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TUG OF WAR: EFFICACY V/S SIDE EFFECTS- MANAGEMENT OF EROSIVE LICHEN PLANUS

***Dr. Anukrati Molasaria, Dr. Dimple Singh, Dr. Shweta Chaturvedi, Dr. Hina Handa**

India.

***Corresponding Author: Dr. Anukrati Molasaria**

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ABSTRACT

Oral lichen planus (OLP) is a chronic immune-mediated mucocutaneous disorder commonly affecting middle-aged and elderly individuals, with a higher prevalence in females. Early diagnosis and follow-up play a vital role along with other systemic disease to improve overall health. This case showcases a case of elderly 70-year-old female patient with a chief complaint of burning sensation and ulceration in the oral cavity for three months, aggravated by spicy and hot foods. Medical history revealed hypertension, diabetes mellitus, rheumatoid arthritis, and varicose veins for which the patient was treated since 5years based on the clinical appearance and histopathological diagnosis erosive lichen planus was considered. A management included steroid sparing agent methotrexate on which patient was already on with dose alteration in consultation with the rhuematologist and 6 week follow up was done, the lesion was completely resolved. Moreover, all the medical conditions were controlled and overall quality of life of patient was improved and regular follow-up due to the potential for malignant transformation. The highlights of the case were, a tug of war between the efficacy of steroids despite the web of comorbidities.

KEYWORDS: Erosive lichen planus, Methotrexate, Burning sensation, Medical history

INTRODUCTION

Oral lichen planus (OLP) is a chronic, T-cell–mediated inflammatory disorder of the oral mucosa with an unclear etiology, though autoimmune mechanisms are strongly implicated[1]&.[4] It commonly affects middle-aged individuals, with a female predilection, and follows a chronic relapsing course with a potential risk of malignant transformation.[1,4] Clinically, OLP presents in multiple forms, including reticular, papular, plaque-like, atrophic, bullous, and erosive variants.[4,85] The reticular type is usually asymptomatic with Wickham's striae, whereas erosive oral lichen planus (EOLP) is the most severe form, presenting with erythematous ulcerated areas and peripheral keratotic striae, often causing pain, burning sensation, and difficulty in eating and speaking.[5,8,10] Histopathologically, it shows basal cell degeneration and a dense, band-like lymphocytic infiltrate.[2,3]

Topical corticosteroids remain the first-line therapy due to their anti-inflammatory and immunosuppressive effects.[6,7] with agents such as clobetasol propionate, fluocinonide, and triamcinolone acetonide effectively reducing lesion severity[6,8] though prolonged use may lead to mucosal atrophy and candidiasis.[8] In refractory cases, steroid-sparing agents like methotrexate have shown promising results[11,14] by reducing inflammatory activity and corticosteroid dependence[12,13] but require careful monitoring due to potential adverse effects including hepatotoxicity and bone marrow suppression.[11]

CASE DESCRIPTION

A 70-year-old female patient (Fig.1) reported to the Department of Oral Medicine and Radiology, People's Dental Academy, Bhopal, with a chief complaint of painful ulcers on the cheeks and palate associated with a burning sensation for 3 weeks. The patient was asymptomatic prior to this period, after which she developed sudden-onset, dull aching, non-radiating pain on bilateral buccal mucosa. Her medical history was significant for Diabetes Mellitus and Hypertension since 5 years, and Rheumatoid Arthritis since 6 months, for which she was on medication.

Fig. 1.

Intraoral examination revealed multiple bilateral erosive lesions (Fig 2 &3) on the buccal mucosa with erythematous borders and characteristic interlacing white striations. The lesions were irregular, atrophic, and non-scrapable, measuring approximately 3.5 × 2 cm, with additional involvement (Fig. 4) of the palate (12–18 region on the right and 23–25 region on the left). On palpation, the lesions were tender without induration or bleeding. Based on clinical presentation, a provisional diagnosis of Erosive Oral Lichen Planus was made, with differentials including Oral Lichenoid Reaction, Erythematous Candidiasis, Erythema Multiforme, Pemphigus Vulgaris, and Grinspan Syndrome.

Fig. 2.

Fig. 3.

Fig. 4.

Histopathological examination confirmed the diagnosis (Fig.5) by revealing hyperkeratosis, acanthosis, saw-tooth rete ridges, and basal cell degeneration, consistent with erosive oral lichen planus.

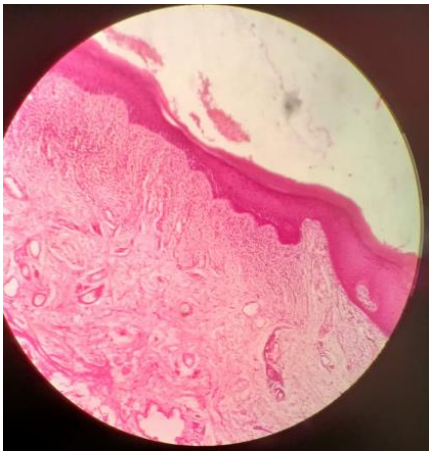

Fig. 5.

Following clinicopathological correlation, the patient was managed with topical corticosteroids (triamcinolone acetonide 0.1% twice daily for 7 days), Prednisolone (5 ml, swish and spit), and multivitamins once daily. Baseline VAS scores were 10 for pain and 8 for burning sensation. At the 1-week follow-up, pain remained unchanged, though burning sensation slightly reduced; however, a new lesion appeared on the floor of the mouth (Fig.6) with persistent erythema. In consultation with the rheumatologist, the Methotrexate dosage was increased from 7.5 mg to 10 mg weekly. After 15 days, there was significant symptomatic improvement (VAS: pain 6, burning 4), reduction in erythema, and no new lesions, so the same treatment was continued.

Fig. 6.

By the end of 21 days, complete remission of lesions (Fig 7& 8) was observed with VAS scores reducing to 0 for both pain and burning sensation. The patient has been kept under periodic follow-up every 6 months to monitor for recurrence and potential malignant transformation, which is a known risk in erosive forms of oral lichen planus.

Fig. 7.

Fig. 8.

DISCUSSION

Erosive oral lichen planus (EOLP) is a chronic immune-mediated condition with a relapsing course and potential risk of malignant transformation, requiring long-term monitoring.[1,4,9] It often presents therapeutic challenges due to its recalcitrant nature and variable response to conventional treatment.[5,7] While topical corticosteroids remain the mainstay of management[6,7] their prolonged use is associated with adverse effects and reduced efficacy over time.[6,8] In such resistant cases, systemic steroid-sparing agents like methotrexate have demonstrated promising outcomes in reducing disease activity and corticosteroid dependence,[11-14] though careful monitoring is necessary due to potential adverse effects.[11,14,15]

Methotrexate has emerged as a promising steroid-sparing agent in the management of refractory EOLP due to its immunosuppressive action, particularly its ability to inhibit T-cell proliferation and modulate inflammatory pathways.[11-14] The study by Lajevardi et al. (2016) demonstrated that weekly administration of 15 mg methotrexate for 12 weeks resulted in significant clinical improvement in approximately 83% of patients with refractory EOLP, with only mild adverse effects reported.[11] Similarly, a scoping review by Pedraça et al. (2023), which evaluated 32 studies on systemic non-steroidal immunomodulators, identified methotrexate as the most consistently effective agent among available options, highlighting its potential as a preferred steroid-sparing therapy.[12] These findings support the growing body of evidence favoring methotrexate in resistant cases where conventional therapy fails.

In the present case, escalation of methotrexate dosage in consultation with the rheumatologist led to marked clinical improvement, with reduction in pain and burning sensation followed by complete remission within three weeks. This favorable outcome underscores the effectiveness of methotrexate in controlling disease activity and reducing corticosteroid dependence in recalcitrant EOLP. However, its use requires careful patient selection and regular monitoring due to potential adverse effects such as hepatotoxicity and bone marrow suppression, particularly at higher doses.[11,14,15] Therefore, an individualized, multidisciplinary approach integrating both topical and systemic therapies is essential for optimal management of erosive oral lichen planus, especially in resistant cases.

CONCLUSION

In this case Benefit/risk ratio was assessed and the dose alteration was done from 7.5mg to 10mg methotrexate once a week for the drug on which patient was already on in consultation with the rheumatologist so as to judicial use of the drug considering patients immunity and overall health.

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