

OA-D-35

ASSOCIATION OF CDKAL1 rs7756992 A/G HETEROGENOUS GENOTYPE WITH DEVELOPMENT OF GESTATIONAL DIABETES MELLITUS AMONG FILIPINO PREGNANT WOMEN

<https://doi.org/10.15605/jafes.034.02.S53>

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INTRODUCTION

The presence of single nucleotide polymorphisms (SNPs) has been associated with different diseases. Although effects of CDKAL1 on glucose is not yet fully understood, it has been shown to enhance translation of beta cell transcripts, including proinsulin. In this study, We aimed to investigate the possible association between rs7754840 and rs7756992 of the CDKAL1 gene and GDM among Filipino pregnant women.

METHODOLOGY

A total of 193 patients were recruited, of which 102 women had GDM and 91 served as non-GDM controls. Oral glucose tolerance test (OGIT), lipid profile, and glycosylated hemoglobin (HbA1c) were performed. Rs7754840 and rs7756992 polymorphisms were genotyped using TaqMan allelic assays. The genotypic and allelic distributions of each SNP between GDM cases and controls, and the combined effects of alleles for the risk of developing GDM were analyzed.

CONCLUSION

The findings suggest the potential of CDKAL1 gene and rs7756992 polymorphisms as markers for GDM. Association between the CDKAL1 protein and development of GDM should be explored further.

OA-D-36

Pro12Ala POLYMORPHISM IN THE PPARG GENE IS ASSOCIATED WITH GESTATIONAL DIABETES AMONG FILIPINOS: A CROSS-SECTIONAL STUDY

<https://doi.org/10.15605/jafes.034.02.S54>

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INTRODUCTION

In this study, we determined the association between Pro12Ala polymorphism in the PPARG gene with gestational diabetes mellitus (GDM) among Filipinos. The association of the alleles and genotypes of the polymorphism with glycemia and insulin resistance was also determined.

METHODOLOGY

With ethical clearance, approximately 258 pregnant women (86 with GDM and 172 without GDM) were recruited. Whole blood was collected from each and was used for genomic DNA extraction. Laboratory tests such as oral glucose tolerance test, glycosylated hemoglobin (HbA1c), and insulin levels were performed. The extracted genomic DNA sample was subjected to allelic discrimination analysis using the TaqMan assay.

CONCLUSION

Overall, the Pro12Ala polymorphism of the PPARG gene may exhibit a protective role against GDM among selected Filipino women; however, further studies are needed to verify our claims

KEY WORDS

gestational diabetes mellitus, rs1801282, pparg, Filipino