



Modern Methods for Treating Severe Acne

Makhmatkulova G. M

Student of the 609 th group of the therapeutic Faculty
Department: Department of Skin and Venereal Diseases
Samarkand State Medical University, Samarkand, Uzbekistan

ABSTRACT

Acne is one of the most well-known chronic recurrent skin diseases, affecting mostly young people. The disease makes a significant negative contribution to the patient's psycho-emotional sphere and social adaptation, often accompanied by the development of dysmorphophobia and other mental disorders. Despite the apparent simplicity and clarity of the diagnosis. Acne treatment is aimed at preventing pathogenetic factors.

Topical therapy plays a major role in the treatment of mild to moderate acne. A single series of studies has demonstrated the great effectiveness of topical retinoids in their anti-comedogenic and anti-comedogenic properties. Anti-inflammatory effect, as well as topical antibacterial agents.

Treatment with these drugs is carried out strictly according to indications and under the supervision of a dermatologist with regular conduct of certain laboratory tests. Currently, a method for treating acne has been developed, taking into account the clinical form and degree

severity, which helps to increase the effectiveness of therapy, as well as accordingly, the patient's quality of life [1]. Topical agents are the first line of treatment for mild to moderate acne and can be used as part of complex therapy together with systemic antibiotics or retinoids for more severe forms of acne that do not respond to topical therapy [2].

Keywords:

organization of dermato-oncological care, acne.

Relevance: A generally accepted classification of acne has not been developed; All existing attempts at systematization are based on clinical manifestations or on assessing the severity of acne. The most complete is the clinical classification of G. Plewig, M. Kligman, 1993, 2000. When choosing a method of therapy, you should take into account the following nuances:

- lack of approved protocols for managing patients with acne, limited number of medical technologies;
- genetic predisposition determines the high duration of the main course of acne treatment

(4-6 months), and in addition the need for long-term maintenance therapy (3-5 years);

- presence in the choice of treatment tactics for the patient

Along with inflammation, its psychosocial status as well as the compliance of therapeutic interventions should be taken into account;

- the result of acne therapy is only likely the presence of a condition of influence in all conditions of pathogenesis, possibly in the main etiological as well as trigger mechanisms that cause exacerbation of this patient;

- only rationally depending on the severity of the course inflammation as well as the

predominance of such or other elements rash can guarantee positive treatment results;

- the need for cosmetological care of patients with acne.

Modern pharmaceutical market has a huge number of topical anti-acne substances, but the choice of products. The whole therapy is limited to aromatic retinoids, oral combined contraceptives and antibacterial agents.

The main goals of treating inflammation are:

- decrease in production;

- eliminating comedones, preventing their re-formation;

- reduction of bacterial contamination by *Propionibacterium acnes* and other microorganisms;

- anti-inflammatory effect [3].

<https://pharmateca.ru/archive/article/38344>

Antibiotic resistance is a serious problem worldwide and should be an important factor when choosing therapy. It is necessary to limit the use of antibiotics in situations where other treatments may be used [4]. The use of antibiotics for acne affects a lot of people, since resistance can occur both in those receiving treatment and in their immediate environment. Additionally, antibiotics are prescribed for a longer period for acne more often than for typical infections (months rather than days). A subantimicrobial dose of doxycycline is used in the treatment of acne due to its anti-inflammatory properties, but this treatment method has not been studied in detail regarding the possible consequences of the development of antibiotic resistance [5]. Until recently, no other classifications of acne were used in dermatology; the presented classification is traditional and used in Russia and throughout the world in both adults and children to assess the severity of acne. Recently, systems based on counting acne elements, and, in some cases, their distribution into zones have been used. Thus, one of such scales in European countries is the Global Acne Grading System - GAGS [6-7]. In recent decades, numerous data have been obtained from various researchers about the role of *Propionibacterium acnes* in the pathogenesis of acne. The following effects have been reliably established and studied: stimulation of the proliferative activity of cells at

the mouth of the pilosebaceous follicle due to an increase in the content of abnormal keratins; impaired differentiation of epidermal cells, increased their adhesion;

stimulation of sebum production processes with an effect on sebocytes in the retention stage. The immune mechanisms of acne formation have also been studied. In particular, under the influence of *P. acnes*, activation of toll-like receptors TLR-2 and TLR-4, antimicrobial peptides, matrix metalloproteinases, activation of the synthesis of pro-inflammatory cytokines interleukin (IL)-1 α , IL-1 β , IL by immunocompetent skin cells and epidermal cells occurs -6, IL-8, IL-12, tumor necrosis factor- α [6].

Materials and methods: The research material was literature data presented in scientific articles, textbooks, and magazines.

Research results: Acne belongs to a special group of skin diseases - psychosomatic dermatoses, which are accompanied by severe psycho-emotional disorders associated with the problem of "appearance defect". The predominant localization of the process on open areas of the skin causes patients, especially girls and women, deep mental suffering, reducing self-esteem, negatively affecting the quality of life, social status, professional activities, and personal life. S.A. Monakhov found in patients with acne a high frequency of psycho-emotional disorders in the form of anxious, hypochondriacal, asthenoneurotic symptoms, which were detected in 41% of the examined patients. A higher level of anxiety was noted among women compared to men. In the study by M.V. Goryachkina found that in patients with the papulopustular form of ulcer, anxiety-depressive disorders predominate, with anxiety syndrome more pronounced in men and depressive syndrome in women. W. Bowe et al. described in detail body dysmorphic disorders (belief in the presence of a physical defect or deformities) among patients with acne, emphasizing that such patients have a high risk of suicide attempts and may also pose a threat to their treating physicians [8-9]. L.S. Gold et al. in a double-blind, randomized study, we studied the effectiveness of combined therapy with doxycycline (100 mg/day) in 459 patients

with severe acne in combination with the use of adapalene gel, as well as BPO-AS, compared with the use of doxycycline + placebo externally. Treatment was prescribed at 12 weeks according to the usual regimen. It was discovered that the regression of non-inflammatory and inflammatory elements in patients of group 1 occurred more rapidly and was also of a more pronounced nature.

The effectiveness of the therapy was also confirmed by Digital UV fluorescence photography data, which clearly demonstrated an active reduction in *P. acnes* colonization when taking doxycycline in combination with adapalene AC gel.

This study showed significant effectiveness of a combination of systemic antibiotics as well as topical anti-acne agents in the treatment of severe forms of acne compared with antibiotic monotherapy [10].

Another study showed that the manifestations of retinoid dermatitis during the use of Differin gel are transient, mildly expressed and regress as therapy continues. It was noted that erythema, dryness, burning sensation, peeling of the skin were least pronounced and underwent more rapid regression in patients who regularly cleansed the skin with Cetaphil lotion before applying the gel [11].

Conclusion: To improve the condition of the skin during inflammation, it is important to adhere to all the doctor's advice, not to self-medicate and to undergo a course of prescribed therapy. Modern medicinal substances can help cope with the disease, but many need to be patient to see initial positive results. The drug retains its therapeutic effect in combination with local antibacterial agents, which determines the advisability of the combined use of Differin and Baziron-AS in the presence of papulopustular elements to achieve a more pronounced and long-lasting effect of anti-acne therapy.

Literature:

1. А.А. КУБАНОВ, Д.В. ПРОШУТИНСКАЯ, Т.А. СЫСОЕВА, АКНЕ, Учебно-методическое пособие, Москва 2015, 5-6.
2. Л.Р. Сакания, Д.Р. Мильдзихова, А.Л. Пирузян, И.М. Корсунская,

Стратегия терапии среднетяжелых и тяжелых форм акне, Russian 2022.

3. К. Глазкова, Т. Ф. Перетолчина, Е. В. Ютяева, Современные подходы к терапии акне, L. Glazkova, T. Peretolchina, E. Utyaeva Ural State Medical Academy. Ekaterinburg , 2008,112-113 .
4. World Health Organization. *The evolving threat of antimicrobial resistance—options for action*. Geneva: WFIO, 2012. URL: <https://apps.who.int/iris/bitstream/handle/10665/44812/97892?sequence=1>
5. Bikowski J.B. Subantimicrobial dose doxycycline for acne and rosacea. *Skinmed*. 2003;2:234–45. Doi:10.1111/j.1540-9740.2003.03014.x.
6. Eichenfield L.F. Diagnosis and evaluation of acne / L.F. Eichenfield
7. J.F. Jr. Fowler, S.F. Friedlander et al. // *Semin Cutan Med*. 2010. Vol. 29 (2).Suppl. P. 5-8.
8. Монахов С.А. Дифференцированная терапия акне с учетом тяжести кожного процесса и спектра психоэмоциональных расстройств. Дисс. канд. мед наук. М., 2005
9. Bowe W, et al. Body dysmorphic disorder symptoms among patients with acne vulgaris. *J Am Acad Dermatol* 2007;57:222–30.
10. Gold LS, Cruz A, Eichenfield L, et al. Effective and safe combination therapy for severe acne vulgaris: a randomized, vehicle-controlled, double-blind study of adapalene 0,1 %-benzoyl peroxide 2,5 % fixed-dose combination gel with doxycycline hyclate 100 mg. *Cutis* 2010;85(2):94–104.
11. Монахов С.А. Ретиноидный дерматит: неизбежная реальность? // Экспериментальная и клиническая дерматокосметология 2007. № 3. С. 62–3.