mean numbers of penetrated sperm in each oocytes. There were no significant differences in the early development of oocytes between EtOH stimulation before IVF of oocytes and common IVF oocytes. These results suggest that the exposure of porcine oocytes to an EtOH stimulation before common IVF might be associated with late sperm penetration to induce cortical reaction completely, which might reduce the mean number of penetrated spermatozoa in each oocytes.

P-30

Comparative Aspects of Immature Human Oocytes Derived from Stimulated and Unstimulated Ovaries

Infertility Medical Center, CHA General Hospital, Seoul, Korea

Ri-Cheng Chian, Hyung-Min Chung, Sung-Eun Park, Joon-Gyo Lim, Jung-Jae Ko, Tae-Ki Yoon, Kwang-Yul Cha

It is not clear how is the time course of GVBD and maturation when the GV-stage oocytes derived from stimulated and unstimulated ovaries. It is also nuclear how is different in fertilization and early development between the immature human oocytes derived from stimulated and unstimulated cycles. The purpose of the present study was to compare the time course of oocyte maturation and the capacity of fertilization and cleavage with the immature human oocytes retrieved from stimulated and unstimulated ovaries. Immature GV-stage oocytes were obtained from 35 women in IVF-ET programs. The stimulation protocol for these patients was GnRH agonist with FSH/hMG. Immature GV-stage oocytes were collected from unstimulated ovaries of 12 consented donors. Oocytes were matured in TCM-199 supplemented 20% fetal bovine serum, 10 IU/ml PMSG, 10 IU/ml hCG and 0.2 mM pyruvate. One to three oocytes were cultured in 2 ml of maturation medium in the two well organ culture dish at 37 ℃ in an atmosphere of 5% CO_2 in air. For time course of oocyte GVBD and nuclear maturation, oocytes were observed 3 h interval under dissecting microscopy in a warm (37℃ 5% CO_2) chamber. For insemination, a male factor caused infertility was excluded from this experiment. GV-stage oocytes from stimulated ovaries were inseminated with fresh husband semen. GV-stage oocytes from unstimulated ovaries were inseminated with donor fresh semen. Fertilization medium was TCM-199+20% follicualr fluid (FF). Oocytes that had been fertilized were identified when two pronuclei were present in the cytoplasm. Following observation, the oocytes were transferred into TCM-199+20% FF for further developmental culture. At 48 h after insemina- tion, the oocytes were observed for cleavage. The results of the present study indicated that the time course of GVBD and maturation were different between the oocytes retrieved from stimulated and unstimulated ovaries. Most of oocytes matured to M-II stage were at 30 h after culture in vitro in the oocytes derived from stimulated ovaries and were at 45 h after culture in vitro in the oocytes derived from unstimulated ovaries. However, there was no significant difference in maturation rate between the two groups (75.0% vs 77.5%). The fertilization rate were significant difference between the oocytes retrieved from stimulated and unstimulated ovaries respectively (54.6% vs 92.6%; $P<0.01$). However, the cleavage rates were not different between the two groups (83.3% vs 88.0%). These results suggest that low fertilization rate with stimulated oocytes may be due to the altered characteristics of the zona pellucida.

P-31

한국인 스와이어 증후군 환자 및 가계 구성원의 SRY 유전자 변이의 양상