

Polycystic Ovarian Syndrome Conference

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ART treatment of infertile patients with PCO

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Patients with polycystic ovaries morphology (Polycystic ovaries-PCO and Polycystic ovary syndrome-PCOS) are very common among the population in infertility centers and women with PCO or PCOS comprised almost one fifth of them, referred to as assisted reproductive technology (ART)-IVF or ICSI. In the same time the control ovarian stimulation in this group is a challenge in terms of a prevention risk of an ovarian hyperstimulation syndrome (OHSS) and the achievement of oocytes and embryos with good quality. However, in the PCO patients very few studies have been published comparing agonist and antagonist protocols. Some of them claimed that in the century of GnRH-agonist it is unreasonable to perform in vitro maturation (IVM) and new gonadotropin-releasing hormone antagonist (anti-GnRH) and agonist GnRH-trigger protocols reliably prevent OHSS. Also metformin treatment before or during ART cycle's increases clinical pregnancy rates and decreases the risk of OHSS. There are many modifications such as flexible or inflexible antagonist protocols, mild stimulation or low dose FSH is discussed as a good option. Despite the fact that PCO women experienced excessive ovarian response or may be because of this, in this type of patients are observed several problems concerning fertilization rate (FR), number of immature oocytes and good embryos, implantation rate (IR) and pregnancy rate (PR) with high miscarriage rate. The data, published in the scientific space are controversial. The survey of our database of the women under 37 years, performing ART, represent that the average number of mature oocytes and FR in PCO patient are comparable with those with obstructive type sterility (control group), but cleavage rate is low and achieving of blastocyst is significantly rare among the former. Nevertheless, once we have obtained good quality blastocyst on day five, the PR is similar to the control group. In conclusion, infertile patients with PCO morphology are a problem which has been discussed since the last century but still they raise a lot of unsolved tasks.

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Letrozole versus combined metformin and clomiphene citrate for ovulation induction in clomiphene-resistant women with polycystic ovary syndrome: A randomized controlled trial

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Objective: To compare the effect of letrozole with combined metformin and clomiphene citrate (CC) for ovulation induction in CC-resistant women with polycystic ovary syndrome (PCOS).

Method & Design: A randomized controlled trial. Setting: University teaching hospital and a private practice setting. Patients: Two hundred fifty anovulatory women (582 cycles) with CC-resistant PCOS. Interventions: Patients received 2.5 mg of letrozole daily (123 patients, 285 cycles) or combined metformin-CC (127 patients, 297 cycles) for three treatment cycles. Main Outcome Measures: Ovulation rate, number of follicles, serum E2, serum P, endometrial thickness, pregnancy and miscarriage rates.

Results: Ovulation occurred in 185/285 cycles (64.9%) in the letrozole group versus 207/297 cycles (69.6%) in the combined metformin-CC group, without statistically significant difference. The total number of follicles was significantly more in the combined metformin-CC group (4.4 ± 0.4 vs. 6.8 ± 0.3). A non-significant increase in endometrial thickness on the day of hCG administration was observed in the letrozole group (9.5 ± 0.2 mm vs. 9.1 ± 0.1 mm). No statistically significant difference regarding the pregnancy rate (PR) was observed between both groups (14.7% vs. 14.4%).

Conclusions: Letrozole and combined metformin-CC are equally effective for inducing ovulation and achieving pregnancy in patients with CC-resistant PCOS.

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