P-17 The Association between the T228A Polymorphism in the Exon 7 of the SORBS1 Gene and PCOS in a Korean Population

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Background & Objectives: Patients with polycystic ovary syndrome (PCOS) frequently occur in obesity, type 2 diabetes, glucose tolerance, and insulin resistance. Because the metabolic actions of insulin are damaged in PCOS, candidate genes can be considered in insulin-mediated glucose transport. The sorbin and SH3-domain-containig-1 (SORBS1) gene codes for c-Cbl-associated protein (CAP) involved in insulin-mediated glucose uptake.

Method: To assess the association between the single nucleotide polymorphism of the sorbin and SH3-domain-containig-1 (SORBS1) gene and polycystic ovary syndrome (PCOS) in a Korean population, we carried out genotyping of SNP in exon 7 of SORBS1 gene by RFRP analysis. In this study, 236 Korean patients with PCOS and 66 healthy Korean women were included. HapAnalyzer was used for the association study.

Results: The presence of two fragments, 360 and 158 bp, indicated homozygosity for the G allele. And three bands, 518, 360, and 158 bp, indicated heterozygosity for the A allele or the G allele. After genotyping and association tests, we identified that frequencies of three genotypes were similar between PCOS patient group and control group.

Conclusions: In this study, we analyzed the association between the T228A polymorphism in the exon 7 of the SORBS1 gene and PCOS in a Korean population. From these results, it is suggested that a frequencies of three genotypes in SNP for T228A, which is expressed in the exon 7 of the SORBS1 gene, has not any significant association with PCOS in a Korean population.