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GENERAL HEALTH THERAPY FOR FUNGAL LESIONS OF THE ORAL MUCOSA

Fungal lesions occupy a dominant place among diseases of the oral mucosa. A number of factors contribute to the growth of the fungal infection: the deterioration of the socio-economic sphere and the state of the environment, the complexity of diagnosing mycoses, the appearance of mixed infections and complicated forms of the disease, a significant use of biologics and other medications that trigger off the activation of fungi, an increase in the number of patients with immunodeficiency, the use of antimetabolites for therapeutic purposes, etc. [9, 10, 12].

When correcting the condition of the oral mucosa having fungal lesion, the rational use of general methods and various pharmacological agents is considered as a background of antimycotic therapy. Despite the therapeutic efficiency of antifungal drugs, the treatment of patients with candidal lesions (especially generalized forms, with recurrent course) cannot be limited to those drugs. The ultimate success and complete recovery of the patient depend on the general condition of the macroorganism. With a tendency to chronic and recurrent course of candidal lesions of the patient due to somatic, infectious and other diseases, for which active antibacterial therapy is carried out, the use of the most active antifungals may be inefficient, since severe disorders of protein, carbohydrate, vitamin and mineral metabolism develop [2, 5, 8, 11]. Depletion of the body's vitamin resources is of essential importance as well.

It was proved that the tolerability of systemic antibacterial drugs increases with the addition of various vitamins to the comprehensive treatment of the patient with the disease. The prescription of systemic drugs, viz. adaptogens, biostimulants, vitamins, especially those of the B group (thiamine bromide, pyridoxine hydrochloride), multivitamins, to the therapeutic and preventive complex therefore improves the

therapeutic effect, and together with a balanced diet helps to enhance the protective factors of the human organism.

The occurrence of changes in associative microbial relationships and eubiosis disorders, especially against the background of taking antibiotics and sulfonamides, leads to the disruption of endogenous synthesis of Group B vitamins and vitamin K, as well as the disruption of their absorption, with the subsequent development of hypovitaminosis due to the blockage of cell enzymes by antibiotics, which increases the severity of clinical manifestations of candidal lesions in the oral cavity [2, 3, 5].

Thus, for example, with a deficiency of vitamins B_1, B_2, B_6, headache, general weakness, hair loss, nail changes, angular cheilitis, stomatitis, and dermatitis in the nose area, as well as bowel, heart and peripheral nervous system dysfunctions are observed. Since endogenous synthesis of vitamins is observed in this group of patients, the additional introduction of vitamin medications to the comprehensive treatment of dysbiosis is pathogenetically justified. In this case, it is aimed at one of the links in the pathogenesis of the disease, and is considered as a replacement therapy [9, 11]. Under its influence, the functions of the digestive system and the regeneration of its mucous membrane improve, and dystrophic processes in organs and tissues slow down. Conversely, even at the early stages of dysbiosis, a deficiency primarily of the B vitamins and the nicotinic acid is observed.

In the winter-spring period, due to the decrease in the content of vitamins in vegetables and fruit, it is recommended to prescribe vitamin A, C, E medications with antioxidant effect in therapeutic doses [6, 7]. B vitamins are components of enzymes that catalyse the metabolism of carbohydrates, lipids and proteins.

For example, Vitamin B_1 (thiamine) has comprehensive physiological functions. The daily dose for children aged 5-6 years is 1.2 mg, for children aged 14-17 years it is 1.7-1.9 mg, while for adults it is 2 mg. Vitamin B_1 is found in the germs and husks of wheat and oat grains, as well as in the yeast. It is prescribed internally, while in the event of absorption disorders in the intestine it is prescribed to be introduced parenterally. For fungal lesions treatment, the drug called thiamine

bromide is used: in tablets of 0.01 and 0.02 g; in ampoules of 1 ml, 3% or 6% concentration, 1 time a day up to 10 to 15 injections per treatment course.

Vitamin B_2 (riboflavin) is found in meat and dairy products, as well as in peas, germs and husks of cereals, in tomatoes, carrots and apricots. The daily requirement is 2.5 mg. It is used to eliminate the side effects of antibiotics' application. The dosage of the tablet is 0.005 and 0.01 g. There is also a 5% riboflavin liniment.

Vitamin B_5 (calcium pantothenate) is produced in the human body in significant quantities by Escherichia coli. A deficiency of this vitamin is possible when the intestinal microflora is suppressed by antibiotics, sulfonamide drugs, as well as with increased consumption of it in the body during the course of infectious diseases. Vitamin B_5 facilitates and enhances the absorption of potassium from the intestines thereby improving excitation through nerve synapses. It also stimulates the synthesis of corticosteroids. It is prescribed to be taken 0.1 g 3 to 4 times a day for 1 month.

Vitamin B_6 (pyridoxine hydrochloride) stimulates metabolic processes in mucous membranes. It is partially synthesized by the intestinal microflora. It is found in animal organs, fish, and milk. A 5% solution of this vitamin is used, 1 ml once a day, ca. 10 to 15 injections per treatment course.

Vitamin C (ascorbic acid), 5% solution, 1 ml once a day, ca. 10 to 15 injections per treatment course; Ascorutinum No. 50, 1 pill 3 times a day for 10 to 25 days; nicotinic acid, 1% solution 1 ml 1 time per day up to 10 to 15 injections per treatment course.

It is also efficient to use vitamin complexes such as MULTI-TABS, ALPHABET-DIABETES, KVADEVIT, DECAMEVIT, REVIT, UNDEVIT, DUOVIT, NEUROVITAN®, etc. For example, one of the characteristic representatives of this group is **NEUROVITAN®**. This complex vitamin medication contains high doses of B vitamins (B_1, B_2, B_6, B_{12}). It is efficient in the comprehensive therapy of dysbiosis. This medication is not only not inferior to traditional vitamin B drugs administered parenterally, but also surpasses them in the rate of clinical improvement, in particular, the elimination of pain. The recommended dose of the

medication is 1 tablet 3 times a day. The treatment course lasts from 10 to 30 days [11].

The NEUROBEX® vitamin medication that includes a combination of the B vitamins (thiamine, pyridoxine, and cyanocobalamin) has a pronounced therapeutic effect. This medication is prescribed against the background of taking antibacterial drugs. NEUROBEX® is prescribed to be taken during meals, 1 to 2 dragées 3 times a day for 20 to 25 days [1].

Ensuring sufficient active and passive absorption of the B vitamins and maintaining them in consistently high concentrations in the body is possible with the use of the MULTI-TABS medication [4] that contains vitamins B_1, B_2, B_6, B_{12}, nicotinamide, as well as pantothenic and folic acids. It is prescribed from the age of 10, 1 tablet 1 to 3 times a day. It can also be taken during pregnancy and breastfeeding.

The expediency was established of supplementing the basic therapy of candidal lesions of the oral mucosa with a complex of antioxidants that included vitamin E. Vitamin E inhibits lipid peroxidation, normalizes microcirculation and tissue regeneration [10, 13].

The efficiency of treatment was determined by a statistically significant decrease in the content of the malondialdehyde in the oral fluid against the background of a significant clinical improvement in the group of patients examined.

The study of the efficiency of treatment of candidal stomatitis using a treatment-and-prevention complex that included the Supradyn® vitamin medication was corroborated by the positive dynamics of clinical indicators and bacteriological data [3, 14]. The pharmacological properties of Supradyn® are conditioned by the complex of vitamins and minerals contained in the drug. Due to that, metabolic processes are regulated and coordinated, as well as the normal state of blood vessels, the immune status, the microsomal drug metabolism and the detoxification are maintained.

Consequently. Supplementing the basic therapy of candidal lesions of the oral mucosa with vitamin medications and vitamin-mineral complexes optimizes the regimen of the treatment-and-prevention set of measures, makes it possible to reduce significantly endogenous intoxication, to accelerate clinical improvement, and creates favorable conditions for the rehabilitation of the group of patients in question.

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