었는데 치료군에서 hCG를 투여하는 날 검사한 E2 수치가 더 높았다. 치료군에서는 87주기중 76주기에서, 대조군에서는 82주기중 64주기에서 배아 이식을 시행하였으며 자궁강내로 이식된 배아의 수는 치료군이 평균 2.72±1.64개, 대조군이 2.39±2.03개로 차이가 없었다. 화학적 임신율은 치료군에서 6.9%, 대조군에서 6.25%로 차이가 없었고 임상적 임신율은 치료군이 12.64%, 대조군은 18.75%로 대조군에서 더 높게 나왔으나 통계학적 유의성은 없었다. 또한, 황체기 중반에 검사한 혈중 프로게스테론치는 치료군에서 평균 59.89 ng/ml, 대조군에서 56.08 ng/ml로 별차이가 없었다.

결 론: 체외수정시술시 난자 채취 전후에 고용량의 프로게스테론을 투여하는 치료군의 경우 오히려 임신율이 프로게스테론을 투여받지 않은 대조군에 비해 낮게 나타나서 고용량의 프로게스테론이 자궁내막의 수용성을 증진시켜서 착상과 임신율을 개선시킨다고 생각할 수 없었다. 그러나 체외수정시 프로게스테론을 투여하는 방법이나 용량과 경로 등에 있어서 효과적인 일치된 방법이 아직 정해지지 않은 상태이기 때문에 이에 대한 추가적인 연구와 여타의 착상율을 높이기 위한 적극적인 노력이 필요할 것으로 사료된다.

M-8 The Efficacy of GnRH Antagonist (Cetrorelix) in IVF-ET Program

Kim SR, Lee IS, Lee HJ, Lee JH, Kim NY, Lee YB, Whang JD, Lee SJ

Laboratory of IVF, Mirae and Heemang Ob/Gyn Clinic, Kangnam-Gu Seoul, Korea

Objectives: The administration of gonadotrophin-releasing hormone (GnRH) antagonist, cetrorelix has been shown to block LH surge effectively during ovarian stimulation for IVF cycles. It can suppress the secretion of gonadotrophin within a few hours of administration. Furthermore, the risk of OHSS appears to be reduced after the use of the GnRH antagonist. The present study was designed to evaluate the efficacy of a GnRH antagonist, cetrorelix, in IVF-ET program.

Materials and Methods: A total of 80 IVF cycles was recruited between May 1 and September 22, 2001. Forty cycles each were randomized as a cetrorelix treatment group or a buserelin treatment group. For the cetrorelix group, ovarian stimulation was carried out with 225 IU of HMG, beginning from day3 of the menstrual cycle until one day before HCG injection. 0.25 mg cetrorelix was administered daily, beginning from day7 of the menstrual cycle until the day of HCG injection. For the buserelin group, 0.5 mg of buserelin was administered, beginning from the midluteal phase of the menstrual cycle preceding the ovarian stimulation cycle until the day of HCG injection. When pituitary desensitization was achieved by buserelin, ovarian stimulation was started with HMG until one day before the HCG injection. Oocytes retrieved from each group were subjected to the same IVF-ET program.

Results: Total duration of treatment in cetrorelix regimen was on average 17.7days shorter (4.7days versus 22.4days) compared to the buserelin regimen. Also, the duration of HMG administration in the cetrorelix group was shorter than that in the buserelin group (7.7days versus 8.8days). The mean dose of HMG administered were significantly less in the cetrorelix group than in the buserelin group (1796.3 IU versus 2402.0 IU). However, there was no difference between two groups, in terms of LH and oestradiol

concentrations measured on the day of HCG administration, the mean number of oocytes retrieved, fertilization rates, cleavage rates, clinical pregnancy rates and implantation rates. Furthermore, the incidence of OHSS in the cetrorelix group was not significantly different from that in the buserelin group.

Conclusions: These results show that the cetrorelix treatment for the IVF-ET program could achieve a similar clinical efficacy compared to the buserelin. Therefore it is suggested that cetrorelix treatment could be more advantageous because of the shorter period of application than the period needed for IVF-ET program using buserelin.

M-9 The Follicular Environment in Stimulated Cycles of Women with Endometriosis

Kang EH[1], Kim MS[2], Kim JS[2], Song HJ[1]

[1]Department of Obstetrics and Gynecology, [2]Infertility Research Laboratory
Seoul Women Hospital, Incheon, Korea

Objective: To assess the effect and mechanism of endometriosis on IVF outcomes on the basis of the measurement of several cytokines in follicular fluid (FF) in stimulated cycles undergoing IVF.

Materials and Mechanisms: The study group included 21 women with infertility who had endometriosis diagnosed at laparoscopy. A control group consisted of 28 women undergoing IVF because of tubal facor or male factor. FF was obtained from patients. FF measurements of estradiol, progesterone, interleukin (IL)-1β, IL-6, and vascular endothelial growth factor (VEGF) were performed. Results were compared between patients with endometriosis and controls.

Results: Levels of progesterones in the FF significantly decreased (291.46±6.44/294.90±8.46 ng/ml, p=0.036) but IL-1β levels in FF were significantly increased (4.82±1.24/4.27±1.25 pg/ml p=0.038) in patients with endometriosis. Estradiol, IL-6, VEGF levels did not show significant changes. The number of retrieved oocytes were significantly decreased (8.95±8.07/12.5±8.07, p=0.049) in patients with endometriosis.

Conclusions: The data demonstrate that cytokines are regulated differently in patients with endometriosis, who have increased IL-1β production, and suggest that fine hormonal modulation of this cytokines occurs at the local (ovarian) levels and may be related to their low response in IVF cycles.