

5례에서 임신이 성립되지 않았다.

**결론:** 체외수정에서는 Kruger 등의 관찰기준에 의한 정자형태율이 체외수정의 결과와 밀접한 관련을 갖지만, IUI를 실시할 경우에는 정상정자율 0~4%의 영역에서도 임신이 성립되는 것이 관찰되었다. 체외수정과 IUI의 이같은 차이는 IUI에서는 인체의 자연적인 정상정자 선별능력과 체외수정과 비교할 때 IUI시에 많은 수의 정자가 주입되는 점이 다른 결과를 가져온다고 할 수 있다. 따라서 정상정자 비율이 상당히 낮은 경우라도 보다 진전된 보조생식술로 나아 가기 전에 몇 번의 IUI를 시도하는 것이 의미가 있는 것으로 사료된다.

## O-14 The Comparison of Clinical Outcomes between GnRH Agonist Long Protocol and GnRH Antagonist Short Protocol in Oocyte Donation Program

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**Objective:** To assess and compare the clinical outcomes between GnRH agonist long protocol and GnRH antagonist short protocol in oocyte donation program.

**Materials and Methods:** Of total 18 oocyte donation cycles, controlled ovarian hyperstimulation were performed with GnRH agonist long protocol and GnRH antagonist short protocol in initial 9 cycles and later 9 cycles, respectively. Oral estradiol valerate and progesterone in oil were administrated to all recipients for endometrial preparation. Oral estradiol administration was started from donor cycle day 1 after full shut down of gonadal axis with GnRH agonist in patients with ovarian function. Progesterone was injected from oocyte retrieval day of donor initially, then continuously till pregnancy 12 weeks if pregnancy was on going. We compared the parameters of clinical outcomes, such as number of the retrieved oocytes, fertilization rate, high grade embryo production rate, clinical pregnancy rate, implantation rate, on going pregnancy rate between GnRH agonist long protocol group and GnRH antagonist group. Statistical analysis was performed using Mann-Whitney test,  $p < 0.05$  was considered as statistically significant.

**Results:** In total 18 IVF cycles with donated oocytes, number of the retrieved oocytes, fertilization rate, high grade embryo production rate, clinical pregnancy rate, implantation rate, on going pregnancy rate were  $13.06 \pm 8.15$ ,  $0.80 \pm 0.10$ ,  $0.64 \pm 0.25$ , 72.2%,  $0.33 \pm 0.30$ , 66.6%, respectively, in comparison of 2 subgroups (GnRH agonist long protocol and GnRH antagonist),  $14.89 \pm 7.83$  and  $11.22 \pm 8.50$ ,  $0.81 \pm 0.10$  and  $0.79 \pm 0.11$ ,  $0.64 \pm 0.20$  and  $0.64 \pm 0.31$ , 77.8% and 66.7%,  $0.31 \pm 0.24$  and  $0.34 \pm 0.35$ , 77.8% and 55.6%, respectively. There was no significant differences in parameters of clinical outcomes between 2 groups (All  $p$  value  $> 0.05$ ).

**Conclusion:** In oocyte donation program, clinical outcomes from controlled ovarian hyperstimulation with GnRH antagonist was comparable to GnRH agonist long protocol group, so controlled ovarian hyperstimulation with GnRH antagonist may be the safe, effective as much as GnRH agonist long protocol. At

least there may not be harmful effects of GnRH antagonist on oocyte development and quality.

## O-15 IVM after Interruption of COH for the Prevention of OHSS in PCOS Patients

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**Objective:** The purpose of this study was to evaluate the effectiveness of IVM after interruption of COH on the prevention of OHSS in patients undergoing controlled ovarian hyperstimulation for IVF or COH/IUI.

**Materials and Methods:** Twenty patients with polycystic ovarian syndrome (PCOS) were stimulated using HMG initially. All patients were taken serial ultrasonographic examinations to monitor size and number of follicles. For the prevention of OHSS, gonadotropin withholding was offered to them and a full dose of human chorionic gonadotropin (10,000 IU) was administered when  $\geq 20$  follicles (mean diameter of  $> 10$  mm) were observed on ultrasonography. And oocytes were retrieved 36 h later.

**Results:** Median duration of COH was 7 days, and the median ampoules of gonadotropins used during COH was 15.5. Among 297 oocytes (13 oocytes per patient) retrieved, 57 oocytes (19.2%) were in MII stage at retrieval, and 77.2% of the total oocytes were matured in vitro during 48 hours. ICSI was performed for fertilization of mature oocytes. Fertilization rate and cleavage rate were 80.3% and 95.2%, respectively. ET was performed in 20 cycles, and the clinical pregnancy rate was 45.0% (9/20). 5 Patients underwent blastocysts transfer, all of them were pregnant. There were no cases of OHSS in 20 patients.

**Conclusion:** This preliminary study suggests that IVM after interruption of COH may be a solution to the management of PCOS patients before appearance of features of OHSS at ultrasound examination in stimulated cycles for IVF or COH/IUI.

## O-16 반복적 착상 실패군 환자에서 G-CSF 사용의 임상적 유용성에 관한 연구

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**목 적:** 체외수정시술에서 반복적으로 착상에 실패한 환자를 대상으로 이식일에 G-CSF를 투여하여 착상을 및 임신율에 미치는 영향을 평가하고자 하였다.

**대상 및 방법:** 2001년 3월부터 2002년 8월까지 마리아병원에서 체외수정시술을 시행한 환자 중에서 타병원 및 마리아병원에서 2회 이상의 시술에서 실패한 145명의 환자를 대상으로 하였으며, 40세 이상