

ASSOCIATION OF MYNN, TERT AND TERC GENE POLYMORPHISMS WITH PROSTATE CANCER IN TURKISH POPULATION

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This study aims to determine whether there is any relationship between prostate cancer development and MYNN rs10936599, TERC rs2293607 and hTERT MNS16A polymorphisms in Turkish population. The research was comprised of 77 individuals with prostate cancer and 116 healthy individuals without history of cancer. Genotyping analysis was performed using polymerase chain reaction (PCR) and restriction fragment length polymorphism (RFLP) methods. The results obtained were evaluated using the chi-square test and unconditional logistic regression analysis. In the study, the GG genotype of TERC rs2293607 polymorphism, the VNTR-243/243 genotype of TERT MNS16A polymorphism, and allele 243 were found to be statistically significant between the patient and control groups ($OR_c = 3.250$, $95\%CI = 1.176-8.980$, $p_c = 0.023$; $OR_c = 3.09$, $95\%CI = 1.238-7.717$, $p_c = 0.016$; $OR = 0.638$, $95\%CI = 0.416-0.978$, $p = 0.038$). On the other hand, there was no significant relationship between MYNN rs10936599 polymorphism and prostate cancer in Turkish population. In conclusion, the obtained data show that the TERC rs2293607 and TERT MNS16A VNTR-243/243 polymorphisms might be potential risk factors for the development of prostate cancer in Turkish population and might be suggested as prognostic markers.

Key words: MYNN, TERT, TERC, prostate cancer, Turkish population.

АСОЦІАЦІЯ ПОЛІМОРФІЗМУ ГЕНІВ MYNN, TERT ТА TERC З РАКОМ ПРОСТАТИ СЕРЕД НАСЕЛЕННЯ ТУРЕЧЧИНИ

Мета цього дослідження полягала у визначенні можливого зв'язку між розвитком раку простати і поліморфізмом MYNN rs10936599, TERC rs2293607 та hTERT MNS16A серед населення Туреччини. Учасниками дослідження були 77 осіб з раком простати і 116 здорових добровольців без раку в анам-

незі. Генотипування проводили за допомогою полімеразно-ланцюгової реакції (ПЛР) та поліморфізму довжин рестрикційних фрагментів (ПДРФ). Оцінку отриманих результатів проводили за допомогою критерія хі-квадрат та безумовного логістичного регресивного аналізу. Під час дослідження було виявлено, що генотип GG поліморфізму TERC rs2293607, генотип VNTR-243/243 поліморфізму TERT MNS16A та алель 243 є статистично значимими для груп пацієнтів та контролю ($OR_c = 3,250$, $95\%CI = 1,176-8,980$, $p_c = 0,023$; $OR_c = 3,09$, $95\%CI = 1,238-7,717$, $p_c = 0,016$; $OR = 0,638$, $95\%CI = 0,416-0,978$, $p = 0,038$). З іншого боку, не було виявлено суттєвого зв'язку між поліморфізмом MYNN rs109365999 та раком простати серед населення Туреччини. Отже, отримані дані свідчать про те, що поліморфізми TERC rs2293607 та TERT MNS16A VNTR-243/243 можуть бути потенційними факторами ризику розвитку раку простати серед населення Туреччини і можуть вважатися прогностичними маркерами.

Ключові слова: MYNN, TERT, TERC, рак простати, населення Туреччини.

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