IMMUNOPATHOGENETIC BASIS AND CLINICAL MANIFESTATIONS OF ORAL CANDIDIASIS

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Annotation: This thesis explores the immunopathogenetic mechanisms underlying the development of oral candidiasis and analyzes its major clinical presentations. A weakened mucosal immune response, disruptions in microbial balance, and systemic predisposing factors contribute significantly to the onset and progression of the disease. Understanding these mechanisms is essential for accurate diagnosis, timely intervention, and effective therapeutic strategies.

Keywords: Oral candidiasis; immunopathogenesis; mucosal immunity; fungal infections; clinical manifestations.

Oral candidiasis is a common opportunistic fungal infection that arises when the delicate balance between Candida species and host defenses is disrupted. The immunopathogenetic basis of the condition is rooted in impaired mucosal immunity, reduced salivary antimicrobial activity, and alterations in the oral microbiome. Systemic factors such as immunosuppressive diseases, hematologic disorders, prolonged antibiotic use, and nutritional deficiencies further weaken host resistance and facilitate fungal overgrowth. The pathogenesis involves the adherence of Candida to epithelial surfaces, formation of biofilms, and the transition from yeast to hyphal forms, which increases tissue invasiveness and inflammatory response. Clinically, oral candidiasis presents in several distinct forms, including pseudomembranous candidiasis characterized by removable white plaques, erythematous candidiasis marked by painful reddened mucosa, and chronic hyperplastic candidiasis with persistent non-removable lesions. Symptoms such as burning sensation, taste disturbances, dysphagia, and mucosal discomfort are frequently reported. The variability of clinical manifestations reflects the underlying immune status of the patient and the degree of fungal invasion. A thorough understanding of both the immunopathogenetic mechanisms and the clinical spectrum of oral candidiasis is crucial for early detection, differential diagnosis, and the development of targeted therapeutic approaches that aim to restore mucosal immunity, control fungal proliferation, and improve patient outcomes.

References

1. Tombak, A., Karakus, S., & Gencay, C. (2022). Management of oral candidiasis in immunocompromised patients: A review. Journal of Infection and Public Health, 15(5), 553–560. https://doi.org/10.1016/j.jiph.2021.12.010
2. Valijonovna, O. M. (2023). Aseptic and antiseptic in therapeutic dentistry. Best Journal of Innovation in Science, Research and Development, 2(10), 517-521.
3. Valijonovna, O. M., & Bahodirovna, N. M. (2023). TREATMENT OF HYPERESTHESIA AFTER TEETH WHITENING. Научный Фокус, 1(1), 459-465.

4. Valijonovna, O. M., & Bahodirovna, N. M. (2023). PREVENTION AND TREATMENT OF COMPLICATIONS AFTER WHITENING. PEDAGOGICAL SCIENCES AND TEACHING METHODS, 2(23), 216-218.
5. Valijonovna, O. M., & Bahodirovna, N. M. (2022). PREVENTION AND TREATMENT OF COMPLICATIONS AFTER WHITENING. Scientific Impulse, 1(4), 1201-1207.
6. Valijonovna, O. M. (2023). ROLE OF ICON TREATMENT IN MODERN DENTISTRY. Best Journal of Innovation in Science, Research and Development, 117-120.