



ACNE, ROSACEA, AND RELATED DISORDERS (INCLUDING HIDRADENITIS SUPPURATIVA)

EVALUATION OF THE EFFICACY AND TOLERANCE OF ORAL ANTIOXIDANT FORMULATION ON ACNE LESIONS: A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED COMPARATIVE STUDY

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Introduction: Acne is a most common chronic dermatologic illness. In the past, it was thought that follicular plugging preceded *Propionibacterium acnes* colonization, which subsequently resulted in inflammation. Recently it has been discovered that subclinical inflammatory events are occurring prior to hyperseborrheic and hyperproliferative events. It was hypothesized that antioxidants would be of value in limiting and preventing the condition.

Objective: Evaluate the efficacy and tolerance of an oral antioxidant formulation (OAF) on acne lesions.

Material and methods: Forty subjects were included in the study. Patients had to ingest daily one tablet of OAF (Selenium 50µg, Zinc 7,5mg, Vitamin E 30mg, Nicotinamide 20mg, Superoxide Dismutase 250UI), or a placebo for 1 month-treatment. The main evaluation criteria were a percentage of positive responses, defined by a reduction of the mean acne score (it's calculated by giving each type of lesion a severity index ranging from 0.5 for comedones to 4 for cysts and by multiplying it with the number of each type of lesion) and general tolerance. The parameters for evaluation were realized at Day0, Day15 and Day30. Differences from baseline were compared by the Wilcoxon signed-rank test.

Results: Ten healthy volunteers (mean 20,7 years) with facial acne grade 1 and 2 have already completed the study. Six patients had been ingesting OAF and four patients – it's placebo. The former subjects reported significant reduction of the acne score at D15 and D30 compared with D0 ($p < 0.01$), and the latter subjects reported no significant reduction of the mentioned score ($p > 0.05$). Tolerability was excellent for all subjects. There was no difference in the groups at D0 ($p > 0.05$).

Conclusions: Proceeding from the first results of the trial, OAF was very well tolerated and





may decrease the severity, prevent the inflammatory component of acne which is crucial in its pathogenesis, but further investigations is necessary.

