

**FEATURES OF THE TREATMENT OF FACULTATIVE PRECANCEROUS
DISEASES OF THE ORAL MUCOSA**

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Abstract: This article explores current approaches to the diagnosis and treatment of facultative precancerous diseases of the oral mucosa, including leukoplakia, oral lichen planus, and chronic hyperplastic candidiasis. Particular attention is paid to the pathogenetic mechanisms of these conditions and the role of comprehensive therapy involving elimination of etiological factors, local, and systemic treatment. The analysis of domestic and international studies highlights the need for an individualized approach based on the risk of malignant transformation. The work is aimed at increasing the effectiveness of prevention and treatment to reduce the likelihood of malignancy.

Keywords: facultative precancerous diseases, oral mucosa, leukoplakia, oral lichen planus, chronic candidiasis, treatment, prevention, malignant transformation.

**ОСОБЕННОСТИ ЛЕЧЕНИЯ ФАКУЛЬТАТИВНЫХ ПРЕДРАКОВЫХ
ЗАБОЛЕВАНИЙ СЛИЗИСТОЙ ОБОЛОЧКИ ПОЛОСТИ РТА**

Аннотация: В статье рассмотрены современные подходы к диагностике и лечению факультативных предраковых заболеваний слизистой оболочки полости рта, включая лейкоплакию, красный плоский лишай и хронический гиперпластический кандидоз. Особое внимание уделено патогенетическим механизмам развития данных состояний, а также значению комплексной терапии, включающей устранение этиологических факторов, местное и системное лечение. Приведён анализ данных отечественных и зарубежных исследований, подчеркивающий необходимость индивидуального подхода к каждому пациенту с учетом степени риска малигнизации. Работа направлена на повышение эффективности профилактики и терапии предраковых заболеваний с целью предупреждения их перехода в злокачественные новообразования.

Ключевые слова: факультативные предраковые заболевания, слизистая оболочка полости рта, лейкоплакия, красный плоский лишай, хронический кандидоз, лечение, профилактика, малигнизация.

**OG'IZ BO'SHLIG'I SHILLIQ QAVATINING FAKULTATIV XAVFLI O'SMA
OLDI KASALLIKLARINI DAVOLASH XUSUSIYATLARI**

Annotatsiya: Ushbu maqolada og'iz bo'shlig'i shilliq qavatining fakultativ xavfli o'sma oldi kasalliklari — leykoplakiya, qizil yassi temiratki va surunkali gipertrofik kandidozni tashxislash va davolashning zamonaviy yondashuvlari ko'rib chiqilgan. Kasalliklarning patogenetik mexanizmlari va kompleks terapiya — etiologik omillarni yo'qotish, mahalliy va tizimli davolashga e'tibor qaratilgan. Mahalliy va xorijiy tadqiqotlar asosida har bir

bemorga individual yondashuv zarurligi ta'kidlangan. Maqola xavfli o'sma rivojlanishining oldini olishga yo'naltirilgan profilaktika va davolash usullarining samaradorligini oshirishga qaratilgan.

Kalit so'zlar: fakultativ xavfli o'sma oldi kasalliklar, og'iz shilliq qavati, leykoplakiya, surunkali kandidoz, davolash, profilaktika, malignizatsiya.

Introduction

Malignant neoplasms of the oral cavity represent a significant medical and social issue due to their high incidence, late diagnosis, and unfavorable outcomes. Oral cancer most commonly develops against the background of long-standing facultative precancerous conditions of the oral mucosa (OM), such as leukoplakia, oral lichen planus, chronic trauma, and inflammation. According to various sources, malignant transformation of facultative precancerous lesions occurs in 4–20% of cases, with risk factors including tobacco use, alcohol consumption, viral infections, and mechanical trauma. The aim of this paper is to present current insights into the pathogenesis, clinical and morphological characteristics, and treatment approaches for facultative precancerous conditions of the oral mucosa.

Objective

To determine optimal treatment strategies for facultative precancerous conditions of the oral mucosa based on the analysis of current clinical and scientific data, with consideration of their malignant transformation risk.

Research Objectives. To analyze domestic and international literature regarding the etiology, pathogenesis, and classification of facultative oral precancerous conditions, examine the clinical features of the most common forms of facultative precancerous lesions, such as leukoplakia, oral lichen planus, and chronic hyperplastic candidiasis, evaluate the efficacy of current treatment methods, including pharmacological, topical, and combined therapies, determine the role of prevention, elimination of triggering factors, and individualized approaches in preventing malignant transformation, develop recommendations for improving therapeutic strategies for these conditions.

Morphological and Clinical Characteristics of Oral Precancerous Conditions

The oral mucosa performs protective, sensory, and immune functions and consists of keratinized and non-keratinized epithelium, a basement membrane, and connective tissue. Prolonged exposure to pathogenic factors (mechanical, chemical, or viral) leads to morphological changes such as hyperkeratosis, acanthosis, basal cell hyperplasia, and dysplasia, all of which are indicators of increased malignancy risk. Special attention is given to molecular markers (miRNA-21, miRNA-184) and salivary biomarkers (FGF2, endothelin-1), which reflect the extent of pathological changes and aid in early diagnosis. Facultative precancerous conditions of the oral mucosa include leukoplakia, oral lichen planus (especially the erosive form), chronic traumatic lesions, and actinic cheilitis. Leukoplakia is the most common form, characterized by areas of hyperkeratosis and dysplasia of varying severity. Morphologically, these lesions exhibit cell polarity disruption, atypia, and inflammatory infiltration. Clinically, they may present as plaques, erosions, or ulcers.

Current strategies for managing facultative oral precancerous conditions are based on: personalized approaches considering disease form, dysplasia severity, patient age, and comorbidities; active integration of conservative and surgical methods; application of advanced technologies, including lasers, photodynamic therapy, and molecular modulation systems and mandatory histological monitoring. Conservative therapy is primarily used in the absence of severe dysplasia and includes: Keratolytics and retinoids (e.g., isotretinoin, acitretin) to normalize epithelial differentiation; Topical corticosteroids (e.g., prednisolone, triamcinolone) for oral lichen planus; Antiseptics and antifungals for secondary infections; Immunomodulators (e.g., thymus-derived agents, interferons); NSAIDs and antioxidants (vitamins A, E, C, coenzyme Q10).

Recent studies highlight the potential role of vitamin D as a modulator of inflammation and epithelial growth in the oral mucosa. Vitamin D has been shown to reduce NF- κ B activity and related pro-inflammatory cascades. Surgical treatment is indicated in cases of moderate to severe dysplasia or absence of lesion regression and includes: Scalpel excision with histological margin control, often used for verrucous leukoplakia; Laser therapy using CO₂, erbium, or diode lasers for bloodless removal and minimally invasive ablation of affected tissue; Cryodestruction for leukoplakia and chronic ulcerative-necrotic lesions, which promotes tissue necrosis, reduces antigen load, and stimulates regeneration via cryoimmunostimulation.

Photodynamic therapy (PDT) is a selective method that involves administering a photosensitizer followed by irradiation with a specific wavelength. It is effective in treating leukoplakia and oral lichen planus, particularly in low to moderate dysplasia (grades I–II), and preserves tissue morphology and function. A novel direction in therapy involves targeting molecular pathways of malignant transformation. Research has shown that compounds like fraxin inhibit the FGF2/NF- κ B pathway via OCT3 modulation, reducing inflammation and cancer risk in oral lichen planus. Furthermore: miRNA-21 and miRNA-184, detectable in saliva, may serve as early markers of malignant transformation; Salivary metabolites and proteins (e.g., endothelin-1, bFGF) can be used to monitor treatment efficacy; Targeted modulation of specific molecular cascades holds promise for future therapies.

Regardless of treatment method, patients require: Regular follow-ups every 3–6 months; Photographic documentation of lesions; Biopsy-based dysplasia assessment; Malignancy risk evaluation using systems like WHO 2021 or the Binary Grading System. Emerging trends include: The integration of artificial intelligence and mobile diagnostic systems; The use of biotechnology, such as local delivery of antitumor agents; Combining laser and photodynamic therapies with topical retinoids and cytostatics. Malignant transformation risk factors include tobacco use, alcohol abuse, chronic trauma to the mucosa, and infection with high-risk human papillomavirus (HPV). Combined exposure to these factors significantly increases the likelihood of cancer development—up to 4–5 times higher in patients with both smoking and HPV infection.

Conclusion

Facultative precancerous conditions of the oral mucosa pose a significant oncological risk. Contemporary diagnostic and therapeutic methods enable effective management and prevention of malignant transformation. A comprehensive approach that includes risk factor

elimination, early diagnosis, molecular monitoring, and personalized therapy is essential. Interdisciplinary collaboration among dentists, oncologists, dermatologists, and pathologists is crucial for optimal outcomes.

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