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

A PROSPECTIVE METHODOLOGICAL CASE-CONTROL STUDY: THE EFFECT OF SYSTEMIC ISOTRETINOIN TREATMENT ON OVARIAN RESERVE

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Background/Aims: Systemic isotretinoin is the most effective treatment for acne. Several side effects of systemic isotretinoin have been reported in many organ systems. There are few studies on the effect of female gonads have been reported. The aim of this study is to evaluate the effects of systemic isotretinoin on ovarian reserve (with analyzing levels of serum amh (antimullerian hormone), ovarian volume and antral follicle counts) in women with acne.

Methods: Fortythree female patients with severe acne and 26 control group were included in the study. The participants in acne group were divided into two groups: group 1 (oral isotretinoin, 0.5 mg/kg/d), group 2 (oral isotretinoin 1 mg/kg/d). Total cumulative dose for a full course 120 mg / kg. Pre-treatment,at the third month of starting treatment and post treatment (ane month after the treatment) antimullerian hormone (AMH), antral follicle count(AFC) and ovarian volume (OV) were evaluated.

Results: A statistically significant decrease in serum AMH levels and mean ovarian volume was observed in group 1 and group 2 before and 3 months after the treatment ($p < 0.001$). In addition, in both groups, serum amh levels measured one month after the end of treatment were found to be significantly higher than the second evaluation. Also there is no statistically difference in serum AMH levels in both groups before treatment and one month after the treatment.

Conclusion: The results of our study demonstrated that oral isotretinoin had a reversible effect on ovarian reserve.