

New approaches to acne therapy  
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### Relevance

In recent years, there has been an increase in intractable forms of acne, which was noted at the European Congress of Dermatologists in Geneva. Well-known scientists (W. Griffiths and others) explain this growth not only by the deterioration of the ecological situation in general, but also by a decrease in the sensitivity of the known pathogenic flora to antibiotic therapy, etc.

Acne, or acne, is one of the most common skin conditions during puberty. The disease occurs in almost 100% of boys and 90% of girls, at the age of 12-24 is called acne vulgaris, in older age groups - acne tarda. Acne tarda occurs more often in women, has a continuously persistent course, starting from 25 years and older (40-54% of cases), localized in the face, less often in the upper third of the body [1].

According to modern concepts, acne is considered a constitutionally how determined disease. In the pathogenesis of acne, four factors are of prime importance. The initial link is hereditary hyperandrogenism, which manifests itself in the form of an increase in the amount of androgens of ovarian or adrenal origin in the blood and when excreted in the urine and is subdivided into adrenal, ovarian and mixed. Changes in the ovaries and adrenal glands can be both neoplastic and functional (polycystic ovary syndrome, a nonclassical form of congenital adrenal cortex dysfunction).

Under the influence of the hormonal factor, the volume of sebum increases, the production of which increases by 1.3 times with mild acne, 1.7 times with medium acne, and 1.9 times with severe acne. In the volume of sebum, the concentration of essential  $\alpha$ -linolenic acid, the main regulator of keratinocyte differentiation of the sebaceous-hair follicle (SVF) duct, decreases, and the expression of the transglutaminase enzyme increases, which leads to the predominance of dyskeratosis and epithelial proliferation processes and causes follicular hyperkeratosis with SVF closure. clinically manifested by open and closed comedones [1, 3, 4]. The obstruction of the duct creates favorable conditions for the reproduction of facultative anaerobes: *Propionibacterium acnes* and *Propionibacterium granulosum*, as well as other representatives of saprophytic and opportunistic microflora (*Staphylococcus epidermidis*, *aureus*; *Pityrosporum ovale*). These microorganisms produce lipase, which breaks down diacyl and triacylglycerides to glycerol and free fatty acids. These substances, together with antigens of microorganisms, attract neutrophils and phagocytes from the peripheral blood, producing IL-1 $\alpha$ , 1 $\beta$  and 8; TNF- $\alpha$ , activating the enzyme cyclooxygenase and stimulating the release of hydrolytic enzymes and nitrogen monoxide from neutrophils, T-

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lymphocytes, monocytes and eosinophils, leading to the destruction of the sebaceous gland wall with the release of its contents into the dermis and the development of an inflammatory reaction in the form of papulopustular and nodular-cystic elements. In addition, *P. acnes* is able to induce the expression of B-defensins, cationic peptides of the immune system that are active against bacteria, fungi, and many viruses. In addition to direct anti-infective action, they perform many other important functions: they act as mediators of inflammation, affect chemotaxis, and have immunomodulatory, cytotoxic activity. Recent studies have shown that *P. acnes* can activate the insulin-like growth factor 1 and type I IGF receptor (IGF 1 / IGF - R1) system in the epidermis, acting as insulin and promoting keratinocyte proliferation. *P.*

Modern acne therapy is aimed mainly at correcting the dermatological, hormonal-endocrine and psychoemotional state of the patient and affects the main pathogenetic links of the disease. However, it should be noted that the modern arsenal of pharmaceutical preparations cannot completely cure this problem due to the resistance of most pathogens to the therapy with the formation of a continuously recurrent course of the disease.

The purpose of our study was to develop new approaches to therapy acne.

#### Materials and methods

We observed 30 female patients with acne over the age of 25 years ( $31.4 \pm 1.5$ ) with a disease duration ranging from 6 months to 5 years. The diagnosis of acne vulgaris was verified by generally accepted academic criteria, taking into account complaints, anamnesis, and physical data. All patients had moderate to severe acne, characterized by the presence of papules, pustules and comedones with localization on the face and neck. To assess the severity of the clinical manifestations of acne, the dermatological index (DIA) was used, taking into account the number of comedones, papules, pustules and nodules according to the following parameters: single <5 points, moderate 6-15 points, large number> 15. Interpretation of the results was carried out according to the following parameters: DIA <5 - mild, DIA 6-10 - moderate-severe and DIA 10-15 - severe acne.

#### Research results

The ART method made it possible to reveal the role of geopathogenic, electromagnetic, radioactive, psychovegetative, endocrine, chemical and parasitic loads in the formation of acne. The states of enzyme systems were determined,

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microelement and acid-base balance. Target organs and meridians with maximum energy deviations were identified. The etiology of the pathological process was clarified using test pointers Intox 1, 2, 3 with subsequent filtration through them of nosodes of viruses, bacteria, fungi, parasites.

Additionally used bacteriological, laboratory, instrumental research methods.

It should be noted that in patients with acne, fermentopathy with a deficiency of enterokinases is most common, as a result of which digestion is disturbed (dysbiosis) and a deficiency of vitamins is created (especially, groups B, A, D<sub>3</sub>) and trace elements (iodine, zinc, selenium, magnesium, calcium) in the body, including the skin (in 27 people).

Violation of acid-base balance and substantial toxic burden, lymphatic burden and blockade of the mesenchyme of 1-3 degrees and its sublayers were verified in 100% of cases. Indication of food allergy, intolerance to a number of food products and inadequate nutrition (more often coffee, chocolate, bakery products) - 83% of cases, psychovegetative stress and stress of the endocrine system of 3-4 degrees - 90% of cases.

Particularly noteworthy was the viral burden (herpes simplex virus type 1, type 2, human papillomas, CMV, Epstein-Barr), parasitic, bacterial and mycotic burdens, which occurred in each patient under study, and the most frequently tested roundworms (hookworms, strongyloids, roundworms, pinworms), acarida demodix folliculorum. The bacteria were represented by strains of Staphylococcus epidermidis, aureus, hemolytic streptococcus (A, B), Proteus, Pseudomonas aeruginosa and saprophytic flora, including Propionibacterium acnes, Propionibacterium granulosum, Pityrosporum ovale, etc.

The maximum load on the detoxification organ - the skin - was noted. The therapeutic strategy was selected taking into account the biological indices of the skin organ.

Then homeopathic and drainage remedies were tested. The food products were evaluated for compatibility. An autonosome was created individually from the sites of rashes on the skin of the face and neck. We used induction programs to relieve psychovegetative and endocrine disorders. The next stage of treatment was carried out with the use of BRT and the removal of mesenchymal blockages.

The most important in the treatment was attached to the normalization of the digestive and urinary systems, correction of acid-base balance, and lymph cleansing. The drugs used were Roy Martina (Detox and Endotox groups) and Heel (lymphomyosot), sorbents and pectins. Products that aggravate metabolism were necessarily excluded, and seroimmunes were used.

The results of the effectiveness of therapeutic measures were assessed by the disappearance of skin rashes, the subjective assessment of patients, laboratory parameters and ART data (biological indices, etc.). Positive dynamics was observed already after 1.5 months from the start of treatment.

### Conclusion

Thus, a fundamentally new approach to acne therapy, based on the use of lymphatic drainage agents and detoxification of the body, adequate nutrition with correction of vitamin and mineral deficiency, acid-base balance and normalization of the function and flora of the intestine, other excretory organs, made it possible to achieve a pronounced clinical effect with complete elimination diseases in a short time.

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