

## **Comparison of topical betamethasone versus topical tacrolimus 0.1% in the treatment of vitiligo**

**Mirmohammadi M, MD, Babaeinezhad S, MD, Javadzadeh Y, MD, Heriszchie Ghadim H, MD.**

**Dermatology Department, Sina Hospital, Faculty of Medicine, Tabriz University of Medical Sciences**

**Background:** Vitiligo is a common dermatic disease that can occur at any age. Topical corticosteroids are usually used as the first treatment choice in adults and children. The role of tacrolimus in is shown in repigmentation in vitiligo. In this study we aim to compare the efficacy of topical betamethasone with topical tacrolimus 0.1% in treatment of vitiligo.

**Methods:** In this randomized clinical trial, 60 patients with vitiligo (23 male and 37 female with mean age of  $30.77 \pm 16.12$  years) were randomly assigned to two groups. In first group, topical tacrolimus 0.1% and in second group topical betamethasone was used. Patients were visited every month in first 6 months and every two months in the last six months. At the end of the study, repigmentation rate, side effects and patients' satisfaction from each treatment were recorded.

**Results:** In tacrolimus group, repigmentation rate was 1-24% in 16.7%, 25-49% in 46.7%, 50-74% in 20% and 75-99% in 10%. In betamethasone group, these results were 33.3%, 13.3%, 10% and 3.3%, respectively. Degrees of repigmentation was significantly higher in tacrolimus group compared to betamethasone group ( $p < 0.001$ ). Side effects including erythema were observed in 3 cases (10%) in tacrolimus group and 0 cases in betamethasone group and the difference was not significant ( $p = 0.23$ ). Dermatitis and burning were not seen in any cases. Patients in betamethasone group were significantly more unsatisfied (56.7% vs. 20%,  $p = 0.001$ ).

**Conclusion:** Treatment with tacrolimus accompanies with considerable repigmentation. Considering the patients satisfaction in treatment with this drug and the low side effects observed, using this treatment can be recommended in patients with vitiligo.

**Keywords:** Vitiligo; Topical Tacrolimus; Betamethasone