عنوان مقاله:

Evaluation of the percentage of rs9561778 polymorphism of ABCC4 gene in Iranian population in breast cancer

محل انتشار:

دوازدهمین کنگره بین المللی سرطان پستان (سال: 1394)

تعداد صفحات اصل مقاله: 1

نویسندگان:

Niloufar Rashedi - *PHD student of molecular genetics,Islamic Azad University,shahrekord branch, Iran*

Golnaz Asaadi tehrani - *Molecular Genetics Ph.D, Assistant Professor ,Department of Genetics, Faculty of Basic Sciences, Islamic Azad University,Zanjan Branch, Zanjan, Iran*

Massoud Houshmand - *Medical Genetics Department,National Institute for Genetic Engineering and Biotechnology,Tehran,Iran*

خلاصه مقاله:

Introduction & Aim: Pharmacogenetics is the study of inherited differences in response to drug among different people.rs9561778 polymorphism of ABCC4 gene is significantly in association with chemotherapy-induced effects. Patients with hetrozygous or homozygous mutants for this polymorphism are at the risk of cyclophosphamide toxicity.this study showed a little the high prevalence of rs9561778 hetrozygous form in different ethnic groups of iran. Our purpose is evaluation of rs9561778 polymorphismfrequency among 300 iranian people with different ethnicities in order to use appropriate doses of cyclophosphamide by using pharmacogenetic tests. Methods: blood sample of 300 healthy people with different ethnicities include persian,azeri,kurd,baluch ,mazen and gilak were collected. After DNA extraction the polymorphism in the gene was analyzed using techniques:Tetra-ARMS PCR and sequencing Results: In this study, the frequencies of T allele which involves in drug toxicity were also reported asfollowes: Persian %27,Azeri %22,mazens%18,baluchis%14,Gilakis %12 and Kurd%11. According to this study there is a significant relationship (P<0/05,P<0/001)between genotype and allelic frequencies in Iranian population and cyclophosphamide administration. Thus, according to this information, the presence of these genotypes and T allele should be analysed before administering cyclophosphamide using pharmacogenetic tests in Iranian breast cancer patients as well as other asian countries in order to reduce standard dose of the drug or use alternative drugs in the presence of T-allele. Conclusion: according to studies, Its found that the presence of the mutant allele(T/T) in rs9561778 polymorphic region of ABCC4 gene, results in reduced activity of ATP binding cassette (ABC) and causes toxic effects of cyclophosphamide in carriers of the T allele

کلمات کلیدی: