

cross-sectional view of the ovary. Correlations were analyzed between AFC, MOA, and COH outcomes. Then, we divided the subjects into three groups with cut-off of lower and upper quartile values of AFC and MOA. Data were analyzed and compared between the groups.

**Results:** Significant positive correlation was observed between AFC and MOA ( $r=0.414$ ,  $p=0.003$ ). Both AFC and MOA correlated significantly with estradiol concentrations on hCG day, the number of follicles on hCG day, the number of oocytes retrieved, total cumulative embryo score (CES), and CES per transferred embryo. Lower AFC and MOA associated with higher cancellation rates, while higher AFC and MOA associated with higher clinical pregnancy rates.

**Conclusions:** The results of the present study suggest that both AFC and MOA could be useful markers to predict ovarian response to COH and outcomes of IVF-ET. It seems that we could use MOA with AFC in practice for the prediction of ovarian response and treatment outcome.

## P-28      과배란 유도 및 인공수정의 시술 시 Aromatase Inhibitor(AI)+Gonadotropin 병합요법과 Clomiphene(CC)+Gonadotropin 병합요법의 비교연구

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**Background & Objectives:** 과배란 유도 (superovulation)와 인공수정 (intrauterine insemination) 시 AI 병합요법과 CC 병합요법의 임상결과의 차이를 평가하여, AI 유용성을 평가해 보고자 하였다.

**Method:** 2003년 8월부터 2005년 12월까지 제일병원 아이소망센타를 방문한 환자들 중 불임기간이 1년 이상이고, 자궁난관조영술에서 적어도 한쪽 나팔관이 개통이 확인되었으며, 남성 정액검사서 정상 또는 경도의 운동성 저하인 환자들을 대상으로 과배란유도 및 인공수정을 시행한 결과들을 후향적으로 분석하였다. AI group (group A, n=36 cycles) Letrozole 2.5 mg (Femara; Novartis, East Hanover, NJ)를 생리시작 2~3일째부터 5일간 투여 후 7~8일째부터 gonadotropin을 투여하였고, CC group (group B, n=41 cycles)은 Clomiphene citrate 50~100 mg/day를 생리시작 2~3일째부터 5일간 투여 후 7~8일째부터 gonadotropin을 투여하였고, Control은 gonadotropin 단독 투여군으로 (group C, n=85 cycles) gonadotropin 75~150 IU을 생리 2~3일째부터 투여하였다.

**Results:** Group A, B, C 세 그룹간의 평균연령 (yr) 및 불임기간 (mon), basal FSH (mIU/mL)는 차이가 없었다 ( $30.3 \pm 2.0$  vs.  $31.0 \pm 1.9$  vs.  $30.9 \pm 2.0$ ,  $31.6 \pm 14.9$  vs.  $35.9 \pm 19.4$  vs.  $35.9 \pm 17.6$ ,  $7.7 \pm 3.3$  vs.  $6.6 \pm 3.0$  vs.  $7.6 \pm 2.2$ ). 15 mm 이상의 난포 수는 group A는  $1.92 \pm 1.25$ 로, group B의  $2.85 \pm 1.50$ 보다 작았으나 유의한 차이는 없었다. hCG 투여일의 자궁내막두께는 각각  $10.08 \pm 2.15$  mm,  $8.34 \pm 2.50$  mm,  $11.45 \pm 3.75$  mm로 group A가 group B에 비해 더 두꺼웠지만 통계적 차이는 없었고, group B가 유의하게 group C보다 얇았다 ( $p < 0.0001$ ). 총 gonadotropin 투여량은 group A는  $783.09 \pm 465.34$  IU, group B는  $676.83 \pm 375.93$  IU

로 차이가 없었다. hCG 투여일의 혈중 에스트라디올 농도는 각각  $461.27 \pm 361.51$  pg/ml,  $900.91 \pm 560.94$  pg/ml,  $1099.55 \pm 791.10$  pg/ml으로 Group A가 Group C보다 유의하게 낮았다 ( $p=0.001$ ). 임신율은 group A는 22.2%로 group B 17.1%와 group C 15.3%보다 높았으나 통계적인 차이는 없었다.

**Conclusions:** 과배란유도 및 인공수정에서 AI 병합요법은 CC 병합요법과 비교하여 임상결과에서 차이를 보이지 않았다. 하지만, 임신율이 높고 gonadotropin 사용량을 줄이고, 자궁내막의 두께가 호전되는 경향을 보이고 있어, CC 병합요법에서 얇은 자궁내막의 소견을 보이는 불임여성의 시술 시 AI 병합요법을 고려해볼 수 있겠다. 하지만, 앞으로 좀 더 많은 환자를 대상으로 하는 연구가 필요하겠다.

## P-29 Factors Predicting Poor Ovarian Response in GnRH Antagonist Protocols: The More Factors, the Worse Outcome

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**Objective:** To evaluate the influence of the number of factors predicting poor ovarian response on IVF outcome in GnRH Antagonist protocols.

**Materials and Methods:** A total of 80 GnRH antagonist cycles which had at least one factor predicting poor ovarian response and did not have polycystic ovary on ultrasonographic examination between January 2003 and August 2006 were included in this study. The following factors were used for predicting poor ovarian response: patient age  $\geq 39$  years, day 3 serum FSH  $\geq 10$  mIU/mL, day 3 serum estradiol  $\geq 70$  pg/mL, serum estradiol on the day of hCG administration  $< 500$  pg/ml, and previous poor ovarian response to ovarian stimulation (the number of oocytes retrieved  $\leq 4$ ). The mean age of the subjects was  $37.8 \pm 4.1$  years (range: 27~46); the mean amount of gonadotropin used was  $2986.7 \pm 929.8$  IU (range: 750~5400); and the mean number of oocytes obtained was  $5.8 \pm 4.0$  (range: 0~16). Embryo transfer was performed in 73 cycles, and clinical pregnancy was confirmed in 9 cycles. Of the 80 cycles, 47 (Group I, 58.75%) had one predicting factor; 33 (Group II, 41.25%) had two or more factors. Statistical analysis was performed using Student's t-test.

**Results:** Significantly fewer oocytes were retrieved when there were more than one predicting factor (Group I,  $7.2 \pm 4.1$ ; II,  $3.8 \pm 2.8$ ,  $p < 0.001$ ). No statistically significant differences were observed in the mean amount of gonadotropins used (Group I,  $2883.5 \pm 969.4$ ; II,  $3138.3 \pm 860.7$  IU) and ultrasonographic endometrial thickness on the day of hCG administration between groups (Group I,  $10.4 \pm 2.1$ ; II,  $10.9 \pm 2.42$  mm). Clinical pregnancy rate in Group I was 10.6%, and in Group II was 12.1%, respectively, which did not have statistically significant difference.

**Conclusions:** A reduced ovarian response may be predicted better when there are more than one factor