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TITLE

EFFECT OF ORAL CONTRACEPTIVES ON ANTI-MULLERIANHORMONE LEVELS IN YOUNG WOMEN WITH POLYCYSTIC OVARY SYNDROME

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ABSTRACT

Context: According to the Rotterdam Consensus, antral follicle count (AFC) on ultrasound is one of the diagnostic criteria for polycystic ovary syndrome (PCOS). Recently, by some authors serum anti-Mullerian hormone (AMH) is considered to be a “Gold Standard” in the diagnosis of PCOS. Traditionally, oral contraceptives (OCs) have been used in treatment of PCOS. There are controversial opinions regarding the impact of hormonal contraception on the AMH levels. Advantages of AMH in diagnostics and management of PCOS have become the main subject of interest nowadays.

Objective: Investigation of efficiency of OCs in the treatment of PCOS by assessment of serum AMH levels.

Methods: AFC, ovarian volume, AMH, total testosterone (TT), luteinizing hormone (LH) and immunoreactive insulin (IRI) levels were measured prior to and 3 menstrual cycles after starting treatment.

Patients: 40 young women with PCOS, aged 14-30 years were involved in the prospective, open-label study.

Interventions: All patients were treated with OCs (drospirenone 3 mg/ethinylestradiol 30 µg) during 3 menstrual cycles.

Results: The values of AMH, LH, TT, AFC and ovarian volume were significantly decreased after administrations of OCs ($p<0.001$). The levels IRI did not change statistically significantly. There were significant correlations between pre- and post-treatment AMH, AFC and ovarian volume (pretreatment $p<0.001$, post-treatment $p<0.05$).

Conclusions: Treatment with OCs significantly decreases levels of AMH that is associated with suppression of LH and decrease of TT. AMH seems to be a reliable marker for monitoring efficiency of treatment in young women with PCOS.

INSTITUTE

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