TaqMan SNP genotyping assays. Also, we used HapAnalyzer for association studies.

Results: 8 analyzed SNPs of INSR in this report including +109482 A>G, +109665 C>T, +125498 A>G, +127527 G>A, +143485 G>C, +161822 G>A, +168606 C>T and +168828 T>A are not associated with PCOS in a Korean population due to the fact that they had similar frequencies of three genotypes between PCOS and control groups. And the frequency of minor allele for +176477 C>T in INSR was significantly higher in control group than in the patient group.

Conclusions: In this study, we identified a novel SNP in INSR gene (+176477 C>T), which shows the significant association with PCOS. The frequency of this minor allele was much higher in a control group than in the PCOS patient group at a significant level (p=0.0401). From this result, we suggest that the minor allele T in +176477 C>T of INSR gene may have a protective effect in pathogenesis of PCOS in a Korean population.

P-4 Effects of Media on Blastocyst Quality and Pregnancy Rate in Mouse and Human

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Background & Objectives: The aim of this study was to investigate the effects of two different media on blastulation, blastocyst quality and pregnancy rate in both mouse and human.

Method: In mouse, total of 376 two cell embryos were retrieved from ICR female mice (3~4 weeks old) at 48 h after 5 IU hCG injection (mated just after hCG injection) and cultured in TCM (n=138) and MEM (n=138) respectively. The blastocysts were graded from zona-intact (ZiB) to zona-escape (hatching and hatched, ZeB) at 72 h after culture. Total TE and ICM cell numbers of blastocysts were analyzed after differential staining. In human, total of 49 couples (TCM or MEM in sibling: n=10; TCM: n=20; MEM: n=19) were included in this study. Developmental capacity of oocytes was evaluated with the sibling oocytes of same patients cultured in TCM or MEM. Clinical pregnancy rate was evaluated with the transferred blastocysts of different patients cultured in TCM or MEM. Blastocysts were graded (BG1, BG2, BG3 and early) on day 5~7, and transferred (n=2~4) on day 5. Statistical analysis was performed using χ^2 and Student's t-test and considered statistically significant when p-value was < 0.05.

Results: In mouse, blastulation rate (BR) and ZiB rate in MEM (66.7% and 33.3%) were significantly higher ($p<0.05$) than those in TCM (59.4% and 25.4%). No difference was found in ZeB rate between MEM and TCM (32.6% and 34.1%). Total of 160 blastocysts (TCM: n=79; MEM: n=81) were stained. Mean cell number of blastocysts was significantly higher ($p<0.01$) in TCM (70.0) than that in MEM (57.8). Differential staining was successfully performed in 70 blastocysts (TCM: n=37; MEM: n=33). The percentage of ICM was significantly higher ($p<0.05$) in MEM than that in TCM (20.6% vs. 16.9%). However, the ICM: TE ratio was significantly higher ($p<0.05$) in TCM than that in MEM (1:4.92 vs. 1:3.86). In human, there were no statistically significant differences in the rate of fertilization, cleavage and total

blastulation between TCM (86.0%, 81.7% and 51.6%) and MEM (89.2%, 82.8% and 53.8%). But, BG1 and BG2 rate were significantly higher ($p<0.05$) in MEM (23.7% and 17.2%) than those in TCM (12.9% and 4.3%). Rate of clinical and singleton pregnancy and implantation were significantly higher ($p<0.05$) in MEM (57.9%, 47.4% and 22.0%) than those in TCM (30.0, 20.0 and 12.5%). However, there was no significant difference in twin pregnancy rate between TCM (10.0%) and MEM (10.5%).

Conclusions: MEM shows increased developmental capacity of oocytes and pregnancy rate of blastocysts compared to TCM in both mouse and human.

P-5 Administration Duration Dependent Effects of Morindae Radix Extract Solution on the Reproductive Capacities in the Mice

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Background & Objectives: These studies were undertaken to evaluate the effects of the different administration duration of Morindae Radix extract solution on the spermatogenic abilities such as concentration, motility and morphological normality of sperm from the testis and the activities of sperm hyaluronidase.

Method: We used the 8-week-old ICR mice and administered 0.3 mg/g extract solution of Morindae Radix once a day for 30, 60, 90 and 120 days. The control group was administered the normal saline in the same way and duration. We examined the number of total, motile and normal sperm from the cauda epididymis. And we compared the testicular tissue especially seminiferous tubules between control and treated groups by histochemical methods. At the end we observed the difference of sperm hyaluronidase activities between control and treated groups.

Results: The significant administration duraiton-dependent differences were observed in the concentration of total sperm, the motility and normality of spermatozoa of the Morindae Radix extract solution administered groups compared to the control group, respectively. In the histological analysis of the testicular tissues, the enlargement of testicular lobe diameter and apparent vasculogenesis between testicular lobes were observed in the Morindae Radix extract solution administered groups compared to the control group, respectively. Also, the activity of hyaluronidase was significantly increased in the Morindae Radix extract solution administered groups compared to the control group.

Conclusions: This study shows that the more beneficial effect has Morindae Radix extract solution on the concentration, motility and morphology of sperm, the testicular tissues and the activities of sperm hyaluronidase, for the more duration the mice administer it. We can suggest that Morindae Radix will be useful for the treatment of male sexual dysfunction and infertility.