P-22 Adverse Effects of Superovulation on Female Reproduction in Mice

Heekyung Hwang[1], Ja Young Maeng[1], Ji Na Lee[1], Jinhee Lee[1], Sung Eun Lee[1,2], Kyowan Choi[2], Yong-Pil Cheon[1]

[1]Department of Biology, Sungshin Women's University, [2]MD Plus LSI

Background & Objectives: Superovulation-induced females have significantly fewer pups born in each litter and a higher mortality rate of pups than those born to normal pregnant female. It is delicate and is respected to be involved many factors, but the factors are not enough to understand the superovulation effects on reproduction. In here we studied why the reduced litters in the superovulation-induced mice.

Method: Superovulation was induced by a single injection of 5 IU pregnant mare's serum gonadotropin (eCG, i.p.) followed 48 hr later by 5 IU human chorionic gonadotropin (hCG, i.p.). 2-cell embryos were collected from natural or superovulation-induced mice, and cultured for 160 hr. Estrus cycle was check with vaginal smearing. The number of corpus luteum and implantation sites were counted by the time schedule.

Results: Superovulated oocytes and embryos had the developmental potency during culture like the oocytes and embryos which were naturally ovulated and fertilized at the estrus stage. The number of decidualization-induced sites were reduced from the average number of embryos which can get superovulation. CD-1 females induced superovulation showed statistically significant decrease in the number of live pups compared with the control. The ratio between leukocytes and epithelial cells was maintained until delivery like in the normal pregnant mice. The number of corpus luteum different from the ovulated numbers.

Conclusions: It is suggested that ovarian factor in steroid genesis may one of the main reasons to alert the ovaian functions and uterine functions. We conclude that the ovarian factors are essential for fertility, with a crucial role in ovulation and a secondary role in the maintenance of pregnancy.

P-23 Defects of Spermatogenesis affect on Pregnancy and Delivery Outcomes in Human IVF-ET Program

SH Lee[1], SJ Choi[1], YS Park[1], IO Song[2], MK koong[2], JH Jun[1]

[1]Cheil General Hospital, Lab. of Reproductive Biology & Infertility, Seoul, Korea,
[2]Sungkyunkwan University School of Medicine Cheil General Hospital,
Department OB/GYN, Seoul, Korea

Background & Objectives: Paternal effects have been shown on fertilization rate, the speed of embryonic cleavage, embryo morphology, and implantation rates after embryo transfer in convention IVF and intracytoplamic sperm injection (ICSI). The aim of this study was to find out whether the sperm from defective