

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

## EFFECT OF ORAL CONTRACEPTION ON ACNE AND HIRSUTISM IN FEMALES

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**Objective:** To evaluate the efficacy of oral contraceptive (OC) containing levonorgestrel (LNG) and ethinyl estradiol (EE) compared with levonorgestrel (LNG) only contraceptive pills for the treatment of acne and hirsutism in a randomized, non-placebo controlled Prospective clinical trial.

**Patients and methods:** The study was carried out on 80 females (19-45 years old) attending Outpatient clinic of Department of Dermatology, Venereology and Andrology, Assiut University Hospital and Family Planning clinic, Luxor, Egypt. Females were classified into 20 patients with acne, 20 patients with hirsutism and 40 healthy females as a control. They were randomized to receive both 0.03 mg of LNG + 0.15 mg of EE or 0.03 mg of LNG only for six months. Assessment of acne by Global Acne Grading system and Assessment of hirsutism by Modified Ferriman Gallway grading system, were performed at baseline, 2nd, 4th and 6 months after treatment. Serum free testosterone was measured at baseline and 6 months after treatment. Digital photography of lesions was taken before and after treatment.

**Results:** There was highly significant increase of serum free testosterone at 0 visit (before treatment) between acne and hirsutism patients compared to control group ( $P < 0.000$ ). After 6 months of treatment with LNG/EE in acne group, serum free testosterone and Global Acne Grading system ( $P < 0.000$ ), were significantly decreased, compared to LNG only. After 6 months of treatment with LNG/EE in hirsutism group, there was significant decrease in Modified Ferriman Gallway grading system ( $P < 0.000$ ,  $P < 0.02$  respectively) compared to LNG only. Also in hirsutism patients, there was non-significant decrease in serum free testosterone between baseline and after 6 months of treatment in each both groups.

**Conclusion:** OC containing both (0.03 mg of LNG + 0.15 mg of EE) and (0.03 mg of LNG) only is an effective and safe treatment for acne and hirsutism.