군에서는 수정률이 15.1%로 배아이식에 성공한군에서 78.2%보다 저조한 것으로 나타났으며 ($p<0.01$), 1 PN과 3 PN의 비율에 있어서는 각각 2.6%, 7.3%를 보였다. 특히 3PN의 비율에 있어서는 배아이식에 성공한 군에서는 1.8%를 보여 본 연구결과에서 나타난 배아이식에 실패한 군과 유의차를 보였다 ($p<0.01$). 또한 131주기에서 난자의 상태가 좋지 않은 것으로 나타났으며 여기에는 severe granulation, degenerative sign, abnormal morphology 등이 포함된다. 전혀 운동성이 없는 정자를 가지고 ICSI를 시행한 경우도 47주기였으며 이 때 수정이 전혀 이루어지지 않아 배아를 이식할 수 없었다. 여성의 나이는 본 연구에서는 배아이식의 시술여부와 상관관계가 없는 것으로 나타났다.

Conclusions: ICSI를 시행한 후 배아를 이식할 수 없는 경우에 있어서 대부분의 원인이 난자의 상태가 좋지 않거나 정자의 생존성이 저조한 경우에 나타나는 것으로 사료된다.

P-4 The Comparion of Clinical Outcomes between GnRH Agonist and GnRH Antagonist in Normal Responders

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Background & Objectives: To assess and compare the clinical outcomes between GnRH agonist short protocol and GnRH antagonist multiple dose protocol in normal responders.

Method: Retrospective clinical study. From January 2001 to December 2002, IVF cycles with normal responders who were basal FSH <10 mIU/ml and below 35 years were included. 782 cycles (679 patients) were performed controlled ovarian hyperstimulation (COH) by GnRH agonist short protocol in which GnRH agonist was intiated on menstrual cycle day 2 followed by exogenous gonadotropin on cycle day 3. 58 cycles (53 patients) were performed by GnRH antagonist multiple dose protocol in which multiple doses of 0.25 mg GnRH antagonist were intiated on follicle >14mm or E2 >150 pg/ml. We compared the clinical results such as total gonadotropin dose for COH, E2 on hCG administration, the numbers of retrieved oocytes and the pregnancy outcomes such as implantation rate (IR), clinical pregnancy rate (CPR), delivery rate (DR) per embryo transfer cycles between two groups. Statistical analysis was performed using Student-t test and Chi-square, $p<0.05$ was considered as statistically significant.

Results: There were no differences in mean age, infertility duration, basal hormones between GnRH agonist and GnRH antagonist groups. There were no significant differences in E2 on hCG administration, the numbers of retrieved oocytes and cancellation cycles between two groups but significantly higher gonadotropin dose for COH were needed in GnRH antagonist group (30.2 ± 12.2 vs. 41.1 ± 18.4, $p<0.001$). There was significant difference in the IR (13.6% vs. 19.3%, $p=0.028$). The CPR (30.9% vs. 40.0%) and DR (26.2% vs. 30.9%) were higher in GnRH antagonist groups but statistical significances were not found.

Conclusions: Though more gonadotropin doses were necessary for COH in GnRH antagonist group, the IR was significntly higher than GnRH agonist group. The significantly higher IR may induce higher CPR, DR in GnRH antagonist than GnRH agonist group. GnRH antagonist multiple dose protocol would be an alternative method for improved pregnancy outcome compared with GnRH agonist short protocol in