IS EMBRYOGENESIS AND OUTCOME IN ART DIFFERENT IN PATIENTS WITH PCOS?

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AIM: to compare the outcome of ART in PCOS and NON-PCOS women.
MATERIAL & METHODS: Retrospective study of 189 women; 95 PCOS & 94 NON-PCOS matched for BMI. Age, FSH values, AFC, AMH, Total gonadotrophin utilized, total days of stimulation and E2 on day of hCG trigger - Baseline parameters. Fertilization, Cleavage, Blastocyst formation rate and also the utilization rate of the embryos from the total oocytes retrieved and fertilized in different E2 level groups on the day of the hCG (less than/equal 1000, 1001-2000, 2001-3500, more than 3500 pg/ml) were assessed.

RESULTS: Women who underwent ART were younger in PCOS group (29.33) than in NON-PCOS group (32.05). Mean AMH (4.29 vs 1.95) and AFC (21.23 vs 8.20) were significantly higher in PCOS group. Number of stimulation days was higher in PCOS group with a mean of 11.88 as against 10.53 in NON-PCOS group, which was statistically significant. Total gonadotrophin dose required was much lesser in PCOS group (1783 IU) versus NON-PCOS group (2405 IU). There was no significant difference in the Blastocyst, Cleavage and Fertilization rate. E2 level on day of hCG was more than 2000pg/ml in 54.74% of the PCOS women as against 32.98% in NON-PCOS women (p 0.001). No statistical difference seen in fertilization and cleavage rate in PCOS and NON-PCOS group with regards to E2 levels on day of hCG. However, Blastocyst formation rate was much higher even with E2 levels of more than 3500 pg/ml in NON-PCOS group.

CONCLUSION: Quality of embryos on Day 3 and Day 5 was much better in NON-PCOS group with E2 levels more than 2000. Clinical pregnancy rate in fresh cycles was 36.84% in PCOS group and 34.04% in NON-PCOS group. Cumulative pregnancy rate was higher in the PCOS group as more number of embryos were frozen.