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# CHANGES IN THE ORAL MUCOSA IN CARDIOVASCULAR DISEASES

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**Annotation:** Currently, diseases of the oral mucosa are considered from the standpoint of the whole organism, since no one has any doubts that the majority of pathological processes on the oral mucosa and the red border of the lips are connected with changes in organs and the body as a whole. Thus, changes in the oral mucosa are the first manifestations of clinical signs of the disease even before the onset of objective symptoms. It is they who force patients to turn first of all to the dentist, who must correctly diagnose the disease. For example, pathological changes in the oral mucosa in cardiovascular diseases are found in 45-70% of patients, and in damage to the gastrointestinal tract - in almost every patient.

**Key words:** lesions of the oral mucosa, systemic diseases, percentage, changes.

Changes in the oral mucosa in cardiovascular diseases Changes in the oral mucosa in violation of the cardiovascular system are determined by the degree of circulatory disorders and damage to the vascular wall. Compensated forms of cardiovascular insufficiency, as a rule, are not accompanied by any significant changes in the oral cavity. Swelling and cyanosis of the oral mucosa, cyanosis of the lips are usually observed in decompensated forms of cardiovascular insufficiency: hypertension, rheumatic heart disease or other diseases. There are imprints of teeth on the lateral surfaces of the tongue, cheeks. This condition is often combined with the cyanosis of the red border of the lips. Puffiness of the tongue can be expressed to a large extent, as a result of which it increases in size; speech becomes difficult. With myocardial infarction, swelling of the tongue can be combined with a change in its color, the appearance of cracks, erosions and ulcers. The severity of these changes is determined by the severity of the course of the underlying disease. In large-focal infarction, lesions of the oral mucosa are more pronounced. As the patient's condition improves after general treatment, the situation in the oral cavity improves - swelling of the tongue decreases, epithelialization of erosions and ulcers occurs. Puffiness and ulceration of the oral mucosa often appear in areas adjacent to dentures (marginal edge of the gum adjacent to metal crowns; mucous membrane under the intermediate part of the bridge; under the prosthetic bed of removable plates, etc.). Despite significant changes in the mucous membrane, most patients do not experience subjective sensations, however, the doctor, upon detection of swelling, must determine the cause of its occurrence. It is necessary to conduct a differential diagnosis with similar changes in the mucous membrane in gastrointestinal pathology, infectious and other diseases. Vesicovascular syndrome in the oral cavity is characterized by the appearance of dense blisters of various sizes with transparent or hemorrhagic contents. The authors explain the mechanism of the appearance of blisters in patients with cardiovascular pathology by the rupture of small vessels of the oral mucosa as a result of their increased permeability and fragility of the vascular wall. Along with this, a weakening of the connection between the epithelium and the connective tissue layer of the oral mucosa was revealed, which is obviously due to the destruction of the basement membrane. Vesicovascular syndrome often occurs in women aged 40-75 years.

The appearance of bubbles, as a rule, is associated with an increase in blood pressure, which patients are often unaware of. Favorite localization - on the mucous membrane of the soft palate, the lateral surfaces of the tongue, cheeks. Bubbles can be unchanged from several hours to several days. Sometimes they disappear without opening, but more often they open with the formation of erosion, which epithelizes within 3-7 days, depending on the size. Ulcerative-

necrotic lesions of the oral mucosa Ulcerative-necrotic lesions of the oral mucosa with the formation of trophic ulcers develop in some cases in patients with circulatory disorders II-III degree. Against the background of a deterioration in the general condition of patients (weakness, shortness of breath, swelling of the extremities), soreness in the oral cavity appears, food intake is difficult. One, rarely several ulcers appear on the oral mucosa. The development of trophic ulcers, as a rule, is promoted by trauma with sharp edges of decayed teeth, poor-quality prostheses, or other traumatic factors. Most often, ulcers form on the lateral surfaces of the tongue, buccal mucosa, floor of the mouth, palate, etc. The edges of the ulcers are uneven, the bottom is covered with a grayish-white necrotic coating. If necrotic tissues are not rejected for a long time, they acquire a dark color. A characteristic feature of a trophic ulcer is the absence of a pronounced inflammatory reaction in the surrounding tissue. The necrotic process can spread to neighboring areas of the face, nasopharynx. There is an unpleasant smell from the mouth, saliva becomes viscous. Cases of ulcerative-necrotic lesions of the oral mucosa on the background of circulatory disorders with necrosis and sequestration of the jaw bone tissue, and the formation of defects in the cheek tissues are described. Necrotic tissue breakdown can lead to severe bleeding. Long-term existence of trophic ulcers can lead to their malignancy.

Diagnosis of changes in the oral mucosa in cardiovascular diseases: Vesicovascular syndrome is differentiated from: pemphigus; angiomas; multiform exudative erythema. Ulcerative-necrotic lesions of the oral mucosa Cytological examination of a scraping from the surface of a trophic ulcer reveals a small number of epithelial cells with signs of degeneration, which is expressed in a decrease in cell size, the absence of clear contours in some of the cells. Neutrophils are diagnosed in varying degrees of decay. Histopathologically, in the area of a trophic ulcer, a chronic inflammatory process with extensive necrosis and proliferation of interstitial tissue, sclerotic changes in blood vessels and damage to nerve fibers are determined. Differential diagnosis. A trophic ulcer is differentiated from: traumatic ulcer; ulceration of a malignant neoplasm; tuberculous ulcer; ulcerative necrotic stomatitis Vincent; ulcerative-necrotic lesions of the oral mucosa in blood diseases.

Changes in the mucosa, despite the huge number of patients with CCC pathology, the issue of changes in the oral cavity in various pathologies is not given due importance. More deeply studied are the changes that occur in the soft tissues of the oral cavity and the periodontal tissues - the periodontium. The same manifestations can be a sign of completely different diseases, so you do not need to wait for an accurate diagnosis from the dentist. The dentist can only refer the patient to the appropriate specialist for a detailed examination. If the patient has pale mucous and cyanotic lips, periodically there is a burning sensation and less often dry mouth during meals, one can suspect cardiovascular insufficiency due to various heart defects and hypertension. In the event of trophic ulcers and the presence of recurrent necrotic, ulcerative changes in the oral cavity, it is necessary to suspect, first of all, diseases of the digestive system, but if the patient complains of shortness of breath, swelling of the limbs, general weakness, then this already indicates a violation of blood circulation of various severity. In the oral cavity, on examination, single or multiple ulcers with uneven edges are noticeable. Usually, the location does not have a strict tendency - ulcers can be localized on the lateral surfaces of the tongue, cheeks, and palate. The bottom of the ulcer is lined with a gray coating - these are necrotic changes in the mucous membrane, but there are no signs of inflammation of the surrounding tissues.

Patients with cardiovascular pathology, who have lesions of the oral mucosa and gums in the form of gingivitis and stomatitis, require adequate oral hygiene using toothpastes with fluoride and antiseptic additives. The presence of dental foci of infection leads to an increased risk of septic

endocarditis, thereby further actualizing the problem of primary prevention. Professional oral hygiene should be carried out sparingly, and against the background of preventive antibiotic therapy prescribed by the attending physician. Taking anticoagulants, especially after cardiac surgery, increases the risk of bleeding when brushing teeth, which necessitates the use of gentle methods and means of mechanical cleaning of the teeth, the use of oral preparations with fluoride, antiseptic and hemostatic properties. A dentist may suspect this disease in a patient and refer him for examination and treatment to a specialized healthcare facility. This is especially important at the initial stages of the development of the disease, when patients do not present any specific complaints. Meanwhile, timely detection and treatment of this pathology can help prolong the active longevity of the patient.

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