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TITLE

THE EXPERIENCE OF USING MELATONIN IN THE COMPLEX TREATMENT OF WOMEN WITH POLYCYSTIC OVARY SYNDROME

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ABSTRACT

Context. Polycystic ovary syndrome (PCOS) is one of the most common endocrine diseases in women, wherein the reproductive disorders associated with anovulation, including infertility, can develop. High levels of lipid peroxidation products were revealed in follicular fluid, disrupting oocyte maturation in women with PCOS. Melatonin is a powerful antioxidant that is used in some protocols of ovulation induction for infertility, improving the quality of oocytes and implantation that determines a successful outcome of pregnancy. Objective. To evaluate the efficacy of using the drug - synthetic analogue of melatonin in the treatment of PCOS. Methods. Administration of a synthetic analogue of melatonin according to the medical application instruction of 1 tablet (3 mg) 30 minutes prior to sleep every day for 3 months with a combined oral contraceptive (COC) containing 30 mcg of ethinylestradiol and drospirenone in a complex therapy of PCOS. Patients. 40 patients with PCOS aged 17 to 35 year: 20 women received melatonin + COC with drospirenone and 20 women received only COC. PCOS was diagnosed on the basis of ESHRE/ASR (2007) criteria. Anovulation and polycystic ovaries were diagnosed in all patients according to the ultrasonography. The levels of luteinizing hormone, testosterone and insulin were not significantly different in 2 groups. Intervention. Transvaginal ultrasound examination after the end of therapy. Result. Ovarian volume significantly decreased after 3 months of complex therapy in patients treated with melatonin compared to group 2 ($p < 0.05$). Conclusion. Decrease of melatonin level in follicular fluid violates the maturation of follicles and leads to anovulation. Administration of melatonin in a complex therapy can increase the effectiveness of treatment and improve the reproductive prognosis in patients with PCOS when planning a pregnancy.

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