

P-38 The Length-effect of Interval between the Consecutive Cycles on the Outcome of in vitro Fertilization and Embryo Transfer (IVF-ET)

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Objectives: To investigate the length-effect of interval between the consecutive cycles on the outcome of in vitro fertilization and embryo transfer (IVF-ET).

Methods: The length of interval between the consecutive cycles (from the former to the later oocyte-aspiration day or from oocyte-aspiration to frozen-thawing ET day) and the outcome of IVF-ET after the interval were checked in the couples who underwent IVF-ET more than one cycle. The following clinical parameters were also checked; age, body mass index (BMI), basal LH, FSH and E2, antral follicle count (AFC), E2 on stimulation day 5, total follicle count on hCG day, endometrial thickness on hCG day, total gonadotropin stimulation days, total number of gonadotropin used, peak E2, total number of retrieved oocytes, cumulative embryo score, number of top quality embryos.

Results: One hundred two cycles of fresh consecutive IVF-ET and thirty three cycles of frozen-thawing ET after IVF were included in this study. In fresh consecutive IVF-ET cycles, no difference was noted in the length of the intervals from the former to the later aspiration of the consecutive cycles between in pregnancy and non-pregnancy groups. After adjusting for age factor, the length of intervals between the consecutive cycles had positive correlations with number of top quality embryos ($r=0.765$, $p=0.008$) and number of grade I or II embryos ($r=0.776$, $p=0.007$), respectively. In the frozen-thawing ET cycles after IVF, pregnancy group had the similar length of intervals from aspiration to frozen-thawing ET compared to the non-pregnancy group.

Conclusion: Although affecting on the quality of embryos in subsequent cycle, the length of intervals between the consecutive fresh IVF-ET cycles could have no correlation with pregnancy outcome.

P-39 Outcomes of Patients with Poor Ovarian Reserve in IVF-ET

정지애 · 권혁찬 · 김정욱 · 이주희 · 정윤진 · 최윤경 · 고현선 · 이승재

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Objectives: 체외수정 및 배란유도 시행 시 난소의 기능 저하로 인해 난포의 성장이 3개 이내로 제한된 환자에서의 임신율은 매우 감소된다. 일반적으로 이러한 현상은 연령이 38~40세 이후에 나타나지만 이 연령 이전에서도 병변 및 난소기능의 감소, 수술 등으로 인해 유발될 수 있다. 본원에서는 이러한 환자에서 체외수정 및 배아이식 시술시 임신 성공률에 미치는 요인을 후향적으로 분석함으로써 시술 전에 예후를 판단하는데 도움을 주고자 본 연구를 실시했다.

Methods: 2006년 1월부터 2007년 9월 까지 본원에서 체외수정 및 배아이식을 실시한 환자 1845주기를 대상으로 본 연구를 시행하였다. 난자 채취 시 채취된 난자가 3개 이하인 216주기를 대상으로 난자상태, 수정율, 임신율 등을 비교 분석하였다.

Results: 전체적으로는 평균연령은 34.8 ± 3.9 세, 채취된 난자 수는 11.31 ± 7.7 개, 양질의 난자 수는 9.75 ± 6.71 개, 이식배아수는 3.84 ± 1.59 개, 이식당 임신율은 35%였으며 216주기에서 획득 난자의 수가 3개 미만이었다. 획득 난자 수가 3개 미만인 주기에서 40세 미만 (155주기)과 40세 이상 (61주기)을 비교한 결과 채취된 난자 수와 이식 배아 수에서는 차이가 없었으나 (2.1 ± 0.8 Vs. 1.8 ± 0.9 , 1.6 ± 0.7 Vs. 1.5 ± 0.7 , $p=ns$) 임상적 임신율은 19.4%와 6.6%로써 통계적으로 유의하게 ($p=0.02$) 차이가 있었다. 또한 minimal stimulation 및 FSHrec/GnRH antagonist의 배란유도에 따른 임신율도 양군 모두 통계적으로 차이가 없었다.

Conclusion: 결론적으로 난소의 기능이 저하된 환자의 체외수정 및 배아이식술은 40세 미만에서는 배란유도 방법에 관계없이 적절한 임신율을 기대할 수 있으나 40세 이상의 환자에서는 임신율이 저조하여 배란유도 방법을 포함한 다양한 보완 및 대체적 방법을 개발하는 것이 필요하다고 하겠다.

P-40 Comparison of Clinical Outcomes between Conventional in vitro Fertilization (IVF) and Intracytoplasmic Sperm Injection (ICSI) in ART Cycles with Low Number of Retrieved Oocytes

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Objectives: ICSI was initially developed to treat male infertility for fertilization and has significantly improved success rates of ART with male infertility. Recently its application has been expanded to the cases of unexplained infertility, poor fertilization and low egg number without comprehensible evidence to support its use. The aim of this study was to investigate whether, in cases of low oocyte number with normal semen parameters, the efficacy of ICSI is better than that of conventional IVF with respect to the rates of fertilization and pregnancy outcomes.

Methods: In total 288 cycles, number of retrieved oocytes was under five and semen analysis was normal parameters - CSI was performed in 229 cycles and conventional IVF was performed in 59 cycles. All female partners were less than 38 years old. The rates of matured oocyte, fertilization, good embryo, clinical pregnancy, implantation, and delivery were compared. Total fertilization failure was evaluated to examine whether there is an increased risk of cancellation rate of embryo transfer in conventional IVF. Chi square test and t-test were used for statistical analysis. P values < 0.05 were considered significant.

Results: There were no significant differences between two groups in mean age of female partner, oocyte maturation rate, fertilization rate, good embryo rate, and mean number of transferred embryos. Cancellation rate of embryo transfer due to total fertilization failure was similar between two groups (9.1% for IVF vs. 11.3% for ICSI). Consequently, there were no differences in implantation and pregnancy outcomes. In fact, clinical pregnancy and implantation rates were slightly higher in conventional IVF group (28.0% and 18.6%) than that of ICSI group (23.9% and 16.8%), respectively.

Conclusion: Our results suggest that conventional IVF is as efficient as ICSI in all aspects of clinical outcomes of ART cycles with low number of retrieved oocytes and normal semen parameters.