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P-39 **The Effect of a Baseline Ovarian Cyst on the Outcome
of in vitro Fertilization-embryo Transfer**

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Introduction: How and in what degree the baseline ovarian cyst affects the in vitro fertilization-embryo transfer (IVF-ET) has been in question for the practitioners. In this study, the effect of baseline ovarian cyst in ovulation induction and in the IVF-ET outcome of GnRH agonist treated patients are investigated.

Materials and Methods: The 101 IVF-ET cases due to tubal factors, recruited from January 1996 to December 1998, were included in the study population. Thirty-one cases had ovarian cyst greater or equal to 1 cm, and 70 cases were without it. The long protocol was applied using Decapeptyl, and ovulation induction was done using the human menopausal gonadotropin (hMG). Transvaginal ultrasonography was used for the measurement of ovarian cysts. The patients age, ampules of hMG used, endometrial thickness and the level of E2 on the day of human chorionic gonadotropin administration were compared in the two groups. The outcome variables included the size of follicles, number of oocytes retrieved, mature oocytes, immature oocytes, postmature oocytes, embryos transferred, and clinical pregnancies. Fishers exact test was used for the comparison, and $p < 0.05$ was considered as statistically significant.

Results: The patients age, ampules of hMG used, and the endometrial thickness on the day of hCG administration were not different in the two groups. The peak E2 level significantly higher in the group without a baseline ovarian cyst ($p < 0.05$). The number of oocytes retrieved, the number of mature oocytes, the and the number of clinical pregnancies were significantly higher in the patients without a baseline ovarian cyst ($p < 0.05$).

Conclusion: A baseline ovarian cyst can negatively affect the outcome of IVF-ET. The increased dimension of ovarian cyst may entangle the development of oocytes and locally affect the angiogenesis. Based on this study results, the ovulation induction and IVF-ET schedule should be postponed in the presence of a baseline ovarian cyst to maximize the outcome. Further studies on the effect of cyst aspiration in the outcome of IVF-ET are warranted.