



The Role of Retinoids in Acne Treatment

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Abstract: Rational acne therapy remains an urgent task. The tactics of treating patients with acne is determined by the clinical form and severity of the disease, the gender and age of the patient, the effectiveness of previous therapy, the presence of concomitant diseases, the patient's compliance with therapy, the characteristics of the development and course of relapses, and their duration. According to current international recommendations, isotretinoin is one of the most effective drugs for the treatment of acne.

Keywords: acne, isotretinoin, teratogenicity, papulopustulosis, peeling.

INTRODUCTION

Acne (acne, acne vulgaris) is a disease that, in one form or another, affects up to 95% of the population of civilized countries during their life. Acne occurs not only in adolescence, but also in adulthood. According to Goulden V.S. (1999), acne is observed in 3% of men and 12% of women aged 25-48 years [1,2].

Acne disease (acne) in prevalence occupies one of the leading places among human dermatoses and is an important medical and social problem. According to numerous literary reports, acne is observed in 60-80% of adolescents and adolescents. [3,4]. A number of researchers consider acne the most common dermatosis that occurs at the beginning of puberty, reaches its greatest development in adolescence and slowly regresses in the early adult period, which is associated with physiological age characteristics [5].

In most patients with moderate and severe acne, irreversible post-inflammatory skin changes (post-acne) are formed, which bother patients no less than the manifestations of the disease itself, it is difficult are corrected, require expensive treatment and often remain for life [6,7].

Acne and its consequences cause mood swings, depression, reduce self-esteem, and lead to impaired psychosocial adaptation in patients of different age groups. In the treatment of acne in recent years, some success has been achieved, however, all currently known drugs for the treatment of acne have limitations in their use [8,9]. Therapy of severe forms of acne with isotretinoin at a recommended daily dose of 0.5-1 mg / kg body weight leads to a number of side effects (teratogenicity, lipid metabolism disorders, cheilitis, dermatitis, headaches, joint and muscle pains, hair loss, nosebleeds, etc.) [10,25]. According to the data, the presence of a large number of closed comedones in patients is a predisposing factor for the occurrence of an exacerbation reaction, which significantly complicates the treatment process and can lead to the formation of deep scars. Most of the side effects of isotretinoin

(except for teratogenicity) are dose-dependent, therefore, it seems relevant to optimize therapy aimed at reducing the daily and course dose of the drug, increasing the tolerance of treatment, while maintaining its effectiveness [11,12,24]. A particular problem is the treatment of patients with clinically pronounced hyperandrogenism, acne on the skin of the trunk, abscessing acne with granulations and the formation of fistulous tracts. Until now, the problem of rehabilitation of patients with the consequences of a long and severe course of acne remains unresolved [13,14,23]. None of the existing methods of systemic therapy for acne does not sufficiently eliminate existing skin defects. Various exfoliation methods are used to correct post-acne [15,16,22]. Glycolic or trichloroacetic acids are used mainly for mild to moderate acne and post-acne scars, since in severe inflammatory forms of the disease they are ineffective and can exacerbate the process. Deep impact methods (mechanical dermabrasion, laser resurfacing, deep peeling with phenol) are also used only after complete regression of the inflammatory process, when the scarring process is completely completed and the possibilities of correction are limited [17,18,19]. The efficacy of a combined anti-inflammatory peel containing alpha and beta hydroxyl acids, ascorbic acid and retinol in combination with the systemic use of low doses of isotretinoin for moderate to severe acne has not been previously studied [20,21]. Thus, acne and its complications represent an important dermatocosmetological problem with a social connotation, the solution of which will significantly reduce 4 psychosocial consequences of the disease and improve the quality of life of patients.

Purpose of the work - To evaluate the effectiveness of the use of combined peeling in combination with low doses of isotretinoin in inflammatory forms of acne

Materials and methods

The study involved 155 patients with papulopustular and nodular-cystic acne.

Inclusion criteria for the study: papulopustular or nodular cystic form of moderate to severe acne; the duration of the disease is 6 months. and more; ineffectiveness of previously used methods of therapy. Exclusion criteria: mild acne; pregnancy, existing or planned within the next year, liver and kidney disease in the acute stage.

The division into groups was carried out taking into account the wishes of the patients. Group No. 1, main: 87 patients received complex treatment with isotretinoin (in a daily dose of 0.01 - 0.3 mg / kg with subsequent correction) in combination with procedures including combined peeling with antioxidant and anti-inflammatory effect of Alpha-betaretinol skin foliator. Isotretinoin dose, frequency of procedures, duration of treatment were determined by the initial severity of the disease and the individual response of patients to the treatment. Group No. 2, control: 68 patients received a course of similar procedures without the systemic use of isotretinoin.

Home skin care was adjusted for patients in both groups.

The study included 113 women and 42 men aged 12 to 42 years, the average age was 22.37 ± 6.44 years. Of these, 116 (75.3%) had a papulopustular form of acne, 39 (24.7%) had a nodular-cystic form of the disease.

RESULTS AND DISCUSSION

The observation period for the patients ranged from 1 to 4 years. 116 patients were followed up for 2 years or more

Treatment results by group

	Clinical cure Significant improvement						Clinical cure Significant improvement					
	CTT		TT		OTT		CTT		TT		OTT	
	abs	%	abs	%	abs	%	abs	%	abs	%	abs	%
Total												

I group	41	93	26	72	20	67	3	7	10	28	6	20
Total	87 (79%)						19 (17%)					
II group	24	62	9	47	4	40	5	2	13	11	1	10
Total	37 (54%)						8 (12%)					

In patients who received treatment with a combination peel in combination with low doses of isotretinoin, 79% of cases showed a clinical recovery, and 17% - a significant improvement. Significant improvement in skin color and texture was observed in all patients. The course dose of isotretinoin did not exceed 40 mg / kg. The average course dose of isotretinoin was 12.3 ± 4.82 and 20.64 ± 8.21 mg / kg in patients with papulopustular and nodular cystic acne, respectively. The number of procedures ranged from 4 to 14, the average number of procedures was 6.51 ± 2.64 . A noticeable improvement in skin condition was observed in most cases after 4-8 weeks. The duration of treatment was 3-8 months. In 4 patients with nodular-cystic acne, to achieve a lasting effect, isotretinoin intake was required for 12-14 months. The heading dose in these cases was 70-110 mg / kg.

In the second group of patients, 45 people completed the course of treatment using only external therapy, which amounted to 66% of the initial composition of the group. Of these, clinical recovery and significant improvement were observed in 37 (54%) and 8 (12%) patients, respectively. In 23 patients (including 12 patients with severe and very severe acne), fresh inflammatory elements continued to appear against the background of an improvement in the general condition of the skin (shrinkage of pores, a decrease in the size and number of comedones, resorption of infiltrates, lightening of post-inflammatory spots and smoothing of skin texture). ... In this regard, isotretinoin in a daily dose of 0.05-0.3 mg / kg was added to the treatment. Within a month, significant positive dynamics was observed in patients of both groups. At the same time, in patients with moderate acne, a more pronounced dynamics of the resolution of inflammatory elements was observed in the main group compared to the control group (54 and 49%, respectively). This trend continued until the end of the element counting period. After 4 months of treatment, an improvement of more than 90% was achieved in all subgroups of patients, which indicates a high efficiency of therapy. The best results were observed in the group of patients with a moderate course of the disease who received complex therapy. The greatest deviation from the mean values was observed in the group of patients with severe acne who received only external therapy, which indicates a greater variability in response to treatment among this group of patients.

Complex therapy with the use of combined peeling in combination with low doses of isotretinoin was performed in 110 patients with moderate and severe acne and led to a decrease in sebum secretion, pigmentation, a reduction in the area of the sebaceous gland duct openings, and an evening of skin texture and color. The clinical effectiveness of the method was 96%.

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