

P-22 Unexpected Successful Pregnancy in the Cancelled IVF-ET Cycle Due to no Response for Ovarian Hyperstimulation

**Mi Kyoung Koong¹, Jin Hyun Jun², Chun Kyu Lim²,
Ji Hong Song¹, Inn Soo Kang¹ and Jong Young Jun¹**

¹Department of OB & GYN, ²Infertility Research Laboratory, Samsung Cheil Hospital & Women's Healthcare Center, Sungkyunkwan University, College of Medicine

Poor response to controlled ovarian hyperstimulation (COH) is one of the most difficult problems in in-vitro fertilization and embryo transfer (IVF-ET) program. Furthermore, if serum estradiol (E₂) does not increase during COH, there is no choice other than cancellation of IVF cycle. The purpose of this study is to report unexpected ovulation and its outcome in four cases who had cancelled their IVF cycle due to no response in serum E₂ and could be followed up their menstrual cycle after cancellation. Four poor responders were enrolled in this prospective study. Their ages were 36, 38, 38 and 44 years old, and basal serum FSH levels were 31, 46, 18 and 28 mIU/ml (normal range: 4~12 mIU/ml) and serum E₂ levels were 14, 6.4, 15 and 12 pg/ml, respectively. Three cases except Case #2 started IVF treatment with GnRH-agonist, FSH and hMG. In Case #2, poor response was expected due to high basal FSH level (46 mIU/ml), she took clomiphene citrate 100 mg per day for 5 days, followed by FSH without GnRH-agonist. Although 21, 8, 40 and 24 ampoules were injected for 5, 4, 9 and 5 days, there were no response in serum E₂ (7.6, 8.1, 17 and 8.2 pg/ml) and their IVF cycles were cancelled. After that, they were followed up with basal body temperature and transvaginal sonogram for checking follicular growth and oocyte retrieval. Single dominant follicle (≥ 16 mm) was found on menstrual cycle day #16, 25, 26, 38 and serum E₂ at that day were 136, 120, 180, 145 mIU/ml, respectively. The oocyte retrieval was performed after 5000 IU HCG injection. In each case, one oocyte was retrieved (three: metaphase I, one: immature) and was successfully fertilized by ICSI and one embryo with 6-8 cell was transferred. Case #1 had biochemical pregnancy and Case #2 delivered a female baby (2480 gm) at 39-gestational weeks. Case #3 and 4 did not conceive in that cycle. Several modified protocols are proposed for the treatment of patients with decreased ovarian reserve undergoing COH for IVF-ET, such as minimal dose of GnRH agonist, high dose of gonadotropins or adjuvant growth hormone. However, the cancellation rate remains high in poor responders. Our study suggest that ovulation occurs by endogenous gonadotropins even in cancelled IVF-ET cycle due to no response in serum E₂ by exogenous gonadotropins. Therefore, the poor responders who cancelled their IVF cycle should be followed up and if they have a growing follicle, they can be rescued to continue their IVF-ET cycle.