

MODERN METHODS OF DIAGNOSTICS OF LICHEN PLANE

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Annotation: Recently, scientists around the world have been paying great attention to the problem of diagnosing and treating chronic diseases of the oral mucosa. The main problem for studying the epidemiology of LP is the differences not only in the frequency of patients visiting dentists and dermatologists separately, but also in the analysis of the assessment of the frequency of simultaneous lesions of the oral mucosa and skin, naturally, separately when patients visit dentists and dermatologists.

Key words: Defensins, flowmetry, fluctuations in blood flow, infections.

Lichen planus (LP) is one of the most common and clinically manifest mucocutaneous dermatoses. According to different authors, the population frequency of LP (0.4-1.9%) varies in different regions of the world and shares with other dermatoses. The main trends in the development of dentistry show the practical necessity of using modern diagnostic technologies in the complex treatment of patients [10; c. 11 12,].

Effective diagnosis can be successful for successful therapy using modern technologies in dentistry. The system of modern dental care for the population can provide a decent level of people's health. [4].

Defensins - cationic peptides of the immune system, active against viruses, bacteria, fungi, play a leading role in protecting the host from infections that are detected in the diagnosis of LP [3].

LDF method - laser Doppler flowmetry, which is a functional method that objectively records the state of blood flow in the capillary system. LDF-metry is a non-invasive method, its advantage lies in its high information content, objectivity and the ability to assess the state of blood flow fluctuations in the desired area of study [4]. The use of LDF with spectral analysis has a high sensitivity to various changes in microhemodynamics, has superiority over other functional methods for studying the microvasculature, and therefore makes it possible to assess the functional mechanism of blood flow in real time [2].

In patients with LP, the clinical picture is combined with changes in the dental status, indicators of hygienic indices of the oral cavity, which depend on the severity of LP of the OM [8]. It has been proven that the degree of hygienic violations of the oral cavity during the development of LP OOM directly affects the clinical course, and subsequently the quality of therapy and the prognosis of this disease [2-8].

Candida fungi is found during a bacteriological study. albicans, which is a negative factor in the malignant malignancy of LP due to the production of the carcinogenic compound N-nitrobenzyl-methylamine [4].

The oral cavity has a local immune defense mechanism against infection, in addition, it has a general immunity that protects the organs and tissues of the body. The effectiveness of



local protection entirely depends on the following factors: the integrity of the oral mucosa, the status of the lymphoid system, as well as changes in the lymphoid tissue that form borderline conditions and predisposition to certain diseases and pathological conditions, the level of humoral - IgA, IgM, IgG, lactoferrin and other protective factors [3].

The most confirmed is the autoimmune theory of LP, in which importance is given to cytotoxic reactions occurring in the basal layer of the epidermis. In this zone, there is an accumulation of Langerhans cells, which are antigen-presenting cells for T-lymphocytes. Together with keratinocytes, as well as Langerhans cells, upon contact with antigens, they intensively produce interleukin-1, which stimulates the production of interleukin-2 by T-lymphocytes and starts a kind of "interleukin cascade": the production of interleukin 4, -5, -6 and TNF is activated [10].

In the lesions, a peculiar infiltrate of T-helpers is revealed, which are capable of destroying keratinocytes, and the latter themselves are able to produce pro-inflammatory cytokines. Genetic predisposition, as well as stressful conditions and psychoemotional stress, drugs, a number of different chemical and physical factors can increase the immune imbalance in LP [6].

The inflammatory process in LP is a finely regulated balance of pro- and anti-inflammatory cytokines that neutralize negative irritants. The secretion of these cytokines is a short process that is triggered by certain gene-determined receptors [1]. There is no correlation between the content of cytokines in the oral fluid and the level in the blood, which once again demonstrates the autonomy of the mode of local immunity of the oral cavity [1].

Proinflammatory cytokines cause mobilization of the cytokine response (interleukins 1,2,6,8, TNF α , interferon γ), anti-inflammatory cytokines prevent the development of inflammation (interleukins 4,10). The ratio between pro-inflammatory and anti-inflammatory cytokines is an important link in the regulation of the development of the inflammation process; both the course of the disease and its outcome depend on the balance of the ratio. Cytokines control the production of clotting factors in the vascular endothelium, such as the production of chondrolytic enzymes, in the formation of scar tissue. IL-1 interleukin is a lymphocyte-activating factor, also an endogenous mediator of leukocytes, it can exist in two isoforms: IL-1 α and IL-1 β [10].

The AFD method - autofluorescent diagnosis of precancerous conditions and early oncoscreening of the oral mucosa is carried out under illumination by the AFS-400 LED device, while the healthy mucous membrane of the cheek area, soft, hard palate has a green glow. The elements of the LP lesion are papules on the mucosa, luminescing with a white-yellow glow with its inherent red-brown rim of inflammation along the perimeter [6].

Serazetdinova A.R., 2020 [1] observed a 25-year-old patient who first went to the doctor with complaints of pain and burning in the mucous membrane of both cheeks; at the time of her visit, she was in a depressed state. Together with a dermatologist and a neuropathologist, after complex clinical and laboratory studies, the diagnosis was made: L 43 Lichen red flat, local and general treatment was prescribed. Taking into account that the patient had a neurological history, a plan of therapeutic measures was drawn up aimed at increasing the motivation to carry out a set of health-improving measures to reduce the level of excitability [11].

Thus, for the diagnosis of LP, clinical, dental, laboratory (microbiological, immunological, biochemical), functional research methods should be carried out. In this regard, it is necessary that specialized doctors take part in the process of diagnosis and treatment:



general practitioners, gastroenterologists, neuropathologists, immunologists, cardiologists, and others, depending on the concomitant somatic pathology, which occurs in almost almost 100% of cases. Despite the large number of different methods of LP therapy, the problem is still relevant. EIAF LP ORM can transform into facultative precancerous diseases in almost 7% of patients with lesions of the red border of the lips, buccal mucosa and tongue [6]. Long-term erosions and ulcers, compaction of lesions, increased keratinization, as well as the appearance of vegetations on the elements of the lesion are signs of malignancy [9].

One of the frequent diseases in dentistry is erosive and ulcerative lesions of the LP of the oral cavity, which is localized on the mucous membrane of the oral cavity and the red border of the lips. However, despite the various methods and means available for the treatment of lichen planus, this problem is still an urgent task, which leads to an increase in the number of patients with a severe course of the disease, and a transition to facultative precancerous diseases is possible [5]. Signs of malignancy are compaction at the base of long-term erosions and ulcers, intensified processes of keratinization, vegetation on the elements of the lesion [5]. The relevance of this problem in the treatment of lichen planus is characterized by the fact that this disease has a high prevalence, is an optional precancer with a low incidence of malignancy [5]. In this regard, the prevention of malignancy of the ENP LP ORM, of course, requires the onco-alertness of the dentist and timely therapy [10]. Frequent exacerbations and the presence of inflammation and infiltrate in the lesion are factors that can cause potential malignancy of ENP LP [5]. Changes in the oral mucosa are not always local manifestations of the disease; in most cases, they can be a local manifestation of somatic pathology [3]. Treatment options for LP are numerous and include topical and systemic agents. Topical corticosteroids remain the mainstay of therapy. A number of researchers have used corticosteroid therapy in the treatment of LP OOM. However, their long-term use may cause some side effects, such as the development of candida, thinning of the oral mucosa, and discomfort with the use of corticosteroids. So, as corticosteroid therapy used triamcinolone nano-gel for topical treatment of LP [10]. The microbiocenosis and quantitative composition of the microflora of the oral mucosa in LP patients entirely depends on the severity of the disease, often leading to dysbiotic changes. The predominance of colonies of the genus *Candida* was observed in 57.2% of the examined patients, especially pronounced in severe lichen planus [13]. In all patients, in 100% of cases, they were examined, they had sensitivity to bacteriophages, in this case, the use of antibiotics for treatment should be excluded. In addition, some patients may not respond effectively to topical corticosteroids.

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