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## EFFICACY OF LETROZOLE (LE) COMBINED WITH CABERGOLINE (CE) IN COMPARISON TO LE ALONE IN OVULATION INDUCTION AMONG PATIENTS WITH POLYCYSTIC OVARIAN SYNDROME (PCOS) AND HYPERPROLACTINEMIA (HP)

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**Background & Objectives:** PCOS is the most common cause of anovulatory infertility. Up to 64% of women with mild HP fulfill modified Rotterdam diagnostic criteria for PCOS. HP affects hypothalamic-pituitary-ovarian axis causing anovulation. CE, a dopamine receptor agonist, inhibits prolactin secretion and can lead to better ovulatory response in those patients. LE, an aromatase inhibitor, without adverse effects on endometrium, induces fewer mature follicles with less risk of ovarian hyperstimulation syndrome (OHSS). Our study aim was to investigate effects of combined LE and CE in comparison to LE alone on ovulation and clinical pregnancy rates in PCOS patients with HP.

**Methods:** A total of one eighty women with PCOS were enrolled in a hospital based clinical trial and randomly allocated into two groups (A and B). Participants were in the age group of 22–38 years, all with a serum prolactin >32 ng/ml. Patients in A group (92) were given LE, 5 mg from day cycle 3-7/3 cycles in addition to CE, 0.5 mg weekly for 12 weeks. Those in group B (88) received only LE; same dose and duration. All patients were matched for their age and body mass index. Exclusion criteria: other causes of HP. Main outcome measure was rate of ovulation and detection of both chemical and clinical pregnancies by estimation of  $\beta$ hCG and ultrasound detection of fetal cardiac activity, 2–4 weeks after missed period. Follow-up period was for six months. Statistical analysis of data was performed using SPSS version for windows. P-value was considered significant if <0.05.

**Results:** Three patients from group A and five from group B had drug side effects and were excluded from the study. None of the patients in either group were lost during the follow-up period. In group A, difference between mean serum level of prolactin before and after treatment was statistically significant (P<0.001): 48±3 ng/ml and 9.7±4.5 ng/ml, respectively. No significant decrease was observed in prolactin level in group B. Ovulation rate was higher in group A (64.8%) in comparison to group B (41.2%), (P<0.001). Clinical pregnancy rate was (40.8%) in group A and (27.3%) in group B (P<0.001). Neither twin pregnancy, nor OHSS were recorded in both groups.

**Conclusions:** The combination of LE and CE is superior to LE alone in management of anovulatory patients with PCOS and should be used as the first-line treatment for them.

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