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# MORPHOLOGICAL AND FUNCTIONAL CHANGES OF THE ORAL MUCOSA IN ULCERATIVE STOMATITIS

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**Abstract**

Ulcerative stomatitis is a common inflammatory disease of the oral mucosa characterized by erosive and ulcerative lesions. This study aims to investigate the morphological and functional changes of the oral mucosa in patients with ulcerative stomatitis. Clinical, cytological, histological, and functional methods were used to evaluate tissue alterations and oral fluid parameters. The results demonstrated significant epithelial damage, inflammatory infiltration, and microcirculatory disturbances, accompanied by impaired salivary function. These findings highlight the importance of комплексного подхода to diagnosis and treatment.

## Introduction

Ulcerative stomatitis represents a significant issue in dental practice due to its высокая распространенность and tendency to recur. The disease is associated with pain, difficulty in eating, and decreased quality of life.

The pathogenesis involves microbial factors, immune нарушения, and local tissue damage. However, insufficient attention has been paid to the correlation between structural (morphological) and functional changes in the oral mucosa.

A detailed study of these changes is necessary for improving diagnostic accuracy and developing effective therapeutic strategies.

## Relevance (Background)

The актуальность of this research is determined by: increasing incidence of ulcerative lesions of the oral mucosa frequent chronic and recurrent forms growing role of systemic diseases affecting oral health

Understanding morphological and functional alterations will allow early diagnosis and targeted therapy.

Materials and Methods

The study included 50 patients aged 18–65 years diagnosed with ulcerative stomatitis. A control group consisted of 20 healthy individuals.

Clinical examination:Assessment of lesion localization, depth, and size.Pain evaluation using Visual Analog Scale (VAS).Oral hygiene index determination

Morphological studies:Cytological examination of smears from lesion surfaces.Histological analysis of biopsy specimens.Staining with hematoxylin and eosin

Evaluated parameters: epithelial destruction, degree of inflammatory infiltration vascular changes (hyperemia, stasis)

**Functional assessment:**

Sialometry (unstimulated salivary flow rate) Saliva pH measurement. Microcirculation analysis (capillaroscopy).Evaluation of mucosal barrier resistance

Statistical analysis:

Data were analyzed using standard statistical methods. Differences were considered significant at $p < 0.05$.

**Results**

Morphological findings: Significant epithelial desquamation and ulceration. Presence of necrotic areas in severe cases.Dense inflammatory infiltration (lymphocytes, neutrophils).Vascular dilation, hyperemia, and microthrombosis.Cytological analysis revealed:Increased number of degenerative epithelial cells

Presence of inflammatory cells and microbial flora

Functional changes:Decreased salivary flow rate (hyposalivation). Shift of oral fluid pH toward acidic values. Impaired microcirculation (reduced capillary perfusion, stasis)

Reduced protective (barrier) function of mucosa

Clinical correlation: Severity of symptoms directly correlated with the degree of morphological damage and functional impairment.

**Discussion**

The results confirm that ulcerative stomatitis is associated with both structural and functional disturbances of the oral mucosa.

Epithelial damage leads to loss of barrier function, facilitating microbial invasion and prolonging inflammation. Microcirculatory disorders contribute to tissue hypoxia and delayed healing.

Hyposalivation and pH imbalance further aggravate the pathological process by reducing antimicrobial defense.

These findings are consistent with modern concepts of inflammatory diseases, where tissue damage and functional

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