European Journal of Therapeutics
pISSN: 2564-7784
eISSN: 2564-7040

Eur J Ther. 2024
https://doi.org/10.58600/eurjther2111

Letter to Editor

Corticosteroids and Immunosuppressants on Oral Lichen Planus' Treatment

Mehmet Akyüz [1], Sultan Uzun [2,*], Ali Altindağ [2], Güldane Mağat [2], Kaan Orhan [3]

[1] Denizli Oral and Dental Health Center, Denizli, Türkiye
[2] Department of Dentomaxillofacial Radiology, Necmettin Erbakan University, Faculty of Dentistry, Konya, Türkiye
[3] Department of Dentomaxillofacial Radiology, Ankara University, Faculty of Dentistry, Ankara, Türkiye

Received: 2024-03-25 **Accepted**: 2024-05-10 **Published Online**: 2024-05-14

Corresponding Author
Sultan Uzun, Res. Assist.
Address: Department of Dentomaxillofacial Radiology, Necmettin Erbakan University, Faculty of Dentistry, Konya, Türkiye
E-mail(s) : sultan_uzun@yahoo.com; dtsultanuzun@gmail.com

Dear Editor,

Lichen planus (LP), a chronic inflammatory condition primarily targeting skin and mucous membranes, was first outlined by Wilson in 1869 and histologically by Dubreuilh in 1906 [1]. It predominantly affects women in their 4th and 5th decades [2]. Oral lichen planus (OLP) occurs mainly on the buccal mucosa, gingiva, and tongue, presenting in six types, with erosive ones causing eating discomfort. While 25% of LP cases manifest solely orally, some lesions can appear in areas like the anogenital region and esophagus [2].

OLP is postulated to be a T cell-mediated response to antigens, with potential ties to chronic liver diseases and higher prevalence in regions like Japan and Southern Europe [3]. Comorbidities like diabetes, hypertension, and stress may also contribute [4]. Dental materials can mimic OLP, and specific drugs, including NSAIDs and beta-blockers, might induce it in some individuals [5].

Asymptomatic OLP lesions generally need no treatment. For symptomatic forms, treatment targets symptom alleviation and lesion removal, primarily using topical corticosteroids. Resistant lesions may require intralesional or systemic corticosteroids, with alternatives like immunosuppressives, retinoids, antifungals, and metronidazole also being effective [6].

OLP has a premalignant nature with a 0.4-1.74% risk of turning malignant, typically from its atrophic or erosive form [7]. Treatment aims to alleviate pain, heal ulcers, minimize cancer risks, extend symptom-free periods, and uphold oral health. This report presents intralesional corticosteroid therapy for three patients with symptomatic OLP, presenting symptoms like pain and burning.

The diagnosis, treatment and follow-up processes of the patients diagnosed with oral lichen planus in the three patients are described in detail in Table 1.

© 2024, European Journal of Therapeutics, Gaziantep University School of Medicine.

This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.

Table 1. The diagnostic, treatment, and follow-up processes of patients diagnosed with lichen planus

Patients	Anamnesis, and Patient Complaint	Diagnosis	Treatment Plan	Follow-up
1st	• 27-year-old • Male • Non-smoker • Without systemic disease ***Complaints*** - Severe pain in the right buccal mucosa, - Increased salivation, - Inability to eat of patient, - Lesions occurred frequently.	***Examination*** - Intraorally, an erosive lesion covering the right buccal mucosa was detected with a white periphery and erythema in the middle (**Fig. 1a**). ***Diagnose*** - Incisional biopsy was performed. - As a result of the pathological and clinical examinations, OLP without any epithelial dysplasia was diagnosed.	- An intralesional corticosteroid ***(0.5 mL dose of triamcinolone acetonide; 40 mg/mL; Kenacort, Han All Bio-Pharma)*** administration was applied - On the control session after 20 days, observed that the lesion regressed, and the complaints of patient decreased (**Fig. 1b**). - A second dose of corticosteroid was administered to ensure complete recovery.	- The patient was called back for control 1 week later. The patient did not come to the control session because he had completely healed the intraoral lesions, and during the 2-year follow-up period, he did not apply to our clinic with any complaints.
2nd	• 48-year-old • Male, • Non-smoker, • Without systemic disease ***Complaints*** - Pain, - Tenderness in the oral mucosa, - Increased burning sensation while eating spicy food.	***Intraoral examination*** - white-lined erythematous areas in the anterior gingiva and buccal sulcus (**Fig. 2a**). ***Diagnose*** - In the anamnesis, it was determined that a biopsy was performed in the dermatology department and a diagnosis of lichen planus was made.	- Patient used local orticosteroids and applied them to herbal treatment, when diagnosed by dermatologist. However, he stated that he could not get results from the treatments and that his complaints increased in some periods. - Intralesional corticosteroid injection ***(0.5 mL dose of triamcinolone acetonide; 40 mg/mL; Kenacort, Han All Bio-Pharma)*** injection was performed to relieve the patient's complaints (**Fig. 2b**). - The patient was also given a pomade containing ***orafix-clobetasol propionate (0.05%)*** and asked to apply it four times a day. - Periodontal treatment of the patient, whose oral hygiene was not good, was performed. - The fixed prosthesis in the lower anterior was renewed.	- In the control session, it was determined that the patient's complaints decreased, and the lesions regressed after 3 weeks. (**Fig. 3**).
3rd	• 59-year-old, • Female • Non-smoking patient • With asthma, type 2 diabetes, polyneuropathy, irritable bowel syndrome, and cholesterol diseases ***Complaints*** - Severe pain and sensitivity to hot and spicy foods.	***Intraoral examination*** - Hyperkeratotic lines, - Erosive and hyperemic areas were observed in the buccal mucosa and gingiva (**Fig. 4a**). ***Diagnose*** - It was found that the patient had previously applied to dermatology with the same complaints and was diagnosed with lichen planus 3 years ago.	- In the anamnesis, it was detected that the patient was treated with systemic corticosteroids, but the patient did not use her medications regularly, because of the side effects of systemic corticostreoids on her bowels. - Periodontal treatment was planned for the patient with poor oral hygiene. - ***Tacrolin 0.1% pomade (Farma-Tek, Sakarya, Türkiye)*** was prescribed to the patient on alternate days, 4x1 and 2x1 in intermediate doses, and she was followed up. Despite decreasing the complaints after using Tacrolin pomade (0.1 %, Farma-Tek, Sakarya, Türkiye) (**Fig. 4b**), the patient had limited time to stay in Türkiye. - Considering her complaints and limited time, we decided to treat the lesions with intralesional corticosteroids ***(0.5 mL dose of triamcinolone acetonide; 40 mg/mL; Kenacort, Han All Bio-Pharma).*** Intralesional corticosteroid therapy was applied to the patient 2 times with an interval of 2 weeks.	- It was observed that the lesions of the patient regressed, the mucosa returned to normal, and her complaints decreased after 2 weeks (**Fig. 5,6**).

First patient is a 27-year-old non-smoking male exhibited an erosive buccal lesion with associated pain and eating difficulties (Fig. 1a). His history noted recurrent lesions. Biopsy confirmed OLP without epithelial dysplasia. An intralesional triamcinolone acetonide injection was administered due to severe pain. Notable lesion improvement was observed at a 20-day review (Fig. 1b). Despite a secondary corticosteroid administration, the patient self-reported full recovery and had no recurrence over a 2-year period.

Second patient is a 48-year-old non-smoking male presented with oral discomfort and sensitivity to spicy foods. Examination revealed erythematous regions in the anterior gingiva and buccal sulcus suggestive of lichen planus (Fig. 2a), previously confirmed by biopsy. Despite earlier treatments, symptoms persisted. We administered an intralesional triamcinolone acetonide injection (Fig. 2b) and prescribed orafix-clobetasol propionate (0.05%) pomade. Combined with dental interventions, a three-week review showed reduced symptoms and lesion improvement (Fig. 3).

And third patient is a 59-year-old non-smoking female with multiple health conditions presented with severe oral pain and sensitivity. Previously diagnosed with lichen planus, she had sporadic systemic corticosteroid use due to side effects. After limited relief from Tacrolin 0.1% pomade, she underwent two sessions of intralesional corticosteroid treatment with triamcinolone acetonide. This led to significant symptom relief and lesion regression within two weeks.

In conclusion, therapeutic intervention is typically reserved for symptomatic patients for OLP. Advised lifestyle adjustments encompass tobacco reduction, limited alcohol consumption, and the avoidance of irritant foods. Symptomatic patients, presenting with discomforts like pain or burning, require prompt symptom alleviation, attainable through therapeutic avenues such as corticosteroid administration, both local and systemic, or advanced surgical and laser techniques.

Yours sincerely



Figure 1.a. Intraoral view presenting with the complaint of pain in the buccal mucosa, **b.** Buccal mucosa image of the patient who was called for control 20 days after intralesional corticosteroid injection.



Figure 2.a. Intraoral view of the patient who came to our clinic with the complaint of burning in the gums and buccal sulcus. **b.** Intralesional corticosteroid application



Figure 3. Intraoral view of the patient of control session after 3 weeks of injection



Figure 4.a. Hyperkeratotic lines, erosive and hyperemic areas on the buccal mucosa and gingiva in intraoral examination, **b.** Image of the buccal mucosa after the use of Tacrolin 0.1% pomade



Figure 5. Intraoral view of the patient after 2 weeks for follow-up examination

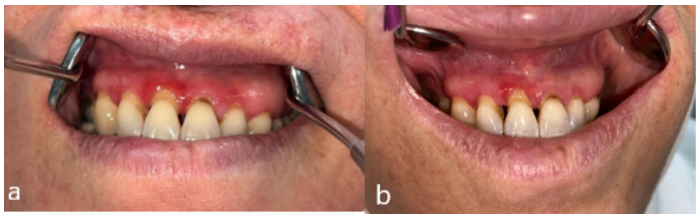


Figure 6. Intraoral view of maxillary anterior region before treatment (a) and after application of intralesional corticostereoids (b).

Acknowledgments: None declared.

Conflict of interest: None declared.

Funding: None declared.

Ethical Approval: Not applicable, but we have patients' consent statements.

Informed Consent: There are patient consent statements and they can be shared with the editor if necessary.

Author Contributions: Conception: MA; SU - Design: MA; SU; AA; GM - Supervision: AA; GM; KO - Fundings: MA; SU; AA; GM -Materials: MA; SU - Data Collection and/or Processing: MA; SU - Analysis and/or Interpretation: MA; SU; AA; GM; KO - Literature: MA; SU; AA; GM - Review: MA; SU; AA; GM - Writing: MA; SU; AA; GM - Critical Review: AA; GM;KO

REFERENCES

[1] Olson MA, Rogers III RS, Bruce AJ (2016) Oral lichen planus. Clin Dermatol. 34(4):495-504. https://doi.org/10.1016/j.clindermatol.2016.02.023

[2] Zakrzewska JM. Re: Mollaoglu N (2001) Oral Lichen Planus: A Review. J Oral Maxillofac Surg. 2000; 38: 370-377. Br J Oral Maxillofac Surg. 39(5):407. https://doi.org/10.1054/bjom.2000.0335

[3] Klanrit P, Thongprasom K, Rojanawatsirivej S, Theamboonlers A, Poovorawan Y (2003) Hepatitis C virus infection in Thai patients with oral lichen planus. Oral Dis. 9(6):292-297. https://doi.org/10.1034/j.1601-0825.2003.00955.x

[4] Ivanovski K, Nakova M, Warburton G, Pesevska S, Filipovska A, Nares S, Nunn ME, Angelova D, Angelov N (2005) Psychological profile in oral lichen planus. J Clin Periodontol. 32(10):1034-1040. https://doi.org/10.1111/j.1600-051X.2005.00829.x

[5] Zhao Z, Savage N, Sugerman P, Walsh L (2002) Mast cell/T cell interactions in oral lichen planus. J Oral Pathol Med. 31(4):189-195. https://doi.org/10.1034/j.1600-0714.2002.310401.x

[6] Sivolella S, Berengo M, Cernuschi S, Valente M (2012) Diode laser treatment is effective for plaque-like lichen planus of the tongue: a case report. Lasers Med Sci. 27:521-524. https://doi.org/10.1007/s10103-011-0970-6

[7] Rödström PO, Jontell M, Hakeberg M, Berggren U, Lindstedt G (2001) Erosive oral lichen planus and salivary cortisol. J Oral Pathol Med. 30(5):257-263. https://doi.org/10.1034/j.1600-0714.2001.300501.x

How to Cite;

Akyüz M, Uzun S, Altindağ A, Mağat G, Orhan K (2024) Corticosteroids and Immunosuppressants on Oral Lichen Planus' Treatment. Eur J Ther. https://doi.org/10.58600/eurjther2111