

عنوان مقاله:

Association of SNP rs.2414096 CYP19 gene with polycystic ovarian syndrome in Iranian women

محل انتشار:

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خلاصه مقاله:

Background: Genetic factors are believed to play an important role in the etiology of polycystic ovarian syndrome (PCOS) which is the most common endocrinological disorder of women in their reproductive age. Androgen metabolism is impaired in PCOS and, thus, CYP19 gene which is involved in this pathway can be a candidate gene. Previous studies have shown a relationship between singlenucleotide polymorphism (SNP) of CYP19 in hyperandrogenism and PCOS in some racial groups. Objective: This study was designed to elucidate the role of CYP19 gene in PCOS in Iran. Materials and Methods: In this case-control study, 70 PCOS women and 70 non- PCOS women as normal control were selected. Following the informed consent, 5 ml blood was taken from individuals and subsequently, genomic DNA was extracted by salting out method. Furthermore, a set of polymerase chain reaction restriction fragment length polymorphism (PCR-RFLP) was carried out using specific primers for SNP rs.2414096 followed by enzyme digestion, with HSP92II. Results: Genotype frequencies of SNP rs. 2414096 in PCOS women were as follows: AA (14.4%), AG (44.3%), and GG (41.4%) while in normal group, genotypes were 24.3%, 52.8%, and 22.9%, respectively. Allele frequencies in PCOS group were 49.3% for A and 50.7% for G, whereas normal group had a different percentage of A (36.4%) and G (63.6%). The calculations for both genotypic and allelic frequencies showed statistical significance difference. Conclusion: Variants of SNP rs. 2414096 in CYP19 could play a role in the .development of PCOS in Iranian women

کلمات کلیدی:

Polycystic ovarian syndrome, CYP19, Single nucleotide polymorphism

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