



Development of a Complex Method for the Treatment of Chronic Pyoderma

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Abstract: this article summarizes the study of the study group consisted of 132 patients, including 66 men and 66 women aged 16 to 73 years, with a disease duration of 3 months to 10 years. According to the clinical forms of the disease, the group with chronic furunculosis was the most numerous - 75 (56.8%). Hidradenitis was detected less frequently — 9.1%, and chronic ulcerative and ulcerative-vegetative pyoderma — 8.3%. The rest of the patients - 25.8% were in the group with chronic forms of streptostaphylo-derma (impetigo, ecthyma, sycosis vulgaris). The objective of our work included the development of a complex method for the treatment of chronic pyoderma using a bacterial multicomponent vaccine.

Key words: treatment, multicomponent bacterial vaccine, fusidic acid.

Introduction: Pyoderma (from other Greek πύον - pus and δέρμα - skin) is a purulent skin lesion that occurs as a result of the introduction of pyogenic cocci into it and proceeds with the formation of redness, exfoliation (peeling, peeling), edema and seals. One of the most common skin diseases, affecting more than 111 million children worldwide, making it one of the three most common skin diseases in children, along with scabies and fungus.[3]

It can occur primarily on healthy skin or secondarily as a complication of various, especially itchy, diseases. Factors predisposing to the formation of pyoderma are minor injuries (cuts, injections, scratches), skin contamination, overheating or hypothermia, dysfunction of internal organs, the central nervous system, metabolism, individual hypersensitivity to pyogenic infection.

There are acute and chronic staphylo- and streptoderma, which can be limited and widespread, superficial and deep. Perhaps the simultaneous defeat of the skin by both types of cocci - the so-called streptostaphylo-derma.

Staphylo-derma is characterized by localization of the process in the area of sebaceous hair follicles and apocrine glands. This form of pyoderma includes:

- ✓ ostiofolliculitis (abscess up to lentil size, located at the mouth of the hair funnel and penetrated in the center by hair);
- ✓ Folliculitis (infection penetrates deep into the hair funnel).

In the chronic course of which and the presence of multiple ostiofolliculitis develops sycosis, furuncle, carbuncle, hydradenitis.[3][4] Although the last three are incorrectly attributed to pyoderma.

Streptoderma is characterized by a superficial lesion of the skin with the formation of a thin-walled flaccid vesicle with cloudy contents (conflict) and a halo of inflammation around it. The conflict dries up with the formation of a serous-purulent crust, which disappears without a trace.

Acute streptoderma includes impetigo, diffuse superficial streptoderma and ecthyma (an ulcer that forms under a dried conflict).

Chronic streptoderma is a simple lichen of the face.

There is also near-wound pyoderma, which differ in localization directly near the wound, and are a complication of the wound process. The most common is folliculitis, which affects areas of the skin with hairline.

Purpose: development of a complex method for the treatment of chronic pyoderma using a bacterial multicomponent vaccine Immunovac VP-4 and fusidic acid.

Materials and methods: the study group consisted of 132 patients, including 66 men and 66 women aged 16 to 73 years, with disease duration of 3 months to 10 years. According to the clinical forms of the disease, the group with chronic furunculosis was the most numerous - 75 (56.8%). Hidradenitis was detected less frequently — 9.1%, and chronic ulcerative and ulcerative-vegetative pyoderma — 8.3%. The rest of the patients - 25.8% were in the group with chronic forms of streptostaphyloiderma (impetigo, ecthyma, sycosis vulgaris). microbiological (bakposev with the determination of sensitivity to 13 antibiotics), immunological included an assessment of the functional state of neutrophils by determining the FI, cytological index (NST CI), latex activation index (Totolyan A.A., Freidlin I.S., 2000); determination of a subpopulation of lymphocytes with surface markers CD3, CD4, CD8, CD16, CD21, CD23, CD25, CD72, HLA-DR, CD4/CD8, the content of total immunoglobulins Ig A, G, M classes and Ig E; determination of the relative affinity of Ig G antibodies (SSC Institute of Immunology, Ministry of Health of the Russian Federation, 1995). The study of the level of interferon was carried out according to the method of Grigoryan S.S. et al., 1988.

2% cream \ ointment Fucidin and Fucicort; polycomponent vaccine of antigens of opportunistic microorganisms Immunovac VP-4, dry for immunotherapy and staphylococcal vaccine, dry for immunotherapy, developed at NIIVS them. I.I. Mechnikova RAMS, Moscow.

Results: microbiological study was carried out in 122 patients with various forms of pyoderma. It was revealed that staphylococci prevailed in the lesions, and in monoculture in 57% of patients (*S. aureus* - 47%, *S. epidermidis* - 10%), and in association with streptococci in monoculture - 8% and the most frequent associations of microorganisms was the combination *S. aureus* with *Str. haemolyticus* - 14.8%, *Str. pyogenes* - 6.6%. *Pseudomonas aeruginosa* was found in 4.9% of patients. In isolated cases, *Klebsiella*, *Proteus*, *Enterococcus* and *Enterobacter* were detected in monoculture.

Polyresistance to antibiotics widely used in clinical practice in the treatment of pyodermatitis: ampicillin, erythromycin and tetracycline, gentamicin, doxycycline and azithromycin (45%; 35%; 35%; 24%; 13% and 12%, respectively) and high sensitivity to fucidin, cefuroxime, ciprofloxacin, cefazolin (93.4%; 91%; 88.7% and 87%, respectively).

Immunological disorders in patients with pyoderma were characterized by impaired cellular (decreased phagocytic activity of neutrophils, the level of subpopulations of CD8+ lymphocytes) and humoral (high level of specific low-affinity antibodies to antigens of opportunistic microorganisms) components of immunity, with reduced induced production of IFN- γ and IFN- α .

The inclusion of Immunovac VP-4 vaccine in the complex therapy of patients with chronic pyoderma leads to a significant increase in the functional activity of neutrophils, an increase in subpopulations of CD4+ lymphocytes; CD8+; CD72+, titers of specific antibodies in patients with initially low values, antibody affinity, as well as induced production of IFN- α and IFN- γ .

The therapeutic effect of Immunovac VP-4 (84.7%) is comparable to the effect of the staphylococcal vaccine (70.3%), significantly exceeds the results of basic therapy (41.6%) and correlates with the dynamics of the severity of clinical symptoms. Materials of a clinical study of Fucidin and Fucicort preparations showed their high efficiency and prospects for use at all stages of inflammation in the treatment of superficial pyoderma (impetigo, folliculitis), sycosis, furunculosis, as well as in the treatment of secondarily infected dermatoses (eczema, atopic dermatitis) as in mono-, and combination therapy.

Conclusions: before prescribing immunotherapy with vaccines (Immunovac VP-4 or staphylococcal vaccine), it is advisable to identify the pathogen, determine sensitivity to antibiotics and assess the immune status individually according to indications. Their use is advisable both in the period of remission for the prevention of exacerbations, and in the recurrence of pyoderma. If necessary, it can be used simultaneously with antibiotics, pathogenetic and other external (Fucidin and Fucicort) preparations. Their use with other immunomodulators is contraindicated. In the absence of a clinical effect, other immune preparations should be prescribed no earlier than 3 months after immunotherapy. Introduction Immunovac VP-4 is produced in accordance with the instructions for use in doses from 0.05 to 4.0 ml. Repeated courses of Immunovac VP-4 should be prescribed in cases of clinical symptoms, but not earlier than 6 months after immunotherapy.

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