system and its autonomic component, on allergic and immunological processes, but there is little work on the use of this method in patients with vulgar psoriasis.

The purpose of the study is to study the functional state of the pituitary-ovarian system against the background of laser therapy in patients with vulgar psoriasis.

Materials and methods of research. The development included 39 patients with vulgar psoriasis, aged from 20 to 50 years. The functional state of the pituitary-ovarian system was judged by the content of pituitary hormones in the blood plasma in both phases of the menstrual cycle - luteinizing hormone (LH), follicle-stimulating hormone (FSH), as well as the sex steroid hormones estradiol. Determination of the content of gonadotropic and female sex steroid hormones - FSH, LH and estradiol in blood plasma

was carried out using the immunological method of quantitative determination of hormones - one of the most sensitive, specific and universal. The sensitivity of this method allows you to determine the content of gonadotropins up to 0.2 ng / ml. This method is proposed in 1960 г. R. _ S. _ Value, S. _ A. _ Berson. The goal of laser therapy in the treatment of vulgar psoriasis is the following: reducing the excitability of sensitive receptors in the affected area, activating regenerative and anti-inflammatory processes, eliminating the phenomena of endogenous intoxication, restoring immune activity. The plan of treatment measures includes exposure directly to the affected area, irradiation of segmental innervation zones in accordance with the localization of the pathological focus. Zones of segmental innervation of individual parts of the body: irradiation of the liver and lungs in the projection of Krenig's fields (the region of the apexes of the lungs). Irradiation regimes for treatment zones in the treatment of the vulgar form of psoriasis of the projection zones of the kidneys. Laser therapy procedures were carried out with a device - "MILTA - F - 01" (Fig. 1).

Carrying out laser therapy procedures for patients with vulgar psoriasis

Table No. 1.

Irradiation zone	Frequency, Hz	power, W	Exposure, min.
Kidney projection	600	3 0-50	2 -4
Spine, area of segmental innervation	150	3 0-50	2 -4
Apex of the lungs	150	30-50	2 -4

Impact parameters: frequency 150 - 600 Hz, LED power 30-50 W, exposure to each zone - from 2 to 4 minutes, per course - 10 - 15 procedures (one procedure per day in the morning). Additionally, patients with vulgar psoriasis received: vitamin therapy of group "B" (B-1, B-6, B-12), antihistamines and diuretics, and externally – celandine cream. The ointment was applied to the affected surface 2 times a day throughout the entire period of RT.

Discussion of the results.

In the process of complex treatment using laser therapy, after 6-8 procedures, there was a reduction in the progression of the process, resorption of papular elements, and a decrease in skin itching. After 10-15 procedures of complex treatment using laser therapy, complete relief of the progression of the process, regression of papular rashes, and itching of the skin practically ceased. During the period of this examination, all patients with the vulgar form of psoriasis were dynamically monitored by a gynecologist. Despite the revealed dependence of the course of the vulgar form of psoriasis on the functional state of the reproductive system, only 12 (28.5%) women were found to have ovarian dysfunction during clinical examination. For a more objective assessment of the functional state of the pituitary-ovarian system in vulgar psoriasis, we considered it necessary to separately analyze the results of the blood levels of gonadotropic and sex hormones in 12 patients with clinical manifestations of ovarian dysfunction. Tables 1 - 3 show the results of determination of LH, FSH and estradiol in the blood plasma in both phases of the menstrual cycle in 30 women suffering from the arthropathic form of psoriasis and in 12 patients with the vulgar form of psoriasis with clinical manifestations of ovarian dysfunction, depending on the period of the disease.

1. Luteinizing hormone of the pituitary gland (LH). In all patients, during the period of exacerbation of the disease, the concentration of luteinizing hormone of the pituitary gland in the blood plasma was significantly reduced both in the follicular ($P < 0.05$) and luteal ($P < 0.05$) phases of the menstrual cycle (Table No. 2). The degree of decrease in the level of LH in the blood plasma in both phases of the menstrual cycle in all patients with vulgar psoriasis was approximately the same.

Table No. 2.

luteinizing hormone concentration (n IU/ml)

in blood plasma in patients with vulgar psoriasis (M± m)

Sick	Phase of the menstrual cycle			
	Folliculin		Luteal	
	exacerbation	Remission	exacerbation	remission
Vulgar form of psoriasis	5.8 ± 0.60 _ P < 0.001	9.9 ± 0.43 _ P < 0.001	5.6±0.36 P < 0.01	8.2±0.61 P < 0.01
Norm	16.0±0.22		12.8±0.48	

Note: P - significance of differences between the indicators of the period of exacerbation and remission of the vulgar form of psoriasis.

2. Pituitary follicle-stimulating hormone (FSH).

The concentration of FSH in the follicular phase of the menstrual cycle during exacerbation of the vulgar form of psoriasis in all patients did not differ significantly from the norm. During the period of remission, an increase in FSH concentration was observed (P <0.05) in relation to the period of exacerbation, but its amount did not go beyond normal values. In the luteal phase, the level of FSH during the period of exacerbation of the vulgar form of psoriasis significantly exceeded the norm, and during the period of remission its concentration was even higher than the age (P <0.001). However, no significant difference in the FSH content was found in patients (Table No. 3).

Table No. 3.

Follicle-stimulating hormone concentration (n IU/ml)

in blood plasma in patients with vulgar psoriasis (M± m)

Sick	Phase of the menstrual cycle			
	Folliculin		Luteal	
	Exacerbation	Remission	Exacerbation	remission

Vulgar form of psoriasis	18.0±0.70 P < 0.05	21.8±0.69 P < 0.05	11.3±0.71 P > 0.05	13.07±0.97 P > 0.05
Norm	14.3±0.29		7.5±0.63	

Note: P - significance of differences between the indicators of the period of exacerbation and remission of the vulgar form of psoriasis.

3. Estradiol. The content of estradiol in the blood plasma in all patients with vulgar psoriasis was significantly reduced in both phases of the menstrual cycle. The greatest degree of its decrease was observed during exacerbation of the disease. At the same time, the lowest estradiol content - in the follicular and luteal phases - was observed in women with concomitant ovarian dysfunction. During the period of remission of the disease, the concentration of extradiol in all patients increased insignificantly compared with the data during the period of exacerbation (Table No. 4).

Table No. 4.

Concentration of estradiol (n mol/l) in blood plasma in patients with vulgar psoriasis (M ± m)

Sick	Phase of the menstrual cycle			
	Follicular		Luteal	
	exacerbation	remission	exacerbation	Remission
Vulgar form of psoriasis	6.4±0.09 P < 0.05	8.4±0.23 P < 0.05	9.2±0.54 P < 0.05	7.6±0.67 P < 0.05
Norm	0.32 ± 0.001 _ _ _		0.6 2 ± 0.02 _ _ _	

Note: P - significance of differences between the indicators of the period of exacerbation and remission of the vulgar form of psoriasis.

Conclution. As a result of the studies, it was revealed that in all patients during an exacerbation of the vulgar form of psoriasis, the folliculin phase of the menstrual cycle is characterized by a low level of LH and estradiol in the blood, and the luteal phase is characterized by a low concentration of LH. During the period of remission of

the disease, in all patients in the follicular phase of the menstrual cycle, a pronounced hypoestrogenism.

The data obtained indicate the presence of dysfunction of the pituitary-ovarian system in patients with the vulgar form of psoriasis, manifested by insufficiency of the ovarian follicular apparatus, as well as luteal insufficiency. In both phases of the menstrual cycle, insufficiency of the regular mechanisms of steroidogenesis was noted

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