

# **Clomiphene citrate Versus Cabergoline in Ovulation Induction by letrozole: A randomized clinical trial Study on of Infertile Polycystic Ovary Syndrome Women**

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## **Abstract:**

**Background:** Polycystic ovarian syndrome (PCO) is among the most common reasons for infertility in women of reproductive age.

**Objective:** to examine two pharmaceutical regimens for infertile women with polycystic ovarian syndrome.

**Method:** In this randomized clinical trial, 60 infertile women with PCO were randomly assigned into two arms, each having 30 subjects. The first arm received Clomiphene citrate (CC) followed by letrozole. The second arm received letrozole followed by cabergoline. Following the procedures, outcomes of biochemical pregnancy and incidence of the complications were recorded along with other baseline characteristics and laboratory data.

**Results:** Concerning age, weight, height, and BMI, both arms were matched. In terms of follicle quantity and size, as well as endometrial thickness, with no statistical differences among the study arms, although the cabergoline-letrozole regimen demonstrated a considerably higher success rate in the treatment of infertility. The endometrial examination revealed three-layered and transparent endometrium in both arms, although it was statistically more common in the letrozole-cabergoline arm ( $P = 0.001$ ). The successful pregnancy was achieved in 9 cases (30%) in the first arm and 7 (23.3%) in the second arm ( $P=0.54$ ), with no significant difference in adverse maternal events.

**Conclusion:** The letrozole-cabergoline regimen appears to be more successful in inducing ovulation in infertile women with PCOs. Other trials should be conducted over longer periods of time and at varied dosages to provide a more exact evaluation of its effect.

**Keywords:** Letrozole, Cabergoline, Infertile PCOS, Ovulation, Infertile Polycystic, Ovary Syndrome, Clomiphene citrate