INTERNATIONAL SCIENTIFIC AND PRACTICAL CONFERENCE

STRATEGIC GUIDELINES FOR THE DEVELOPMENT OF SCIENCE, EDUCATION, TECHNOLOGIES, AND KEY SPHERES OF PUBLIC LIFE

Book of abstracts

November 10, 2025

Boston,
USA

SECTION 9

MEDICAL AND PHARMACEUTICAL SCIENCES

UDC 616.516:616.07

Manukhina O. M.
PhD, Associate Professor,
Associate Professor, Department of Postgraduate Dentistry,
Zaporizhzhya State Medical and Pharmaceutical University

ORAL LICHEN PLANUS IN DENTAL PRACTICE

Lichen planus (LP) is a multidisciplinary problem that attracts the attention of immunologists, endocrinologists, neurologists, gastroenterologists, general practitioners, and dentists. The disease often begins with lesions of the oral mucosa, which requires the dentist to apply deep and systematic clinical reasoning [1, p. 12].

The etiology of this chronic inflammatory disease remains unknown. Its pathogenesis is multifactorial and reflects a complex interplay of genetic, immunological, environmental, microbial, hormonal, and drug-related factors [2, p. 1007]. Current evidence suggests that OLP is primarily driven by a T-cell–mediated (Th1) response against basal keratinocytes, although other inflammatory cells also contribute to the process. Thus, in genetically predisposed individuals, environmental triggers–such as medications, infections, vaccines, contact allergens, stress, or other unidentified agents–can activate the immune system, initiating an inflammatory cascade that leads to OLP [3, p. 4]. Oral lichen planus (OLP) is a chronic, recurrent, and often treatment-resistant condition. It has been linked to a range of systemic disorders, including thyroid dysfunction, hypertension, diabetes mellitus, anemia, metabolic syndrome, and dyslipidemia [4, p. 287]. Psychological factors can exacerbate the disease and, in turn, cause anxiety and depression. The potential for malignant transformation depends on age, sex, and lifestyle factors [5, p. 528].

OLP presents with a broad spectrum of clinical manifestations, and its diagnosis is often established by integrating clinical assessment, histopathological examination, and ancillary investigations. Symptoms range from local discomfort and burning to significant impairment in quality

of life [6, p. 736]. The main therapeutic goals are pain control, prolongation of remission, and reduction of malignant transformation risk. There are no universally accepted treatment guidelines; management must be individualized according to the clinical picture and patient characteristics [2, p. 1007; 5, p. 280]. Although corticosteroids remain the mainstay of treatment, other modalities – such as laser therapy and photodynamic therapy – have been proposed. Several biomolecules and natural compounds (thalidomide, hyaluronic acid, piperine, aloe vera gel, etc.) have been tried as alternatives to immunosuppressants and immunomodulators, however no conclusive evidence exists to confirm their effectiveness. Topical therapy is generally preferred due to fewer side effects, though systemic agents are required in widespread or resistant cases. OLP demonstrates greater resistance to treatment [6, p. 7363].

During 2025, 29 patients aged 42–75 years (28 women, 1 man) with oral lichen planus were observed and treated at the clinic. In 7 cases, the OLP diagnosis was established for the first time. Patients were referred primarily by dentists (4 cases), ENT specialists (2), and one by a family physician. All patients resided in frontline territories; 4 were internally displaced persons, which led to a persistent influence of unmodifiable social and environmental factors on their lives. 27 patients associated OLP onset or exacerbation with psychological stress; 2 associated it with disruption of a particular lifestyle. The diagnosis was made clinically in all cases. 14 patients had the typical reticular form of OLP, 6 the erosive-ulcerative type, 7 the exudative-hyperemic form, 2 the hyperkeratotic type, and 5 presented concomitant desquamative gingivitis. One patient had oral lesions accompanied by skin lesions.

The buccal mucosa was the most frequently affected site (26 patients), followed by the tongue (19), lips (9), floor of the mouth (5), vermilion border (3), palate (2), and alveolar processes (1). Subjective symptoms were reported by 26 patients. Most frequently reported were oral discomfort, a rough sensation, burning, and pain. Other symptoms included xerostomia and taste disturbances. In 100% of cases, patients also had periodontal disease of varying severity. In cases of chronic periodontitis exacerbation (7 patients), microbial contamination of OLP lesions was high. 5 patients with mixed-metal dental prostheses showed galvanic currents of 10–25 μA, prompting replacement. In all patients in the observation group, OLP developed against the background of comorbidities, most frequently cardiovascular disease, as well as gastrointestinal and thyroid disorders. 4

patients were diagnosed with Grinspan's syndrome. In these cases, the course of OLP depended on the course of diabetes and hypertension, and the condition improved with normalization of blood glucose levels and blood pressure. In 2 patients, diabetes mellitus was first detected during the comprehensive OLP workup.

Management began with elimination of provoking and traumatic factors. Patients received oral hygiene instruction, personalized hygiene products, professional cleaning, and meticulous dental sanitation, including eradication of odontogenic infection and restoration of oral microbiota balance. Advice was given regarding diet and lifestyle with the aim of eliminating harmful habits. Involvement of other specialists to correct the patients' overall health status was mandatory. Only local treatment was provided to eight patients. In five cases, this included topical application of corticosteroids (mometasone) combined with helium-neon laser therapy, hyaluronic acid gel (Gengigel), Traumeel S gel, and herbal agents with protective, antiseptic, and keratoplastic effects. In three cases, corticosteroids were not used. In 21 cases, local therapy was carried out together with systemic administration of immunocorrectors (thymalin in 15 cases), antioxidants (Aevit in 20 cases), and antihomotoxic drugs (Traumeel S, Mucosa compositum in 6 cases). Psychological assessment revealed high or very high anxiety levels. Given the persistent stress exposure in the frontline zone, patients received psychological support, training in breathing techniques, cognitive-behavioral therapy sessions, and sedative medications as indicated.

This therapeutic approach led to positive outcomes in all 29 patients – manifested by inflammation resolution, epithelialization of erosions, and reduction of lesion area and keratosis intensity. Effective treatment of OLP improved not only the condition of the oral cavity but also the patients' overall quality of life, and regular, long-term follow-up contributed to the prevention of malignant transformation.

Thus, the clinical variability and complex etiopathogenesis of OLP necessitate particular attention from dental practitioners and the application of comprehensive, personalized treatment strategies that consider both individual and social factors.

References

1. Червоний плоский лишай як мультидисциплінарна проблема слизової оболонки порожнини рота. Моніторинг сучасних поглядів на проблематику / S. S. Bozhyk та ін. *Oral and General Health*. 2023. Т. 4,

№ 1. С. 10–15. URL: https://doi.org/10.22141/ogh.4.1.2023.145 (дата звернення: 09.11.2025).

2. Elenbaas, A.; Enciso, R.; Al-Eryani, K. Oral lichen planus: A review of clinical features, etiologies, and treatments. *Dent. Rev.* 2022. No. 2. 100007.

3. Albu, C.C.; Bencze, M.A.; Dragomirescu, A.O.; Vlădan, C.; Albu, Ş.D.; Russu, E.A.; Ionescu, E. Oral Lichen Planus Genetics Update. *Eur. J. Dent. Oral Health.* 2022. No. 3. P. 1–5.

4. Binnie, R., Dobson, M., Chrystal, A. *et al.* Oral lichen planus and lichenoid lesions - challenges and pitfalls for the general dental practitioner. *Br Dent J* 236, 285–292 (2024). https://doi.org/10.1038/s41415-024-7063-y

5. Nukaly, H.Y.; Halawani, I.R.; Alghamdi, S.M.S.; Alruwaili, A.G.; Binhezaim, A.; Algahamdi, R.A.A.; Alzahrani, R.A.J.; Alharamlah, F.S.S.; Aldumkh, S.H.S.; Alasqah, H.M.A.; et al. Oral Lichen Planus: A Narrative Review Navigating Etiologies, Clinical Manifestations, Diagnostics, and Therapeutic Approaches. *J. Clin. Med.* 2024, *13*, 5280. https://doi.org/10.3390/jcm13175280

6. Ślebioda, Z.; Drożdżyńska, J.; Karpińska, A.; Krzyżaniak, A.; Kasperczak, M.; Tomoń, N.; Wiśniewska, P.; Wyganowska, M.L. Oral Lichen Planus: Clinical Presentation, Demographic Characteristics, and Risk Factors in a Retrospective Study of 186 Polish Patients. *J. Clin. Med.* 2024, *13*, 7363. https://doi.org/10.3390/jcm13237363