

Abstract N°: 2408**Topical Methotrexate Loaded Nanoparticles for The Treatment of Vitiligo: a clinical trial.**Rana Gheith*¹¹alahrar teaching hospital , dermatology, SHARQIA, Egypt

Introduction & Objectives: The objectives of vitiligo treatment is always regimentation as well as disease stabilization. Systemic methotrexate was used in vitiligo treatment with a therapeutic success achieving treatment objectives. Nano-sized carriers are widely used as topical vehicles to accentuate drug delivery to the diseased skin. Topical methotrexate (MTX) loaded nano biopolymer is a new therapeutic option for vitiligo. The Objective of this study** was to evaluate the therapeutic efficacy and safety of topical gel of MTX loaded nano biopolymer in vitiligo treatment.

Materials & Methods: The study was performed on 60 vitiligo patients. They were divided in 2 groups. Group I included 30 vitiligo patients and they were applied a topical gel of MTX loaded nano biopolymer on a single vitiligo patch for 6 weeks. Group II included 30 vitiligo patients and they received a topical placebo gel. Clinical responses with digital photographs and dermoscopy for the treated vitiligo patch were evaluated at 3 follow up visits (3 weeks, 6 weeks after start of treatment, and 6 months after the end of the treatment). Two cases in each group were lost during the follow up visits.

Results: Six patients of group I showed excellent clinical improvement and four patients of the same group experienced marked clinical improvement. There was a statistically significant relation between vitiligo activity and the clinical response to topical MTX nano gel. Regarding the follow up by dermoscopic signs, there was a statistically highly significant decrease in microkoebner and the ill defined border and a statistically highly significant increase in well defined border, marginal and intralesional pigmentation after treatment with topical MTX nano gel. A statistically significant increase in perifollicular pigmentation was also demonstrated after treatment in MTX group.

Conclusion: Topical MTX nano gel is a new effective treatment option of active Vitiligo

