

Criteria for Early Diagnosis and Treatment of Candidiasis of the Oral Mucosa

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ABSTRACT

The analysis of special literature devoted to the relationship of diseases of candidiasis of the oral mucosa is carried out. Based on the above data, the authors came to the conclusion that candidiasis of the oral mucosa has not been studied enough and further scientific research is required.

KEYWORDS: *oral mucosal disease, candidiasis, prevention.*

Microbes populate the human body from the moment it is born. Getting on the skin and into the mouth of a newborn at the time of its passage through the birth canal of the mother, they settle throughout the body: they live on the skin and nails, mucous membranes of the oral cavity, intestines, respiratory tract and even in internal organs. Human health depends on a delicate balance between "friendly" and pathogenic microorganisms. When the growth of fungi, always living inside us, gets out of control, a serious disease occurs. Mention of candidiasis lesions (infections) of the oral cavity was first discovered in Hippocrates in the IV century BC (377 BC). As a human disease, thrush was named by Hippocrates stomata aphtoidea, and by Gallen – aphta alba infantu. The translation into Russian of the Greek word "candida" means "a candidate in a white robe (clothing)" (in ancient Greece, senators dressed in white clothes, which indicated purity and purity). The term "thrush" (monilia) was first used by botanists when describing the lesion of vegetables in 1751 [1, 4]. Local descriptions of candidiasis lesions were made in 1771 and 1784. Candida albicans was first isolated from a tuberculosis patient in 1844, in 1849 yeast-like fungi were found in vaginal candidiasis, and in 1853 - in systemic infection [1].

The introduction of antifungal agents of the 3rd generation — triazoles (itraconazole, fluconazole) and terbinafine can rightly be called the cause of a real revolution in the treatment of mycoses. For the first time, it became possible to safely treat and prevent a number of deep mycoses and, no less importantly, to cure dermatomycosis and onychomycosis in a short time. The development of progressive schemes of systemic therapy with 3rd generation drugs has made the treatment of skin infections widely available. Only now systemic therapy has become the basis for the treatment of dermatophytosis. In parallel with the introduction of these funds, new dosage forms of local antimycotics have been put into clinical circulation: aerosols, shampoos and nail polishes.

The objectives of this guide are to familiarize attending physicians with antifungal medications currently available in Russia. The constantly changing situation in the pharmaceutical market of the country leads to the emergence of new analogues of existing antimycotics, new dosage forms. Less often there are drugs with new active substances. Some drugs and their forms, widely used in therapeutic practice, have now become unavailable. At the same time, the rich variety — more than 100 names and more than 20 dosage forms — of available antifungal drugs allow Russian doctors to choose the right remedy according to the nature and form of fungal infection. We hope that this guide will help you make the right choice [2].

Various species of Candida inhabit a variety of ecological niches. All these yeast-like fungi are widespread in nature. The term "yeast", as applied to the taxonomy of fungi, is not official. It is most often applied to fungi of the Saccharomycetaceae family (class Endomycetes, order Ascomycota),

and "yeast-like" organisms are understood to be forms that reproduce mainly by budding cells, without implying any taxonomic relationship between them. 6 Thus, out of more than 2000 genes identified in *C.albicans*, only 100 (5%) have molecular homology with *Saccharomyces* 7.

Yeast differs from mold fungi (molds) in two ways: firstly, yeast colonies on nutrient media are similar to bacterial ones - smooth, pasty, grow after 48-72 hours; secondly, when yeast microscopy reveals oval or round cells of different sizes (budding process); cell sizes – up to 10 microns. The same morphological and cultural signs are present in *Candida*. [3].

It is known that fungal infections occupy one of the key positions among diseases of the oral mucosa in terms of prevalence among the population and the severity of possible complications for the patient's body.

In recent years, all over the world, and especially in developed countries, there has been a significant increase in the number of fungal diseases caused by yeast-like fungi of the genus *Candida*.

According to recent studies, candidiasis of the oral mucosa is one of the most common diseases, which is confirmed by an increase in its prevalence among other diseases of the oral mucosa to 63%.

Based on the data of modern literature sources, the treatment of candidiasis should be comprehensive, with repeated courses and an individual approach. When carrying out therapeutic measures, the etiology, nature and duration of the disease are taken into account [4,5].

Candidacy is statistically determined in 5% of infants, while in the elderly this indicator increases to 60%. However; the true manifestation of pathogenic properties of *Candida* fungi depends mainly on the state of the macroorganism. The main role in the development of candidiasis is played by the weakening of the immune system. It is the state of the functional system of the oral cavity of each individual, taking into account his age, hygiene skills and other factors, that characterizes the ecosystem as a whole. Candidiasis usually occurs against the background of a more or less pronounced immunodeficiency or imbalance of the immune system [6].

Severe concomitant diseases can contribute to the development of candidiasis: malignant neoplasms, HIV infection, and tuberculosis, endocrinopathy (diabetes mellitus, hypothyroidism, hypoparathyroidism, hypo- and hyperfunction of the adrenal glands). Diseases of the gastrointestinal tract, especially low acidity of gastric juice and achilia, often cause the development of candidiasis of the oral mucosa.

The appearance of candidiasis of the oral mucosa is facilitated by long-term treatment with corticosteroid drugs, cytostatics, which suppress the body's immune system and increase the virulence of yeast-like fungi [7,8]

The use of miramistin in combination with drug therapy of oral candidiasis for 3 months reduces the severity of the inflammatory process and the formation of plaque and provides a stable positive clinical effect, which is confirmed by the long-term normalization of cytological and microbiological parameters.

The data obtained during the study clearly indicate that in the treatment of candidiasis of the oral mucosa, it is necessary to influence not only the causative agent of the infectious process, but also all predisposing factors of the disease. Therapy aimed at all links of the pathological process makes it possible to increase the effectiveness of treatment and, in addition, contributes to achieving a long period of remission of the disease. [9]

Premedication in the broad sense of the word is understood as the introduction of any drug within the framework of dental treatment. It would be wrong to assume that the sole purpose of drug preparation is to remove the fear of treatment. Although this task is important, but at the same time it

is far from the only one. [10] Drug preparation is based in pediatric dentistry on two main indications: firstly, it is used to ensure a calm course of treatment during prolonged and serious interventions, and secondly, to improve conditions in the treatment of children who do not cooperate with a doctor. For younger children, it is preferable to use sibazon. It can be used 20-25 min. before therapeutic manipulations, 1% diphenhydramine, suprastin, tavegil, pipolfen (in solution). [11,12]

The use of these drugs allows to eliminate the emotional and vegetative components of pain (reduction of anxiety, fear, anxiety, elimination of psychovegetative complications manifested by tachycardia, hypertension, hyperglycemia, asthmatic attack, fainting or collapse), as well as to reduce the frequency of general complications, which are more associated with the psychoemotional stress of the patient, significantly improve the effect of anesthesia and potentiate local anesthesia [13,14]

Thus, the above literary analysis-scientific, epidemiological, clinical, sociological and experimental studies, showed that a long-term modern study is required in the study of pathology, clinic, diagnosis and prevention of candidiasis of the oral mucosa.

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