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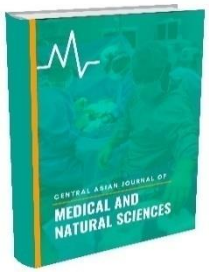

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Analysis of the Effectiveness of Treatment Using Topical Treatments in Patients with Acne Vulgaris

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Abstract: The article presents clinical and microbiological data on patients with acne.

This article provides information on the external use for acne vulgaris and seborrheic skin. We observed a patient with 58 acne vulgaris. The clinical outcomes of a positive improvement in facial vulgaris in patients with moderate and severe forms are described.

All patients with vulgar, seborrheic dermatitis are more likely to develop it. Patients with acne vulgaris may experience relative discomfort, depression, nervousness, isolation and, as a result, aggravate the condition of patients, complicate treatment, and lead to a decrease in the quality of life.

Key words: Acne vulgaris, seborrheic dermatitis, local treatment, acne care.

Acne is a chronic relapsing disease of sebaceous follicles caused by Propionibacterium acnes [2, 3, 8]. Acne, according to different authors, is a genetically determined disease and affects from 50 to 80% of people aged 15 to 32 years with a high family accumulation, more often in men [2, 6, 7]. The peak of the disease is observed during puberty - at the age of 16 to 19 years. The course of the disease is undulating, with frequent exacerbations [4]. According to modern concepts, the development of acne is based on the androgen-dependent process of hypersecretion of sebum, follicular hyperkeratosis and inflammation, which is the result of reproduction in the blocked sebaceous gland of P.acnes [15,16,17]. Persistence of P. acnes leads to complement activation, recruitment of leukocytes to the focus and suppression of local immune defense factors; severe acne is accompanied by an increase in IgE levels. The activity of the sebaceous glands is regulated by hormonal and neurovegetative mechanisms [20, 22,24].

The pathogenetic role of endocrine dysfunctions, violations of the relationship between the content of various families of sex hormones in the blood and tissues in the development of seborrhea and aspe vulgaris made it possible to use estrogens, antiandrogenic drugs, oral contraceptives of the latest generations for their treatment [1, 7, 9, 10, 11, 12, 15]. However, a clear methodological approach to determining the indications for the use of various hormonal drugs in patients with aspe vulgaris has not yet been developed.

According to its chemical composition, sebum is a mixture of lipids. One of the pathogenetic links in seborrhea and acne is the activation of hydrolysis of sebum triglycerides by bacterial lipases, which leads to an increased formation of free fatty acids and the development of an inflammatory process in the wall of the hair follicle [14,18]. At the same time, not only the quantitative, but also the qualitative composition of sebum changes, manifesting itself in a decrease in the concentration of polyunsaturated essential linolenic acid, which plays an important role in preventing follicular retention hyperkeratosis and the formation of comedones [7, 10]. Its deficiency can be due to both a lack of food (it enters the body only from the outside), and a lack of enzyme systems that ensure its intake and distribution in the body. Linolenic acid is the main regulator of keratinocyte differentiation, suppressing the expression of the enzyme transglutaminase (TG) [3]. This enzyme is involved in the synthesis of keratin of the 1st and 10th fractions, proteins (involucrin, loricrin and filaggrin), the main components of the cementing intercellular substance of corneocytes. Increased TG activity causes retention hyperkeratosis in the excretory ducts of sebaceous hair follicles. The predominance of the processes of proliferation and dyskeratosis over the desquamation of the epithelium ultimately leads to the closure of the ducts and the formation of comedones. A decrease in the concentration of linolenic acid also leads to an increase in the pH of sebum and a change in the permeability of the epithelium of the follicles. The barrier function is disturbed and conditions are created for the growth of microorganisms on the surface of the skin and inside the follicles [6].

Recent studies demonstrate that increased IL-1 release is observed in acne and seborrheic dermatitis. A key factor in these diseases is IL-1β-induced neutrophil infiltration of the skin. A number of studies have shown the effectiveness of a recombinant IL-1 receptor antagonist (anakinra), a soluble drug rilonacept (a solube decoy). Anti-IL-1α monoclonal antibodies (MABp1) and anti-IL-1β monoclonal antibodies (canakinumab and gevokizumab) are also used in studies with positive results [8].

The most commonly found fungus in patients with acne vulgaris is Malassezia furfur. It occurs in the acroinfundibulum between the most superficial keratin plates and also does not play a large role in the development of acne vulgaris.

One of the most effective external agents for the treatment of papulo-pustular form of acne are topical antiseptic preparations, to which there is no resistance to Propionibacterium acnes, in particular, Miramistin solution. To study the possibility of using miramistin in the treatment of patients with acne vulgaris, we conducted an appropriate clinical study.

The purpose of the work - The purpose of our research was to develop optimal methods of external therapy in patients with acne vulgaris with a clinical status.

As a home care, it is advisable to use special medical cosmetics, which give a therapeutic and preventive effect. One of the most promising creams for skin care in the period of exacerbation and remission is a therapeutic ointment contains; active substances betamethasone dipropionate (equivalent to betamethasone) 0.5 mg, clotrimazole 10.0 mg, gentamicin sulfate (equivalent to gentamicin) 1.0 mg

- cleansing gel
- fluid "global care",
- cleansing mask.

The key ingredient of the cream is a patented complex, which, together with clotrimazole, gentamicin sulfate, clioquinol and betamethasone dipropionate, has the following effects:

- antifungal;
- sebum-regulating;

- soothing;
- anti-inflammatory;
- keratolytic;
- antimicrobial.

Material and methods

Under observation were 57 patients with vulgar dermatitis and seborrheic dermatitis aged 15 to 45 years with a disease duration of 5 months to 10 years. Among them, there were 30 males and 27 females. Clinical studies were performed in all patients.

Clinical studies were characterized by the determination of the dermatological symptom scale index (DSSI) before and after treatment.

Result and discussion

To test these products, 2 groups of 57 people were created:

1) patients with manifestations of acne vulgaris (moderate form);

2) control - persons with increased greasiness of the skin.

Group 1 included 35 patients, including:

- with superficial pustules and comedones - 23 (72%).
- comedones - 12 (28%).

In group 2 - healthy faces - 32, of them with skin:

- fatty - 19 people (77%);
- dry - 13 people (23%)

After testing for 7-8 weeks, only 2 patients from the group (5%) showed a negative effect of Fluid in the form of erythema and new pustules. Most likely, it was a hyperergic reaction to one of the components of the product. The drugs were canceled, but it was not possible to trace which of them had worsened inflammation, since they were used in combination.

In 55 patients (97%) of those tested, there was a positive trend in the use of various means of ointment contains; active substances **betamethasone dipropionate (equivalent to betamethasone) 0.5 mg, clotrimazole 10.0 mg, gentamicin sulfate (equivalent to gentamicin) 1.0 mg,** namely**:**

- cleansing of pores, elimination of oily sheen (46 people - 80%);
- regression of inflammatory (papules, pustules) and non-inflammatory (comedones) elements (24 people - 42%);
- removal of pollution (56 people - 99%);
- decrease in sebum production (48 people - 84%);
- intensive skin renewal (14 people - 24%).

In the control group, the following was observed:

- restoration and hydration of the skin (32 people - 100%);
- elimination of dryness and peeling (7 people -23%);
- decrease in sebum production (25 people - 77%);

- elimination of irritation (12 people -38%);
- improvement of skin color and texture (20 people - 62%)

The ointment products provided contain; active substances **betamethasone dipropionate (equivalent to betamethasone) 0.5 mg, clotrimazole 10.0 mg, gentamicin sulfate (equivalent to gentamicin) 1.0 mg,** namely**:**

- these are products containing drugs with clotrimazole 10mg, gentamicin sulfate 1mg, beclomethazole dipropionate 0.25mg and clioquinol 20mg, which have a large range of actions. The products in this series improve the condition of the skin and can be used during the main treatment of acne. What's more, they keep the skin looking healthy, smooth, matte and radiant, ensuring gentle care even after treatment. The use of cosmeceutical ointment preparations contains; active substances **betamethasone dipropionate (equivalent to betamethasone) 0.5 mg, clotrimazole 10.0 mg, gentamicin sulfate (equivalent to gentamicin) 1.0 mg,** namely**:**

in case of acne, it is expedient and pathogenetically substantiated, allows to reduce the duration of therapy, increase the duration of remission, achieve sustainable positive aesthetic results in treatment and can be recommended as the main home medical and cosmetic skin care. Thus, the ointment means products contain; active substances **betamethasone dipropionate (equivalent to betamethasone) 0.5 mg, clotrimazole 10.0 mg, gentamicin sulfate (equivalent to gentamicin) 1.0 mg,** namely**:**

- dermatoaesthetic products with high efficiency and safety when used in solving problems with problem skin and acne-prone skin. It is presented in the form of a series of products that have a beneficial effect not only on problem skin, but also used to improve the condition of healthy skin.

In most cases, the patient is recommended to create comfort in cases of external therapy. As such a treatment, it is convenient to use medicated shampoos or lotions, balms. One of the representatives of this group was dilasen balm, which contains clotrimazole 10 mg, gentamycin sulfate 1 mg, beclomethazole dipropionate 0.25 mg and clioquinol 20 mg and other components that, in combination, have anti-inflammatory, antimicrobial, keratolytic properties. Sertoderm was used in patients with mild to moderate severity of seborrheic dermatitis, which contributed to the positive dynamics of the dermatological index of the symptom scale. It should be said that the use of sertoderm not only improves the dynamics of DISH in patients with vulgar dermatitis, but also the microbiological indicators of lesions. So, in patients in the lesions after treatment, a decrease in the level of colonization of pathogenic flora by 3.2 times was noted in the group treated with dilasen, respectively. In the process of using external drugs in patients, no side effects were noted. The products in this series improve the condition of the skin and can be used during the main treatment of acne. What's more, they keep the skin looking healthy, smooth, matte and radiant, ensuring gentle care even after treatment.

CONCLUSION:

1. The use of preparations for external use of Sertoderm cream for seborrheic dermatitis is effective due to its anti-inflammatory, antimicrobial action.
2. The use of cosmeceutical ointment preparations contains; active substances **betamethasone dipropionate (equivalent to betamethasone) 0.5 mg, clotrimazole 10.0 mg, gentamicin sulfate (equivalent to gentamicin) 1.0 mg,** due to its anti-inflammatory and antimicrobial action, it is preferably used in patients with moderate to mild seborrheic dermatitis. It should be noted that the use of drugs for ointment contains; active substances **betamethasone dipropionate (equivalent to betamethasone) 0.5 mg, clotrimazole 10.0 mg, gentamicin sulfate (equivalent to gentamicin) 1.0 mg,** can be used as maintenance topical therapy.

BIBLIOGRAPHY:

1. Молочков, В., Кисина, В., & Молочков, А. (2006). Угри вульгарные: клиника, диагностика, лечение. *Врач*, (3), 38-39.
2. Разнатовский, К. И., & Баринова, А. Н. (2011). Себорея и вульгарные угри: Эпидемиология, патогенез, клиника, лечение.
3. Karimkulovich, R. M. (2021). Analysis of the Efficiency of the Application of Balm "Dilasen" in Patients with Ache Vulgar. *Central asian journal of medical and natural sciences*, *2*(6), 9-13.
4. Karimqulovich, R. M. . (2022). THE EFFECT OF SERTODERM CREAM IN THE TREATMENT OF MODERATE AND SEVERE FORMS OF ACNE VULGARIS. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, *2*(6), 80–83. Retrieved from https://www.inovatus.es/index.php/ejmmp/article/view/1030
5. Rustamov Mirabbos Karimqulovich. (2022). A new combination therapy in improving the treatment of acne vulgaris. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, *2*(8), 38–41. Retrieved from https://inovatus.es/index.php/ejmmp/article/view/1153
6. Shukurov, I. B., Yaxshiyeva, M. F., &Rustamov, M. K. (2021). CONDITION OF CYTOKINS STATUS AT PATIENTS OF SEBORRHOEIC DERMATITIS. *Новыйденьвмедицине*, (1), 154-157.
7. Karimkulovich, R. M., & Axmedovich, M. F. (2021). The use of Retinoids in the Approach to the Cosmetic Treatment of Acne. *Central Asian Journal Of Medical And Natural Sciences*, *2*(6), 44-48.
8. Шукуров, И. Б., Яхшиева, М. Ф., & Рустамов, М. К. (2018). Характеристика себорейного дерматита. *Научный журнал*, (6 (29)), 109-110.
9. Шукуров, И. Б., Яхшиева, М. Ф., & Рустамов, М. К. (2019). КЛИНИКО-МИКРОБИОЛОГИЧЕСКИЕ ОСОБЕННОСТИ СЕБОРЕЙНОГО ДЕРМАТИТА. *Новый день в медицине*, (2), 335-336.
10. Шукуров, И. Б., Яхшиева, М. Ф., & Рустамов, М. К. (2018). Характеристика себорейного дерматита. *Научный журнал*, (6 (29)).
11. Шукуров, И. Б., Яхшиева, М. Ф., & Рустамов, М. К. (2019). ОПТИМАЛЬНЫЕ ПОДХОДЫ К НАРУЖНОЙ ТЕРАПИИ У БОЛЬНЫХ СЕБОРЕЙНЫМ ДЕРМАТИТОМ. *Новый день в медицине*, (4), 361-364.
12. Maxmudov, F. A., Raxmatov, O. B., Latipov, I. I., Rustamov, M. K., & Sharapova, G. S. (2021). Intravenous laser blood irradiation in the complex treatment of patients with cutaneous leishmaniasis. *湖南大学学报 (自然科学版)*, *48*(9).
13. Rakhmatov, O. B. (2021). IMPROVING THE PRINCIPLES OF TREATMENT IN PATIENTS WITH ZOONOTIC LEISHMANIASIS WITH THE IMMUNOMODULATOR GEPON AND METHYLENE BLUE USING THE ALT-VOSTOK DEVICE. *湖南大学学报 (自然科学版)*, *48*(9).
14. Raxmatov, O. B., & Xayitova, N. D. (2021). The use of "Sulfatcet-R"–Gel in Combination with Zinc Ointment to Determine its Effectiveness Against Acne Disease. *CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES*, *2*(6), 227-230.
15. Латипов, И. И. (2020). Эффективность метотрексата в лечении витилиго. *Новый день в медицине*, (4), 556-559.

16. Latipov, I. I. (2022). To assess the impact of vitiligo patients quality of life using the dermatological quality of life index (dlqi) questionnaire in combination therapy. *European journal of modern medicine and practice*, *2*(6), 41-47.
17. Ikromovich, L. I., & Bakhtiyorovich, K. B. (2022). Vitiligo: Modern views on etiology, pathogenesis and therapy methods. *Web of Scientist: International Scientific Research Journal*, *3*(8), 318-327.
18. Latipov, I., & Kholov, B. (2022). Studying the effectiveness and safety of the influence of medium doses of uva-1 radiation on the clinical manifestations of psoriasis. *Academic research in modern science*, *1*(11), 56-63.
19. Latipov, I. I. (2022). Effectiveness of 311 nm uvb phototherapy in the treatment of vitiligo. *European journal of modern medicine and practice*, *2*(8), 8-12.
20. Latipov, I. I., & Lapasov, O. A. (2022). Improvement of Methods for Early Diagnosis of Basalcellskincancer. *INTERNATIONAL JOURNAL OF HEALTH SYSTEMS AND MEDICAL SCIENCES*, *1*(4), 74-80.
21. Latipov, I. I., & Bakhshilloeva, R. E. (2022). International Journal of Health Systems and Medical Science.
22. Bakhtiyorovich, K. B., & Ikromovich, L. I. (2022). Psychosocial impact on a healthy lifestyle of patients with vitiligo among the population of Uzbekistan. *ACADEMICIA: An International Multidisciplinary Research Journal*, *12*(7), 197-204.
23. Kholov, B., & Latipov, I. (2022). Vitiligo's treatment algorithm. *Models and methods in modern science*, *1*(11), 23-29.
24. Kiryakov, D. A., Ganiev, A. A., Azizov, B. S., Nurmatova, I. B., & Latipov, I. I. (2021). EPIDEMIOLOGY OF MALIGNANT NEOPLASMS AMONG RESIDENTS OF THE TASHKENT REGION. *Web of Scientist: International Scientific Research Journal*, *2*(11), 342-346.