The effect of topical Amlexanox in the treatment of oral lichen planus: A trial using experimental design

Anish N
Annoor Dental College and Hospital, India

Background & Objective: Oral Lichen Planus (OLP) is a chronic inflammatory mucocutaneous disease of which actual etiology is still unclear. Current data suggest a T-cell mediated autoimmune etiology is still unclear. Current data suggests a T-cell mediated autoimmune etiology in which CD8+ T-cells trigger the apoptosis of oral epithelial cells. Treatment is mainly symptomatic, corticosteroids being the drug of choice. Search for agents without the side effects of corticosteroids resulted in Amlexanox ($C_{16}H_{14}N_{2}O_{4}$), an anti-inflammatory drug, which inhibits histamine formation and release, TNF-α and leukotrienes from mast cells, neutrophils and mononuclear cells resulting in reduction of inflammatory component. This study was done to observe the effect of topical Amlexanox in treatment of OLP by assessing the reduction in the size of the lesion by visual clinical examination and the reduction in burning sensation and pain using Visual Analog Scale (VAS).

Material & Method: Treatment was carried out using 5% Amlexanox applied thrice daily for 16 weeks followed by 8-month review period in 29 biopsies confirmed OLP patients. Clinical size of lesion in cm$^2$ and degree of burning sensation using VAS were analyzed.

Result: Reduction of mean VAS score from 4.14 (pre-treatment) to 1.89 (post-treatment) was reported. Mean size of the lesion 2.46cm$^2$ (pre-treatment) remained the same after treatment. When the VAS score p-value (0.000) was statistically significant, the size of the lesion was same and was insignificant (0.237).

Conclusion: The study indicates that 5% Amlexanox applied topically, could effectively reduce burning sensation in OLP patients, has lesser side effects than corticosteroids. Therefore, 5% Amlexanox application topically may be used as an alternative to corticosteroids for reducing burning sensation and pain in the treatment of OLP.

anishnsh2727@hotmail.com