عنوان مقاله:

The Correlation between CYP۴۵۰ Ile۴۶۲Val Polymorphism and Prostate Cancer in a Group of Iranian Men

محل انتشار:

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خلاصه مقاله:

Background: Cytochrome P۴۵۰ plays an important role in pharmaceutical metabolism, steroidal hormones and procarcinogens. CYP۱A۱ is an enzyme, which is very active in the formation of reactive mediators or injurious agents for DNA. The aim of this study is to evaluate the prevalence rate of genetic polymorphism RS ۱۰۴۸۹۴۳ gene CYP۱A۱ in men diagnosed with prostate cancer compared to a control group of healthy men.Methods: This case-control study analysed blood samples from ۷۹ patients with prostate cancer as well as ۷۹ healthy men. Genomic DNA was extracted by the salting out method. After selecting the suitable primers from the papers, the samples were amplified for the considered segment and genotypes of the participants were determined by PCR-RFLP.Results: Individuals with prostate cancer had the following genotypes: AA (۳۱.۶۴%), GG (۵۹.۴۹%) and AG/GA (۸.۸۶%) compared to the control group that had genotypes AA (۵۵.۶۹%), GG (۲۹.۱۱%) and AG/GA (۱۵.۱۸%). According to the Hardy–Weinberg equilibrium, the frequency of allele A was ۳۶.۷% in the cancer group and ۶۳.۲۹% in the control group. The frequency of allele G was ۶۳.۹۲% in the cancer group and ۳۶.۷۰% in the control group. There were meaningful differences in the frequencies of homozygotes GG (P<۰.۰۰۱) and AA (P=۰.۰۰۲) between patients and controls.Conclusion: Polymorphism RS ۱۰۴۸۹۴۳ in gene CYP۱A۱ is related to the risk of developing prostate cancer and it is likely one of the major factors in its occurrence.

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا: