

## EFFICACY OF TOPICAL USE OF AMLEXANOX AND FLUOCINOLONE ACETONIDE GELS IN THE TREATMENT OF ORAL LICHEN PLANUS

Mostafa El-Shennawy\*

### ABSTRACT

This study was done on 45 patients having erosive and/or atrophic OLP, they divided into 3 groups. Each group received different medications (5% amlexanox, 0.1% fluocinolone acetonide and placebo vehicle gels). The study period was 3 weeks, through which clinical evaluations and assessment of serum IFN- $\gamma$  level with pain scores were done. The results showed the superior of fluocinolone acetonide 0.1% followed by amlexanox 5%.

### INTRODUCTION

Oral lichen planus (OLP) is a relatively common chronic immunoregulatory inflammatory disease of unknown etiology, involving skin and mucous membranes of squamous cell origin.<sup>(1)</sup>

The prevalence of OLP varies from 0.1% to about 4% depending on the population sampled.<sup>(2)</sup> OLP is mostly found in middle-aged and elderly persons, the female to male ratio is about 2:1.<sup>(3)</sup> Although the pathogenesis of OLP is still an area of active investigation, it is well documented that OLP represents a cell-mediated immune response with the infiltrating cell population composed of both T<sub>4</sub> and T<sub>8</sub> lymphocytes.<sup>(4)</sup>

Immunohistochemical and electromicroscopic studies in OLP have shown that the subepithelial infiltrates are predominantly CD<sub>4</sub><sup>+</sup> cells, while epidermal are CD<sub>8</sub><sup>+</sup> cells.<sup>(5)</sup> These intraepithelial CD<sub>8</sub><sup>+</sup> cells can release interferon- $\gamma$  (IFN- $\gamma$ ), which activated macrophages and enhances expression of

adhesion molecules on endothelial cells.<sup>(6,7)</sup> IFN- $\gamma$  influences the behavior of the lesional cells and the overlying epithelium, and can be serves as a marker of disease activity.<sup>(8)</sup>

Many agents such as corticosteroids, vitamin A, griseofulvin, fluocinonide and cyclosporine have been helpful in management of OLP, but the high cost of effective dose of cyclosporine and the side effects of systemic corticosteroids and griseofulvin, often limits their use.<sup>(1,9,10)</sup>

Fluocinolone acetonide 0.1% in an adhesive base have been shown to be a safe and effective drug to reduce signs and symptoms in OLP.<sup>(11)</sup> Amlexanox 5% paste has a beneficial effects in accelerating the healing of aphthous ulcers in well-controlled clinical studies.<sup>(12)</sup> Amlexanox has been shown in preclinical studies to have both anti-allergic and anti-inflammatory properties.<sup>(13)</sup> It is being used clinically in Japan in alternate formulations (tablets, nasal spray and eye drops) for treat-

\* Ass. Professor of Oral Medicine and Periodontology., Faculty of of Dentistry. Mansoura University.