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Original Research

Triamcinolone acetonide and oral methotrexate in the management of oral lichen planus

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ABSTRACT:
Background: Lichen planus is frequently occurring muco- cutaneous disease. The present study was conducted to compare triamcinolone acetonide and oral methotrexate in the management of oral lichen planus. **Materials & Methods:**40 cases of lichen planus of both genders were divided into 2 groups. Group I was given 0.1% topical triamcinolone acetonide thrice daily and group II was given oral methotrexate thrice daily. Visual analog scale (VAS) was used for pain assessment. **Results:** Group I had 7 males and 13 females and group II had 6 males and 14 females. Duration of symptoms in group I was 2.4 years and in group II was 3.1 years. Difficulty in eating and/or drinking was seen in 32 in group I and 35 in group II. The mean clinical severity score (CSS) at baseline was 5.9 in group I and 4.8 in group II and at 4 months was 2.5 in group I and 2.1 in group II. A significant difference between groups was observed (P<0.05). The baseline VAS was 6.5 in group I and 6.7 in group II. At 4 months was 2.3 in group I and 1.6 in group II. The difference was significant (P< 0.05). **Conclusion:** Both drugs were effective in relieving symptoms in patients with oral lichen planus.
Key words: Lichen planus,Methotrexate, Triamcinolone

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INTRODUCTION

Lichen planus is frequently occurring muco-cutaneous disease. It is one of the auto-immune inflammatory disease which has high impact on mental health of life. It is commonly occurring in females and middle age group is leading affected group.It occurs in various forms such as reticular, bullous, erosive, erythematous, plaque, annular, papular etc.[1]

The main etiological factor of lichen planus is stress. There are reported exacerbations of the lesion associated with anxiety and psychological stress.[2]Psychosomatization arising from prolonged emotional stress contributes greatly to initiation and clinical expression of the lesion.Various treatment options are available for the management of lichen planus such as use of topical, systemic steroids, immunomodulators, herbal products etc.[3]Systemic medications such as beta blockers, nonsteroidal anti-inflammatory drugs, anti malarials, diuretics, oral hypoglycemics, penicillamine, oral retroviral medications are reported to initiate or exacerbate oral lichen planus and oral lichenoid reaction. Triamcinolone acetonide is one of the topical corticosteroids found to be effective in the management of oral lichen planus.[4] Topical steroids are preferred over systemic steroids owing to its less side effects. Methotrexate is one of the immunosuppressant drug inhibiting dihydrofolate reductase competitively, thereforehinder replication and function of T and B lymphocytes. Its efficacy against cutaneous, oral erosive and vulvovaginal LP found be high.[5]This study was conducted to compare triamcinolone acetonide and oral methotrexate in the management of oral lichen planus.

MATERIALS &METHODS

This study comprised of 40 cases of lichen planus of both genders. All were enrolled after explaining them about the study and obtaining their written consent.

Data such as name, age and gender etc. was recorded. Patients were divided into 2 groups of 20. Group I was given 0.1% topical triamcinolone acetonide thrice daily and group II was given oral methotrexate thrice dailyfor 4 months. Remission was defined absence of signs and symptoms of lesions. The objective improvement was graded as excellent, good, poor, no response and worsening. Visual analog scale (VAS) was used for pain assessment. Results were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table 1: Distribution of patients

Groups	Group I	Group II
Agent	0.1% topical triamcinolone acetonide	Oral methotrexate15 mg/week
M:F	7:13	6:14

Table I shows that group I had 7 males and 13 females and group II had 6 males and 14 females.

Table II: Assessment of symptoms in both groups

Variables	Parameters	Group I	Group I	P value
Duration of symptoms (years)		2.4	3.1	0.05
Difficulty in eating and/or drinking		32	35	0.94
Clinical severity score (CSS)	Baseline	5.9	4.8	0.02
	At 4 months	2.5	2.1	

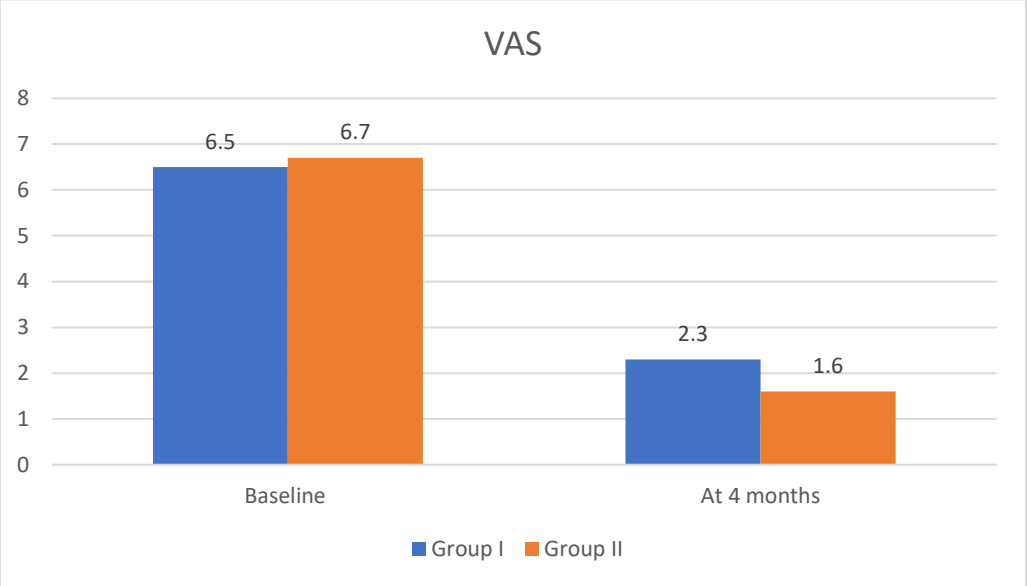
Table II shows that duration of symptoms in group I was 2.4 years and in group II was 3.1 years. Difficulty in eating and/or drinking was seen in 32 in group I and 35 in group II. The mean clinical severity score(CSS) at baseline was 5.9 in group I and 4.8 in group II and at 4 months was 2.5 in group I and 2.1 in group II. A significant difference between groups was observed (P<0.05).

Table III: Comparison of VAS

VAS	Group I	Group II	P value
Baseline	6.5	6.7	0.92
At 4 months	2.3	1.6	0.05

Table III, graph I shows that baseline VAS was 6.5 in group I and 6.7 in group II. At 4 months was 2.3 in group I and 1.6 in group II. The difference was significant (P< 0.05).

Graph I: Comparison of VAS



DISCUSSION

Lichen planus is an immunologically mediated mucocutaneous disease that is triggered by varied etiological agents.[6] The oral lichenoid reaction is considered a variant of the disease that needs to be clearly diagnosed as a separate entity from oral lichen planus and treated. They follow a strict cause-effector relationship, protocols that suggest the differentiation.[7] Lichen planus has varied clinical forms in the oral mucosa and cutaneously that has

different prognosis. This condition also arises in association with various other systemic conditions such as hypertension, diabetes mellitus.[8,9] There have been cases reported in the esophagus, larynx, scalp, nail, cutaneous areas, especially arms and wrists, trunk.Lichen planus is one of the potentially malignant disorders in which chances of conversion to oral cancer is high.[1] Erosive form has high malignant potential.The most striking oral feature of oral lichen planus is the presence of wickham striations.[10] These are radiating greyish whitish striations commonly occur in buccal mucosa. Other sites involved are lips, gingiva, soft palate etc. The predisposing factor for lichen planus is stress, depression, anxiety, psychiatric disorders.[11,12]This study was conducted to compare triamcinolone acetonide and oral methotrexate in the management of oral lichen planus.

We found that group I had 7 males and 13 females and group II had 6 males and 14 females.Turan et al[13] studied efficacy of MTX in LP patients. A single oral dose of 15 mg/week in four patients and 20 mg/week in seven patients was given. Improvement of mucocutaneous lesions and pruritus was noted within the first month in all patients. Complete response was achieved in 10 patients at the end of the first month, and the dosage of MTX was then decreased gradually. One patient discontinued MTX because of intolerable adverse effects (nausea and fatigue) at the fourth week. The therapy was well tolerated without any adverse effects or laboratory abnormalities in 10 patients.Patients received MTX therapy for 5 to 15 weeks (median, 9.6 weeks) with a cumulative dose between 65 and 260 mg. There are no large controlled studies assessing the efficacy and safety of systemic treatment alternatives for generalized LP. Only systemic corticosteroids have been widely used and are usually found to be effective, but prolonged use often results in serious side effects.

We found that duration of symptoms in group I was 2.4 years and in group II was 3.1 years. Difficulty in eating and/or drinking was seen in 32 in group I and 35 in group II. The mean clinical severity score (CSS) at baseline was 5.9 in group I and 4.8 in group II and at 4 months was 2.5 in group I and 2.1 in group II. Hazra et al[14]evaluated the efficacy of methotrexate and mini pulse betamethasone in the treatment of 44 patients of lichen planus. 23 patients in Group A (case) and 21 patients in Group B (control) were selected. The case was treated with oral methotrexate and the control was treated with betamethasone oral mini-pulse therapy. At the end of the present study, it was found that 16(69.6%) patients in cases completely cured the disease, whereas 10(47.6%) patients among the control cured the disease. Data showed that moderate remission was higher among the control 6(28.6%) compared to cases 5(21.7%) and the partial remission was also higher among the control 5(23.8%) compared to cases 2(8.7%). However, the efficacy was better in patients taking methotrexate and it also showed that macular and papular lesion responded well than plaque type lesion. Differences in treatment outcome were seen better in methotrexate group but the difference was not statistically significant.

We found that baseline VAS was 6.5 in group I and 6.7 in group II. At 4 months was 2.3 in group I and 1.6 in group II. Malhotra et al[15] involved 49 patients with moderate to severe oral lichen planus. Group A patients received either OMP comprising 5 mg of betamethasone orally on 2 consecutive days per week, group B received triamcinolone acetonide (0.1%) paste application thrice daily for 3 months. 23 of 25 patients in group A and 23 of 24 patients in group B completed the study. Good to excellent response was seen in 17 of 25 (68.0%) patients in group A as compared with 16 of 24 (66.0%) in group B at 6 months. Symptom-free state was achieved in 13 of 25 (52%) patients in group A and 12 of 24 (50%) in group B. The difference in the mean scores within each group was statistically significant from the fourth week onward in group A and eighth week onward in group B, whereas in patients with erosive disease it was second and twelfth week onward, respectively.

CONCLUSION

Authors found thatboth drugs were effective in relieving symptoms in patients with oral lichen planus.

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