Mavlyanova Shakhnoza Zakirovna et al., J Mol Genet Med 2019, Volume 13
DOI: 10.4172/1747-0862-C1-036

The role of the polymorphic variant of the *IIe 105Val* genes of the *GSTP1* in the mechanism of the development of allergic skin diseases in Uzbekistan

Mavlyanova Shakhnoza Zakirovna and Alimova S M
Ministry of Health of the Republic of Uzbekistan, Uzbekistan

Aim: It is the study of polymorphism of genes of enzymes of biotransformation of xenobiotics in patients with allergic skin diseases.

Material & Methods: Patients with allergic dermatoses (AlD), DNA samples of patients and healthy donors, glutathione-transferase *GSTM1* (1p13.3), *GSTT1* (22q11.2) and *IIe 105Val* genes of the *GSTP1* gene were the object and subject of the study. The study included 88 patients with AlD age ranging from 5 to 67 years. Of these, 41 are women, 50 are men. The diagnosis in all patients is confirmed by the results of the clinical examination and laboratory tests.

Results: Among patients with allergic dermatoses, individuals with combined functionally inferior genotypes *GSTM10/0+GSTT10/0* were more common than in the group of healthy individuals (6.8% vs. 4.1%, respectively, $\chi2=0.5$; P=0.4; OR=1.7, 95% CI 0.405-6.979). The obtained data indicate that in individuals with zero genotypes of genes of xenobiotic enzymes GSTM1 and GSTT1 there is a tendency to the risk of allergic dermatosis development. Whereas, with the combined variants of zero and functional genotypes of polymorphism of the *GSTM1* and *GSTT1* genes, there were no statistically significant differences between the groups studied (p>0.05). While the frequency distribution of the occurrence of alleles and genotypes of *GSTP1* in the group of patients with allergodermatosis, in comparison with the control group, significant differences were found. The functionally unfavorable allele G of the *GSTP1* gene was 3.4 times statistically significantly more prevalent in the studied chromosomes of allergic dermatoses than in the population sample ($\chi2=10.8$; P<0.05; OR=3.4; 95% CI 1.6-7.4). The associations of functionally unfavorable A/G genotypes were identified ($\chi2=6.9$, P<0.05, OR=2.6, 95% CI 1.264-5.382) and G/G ($\chi2=8.0$; P<0.05; OR=11.2; 95% CI 1.421-88.43) with the development of allergic dermatoses.

Conclusion: Genes of glutathione transferase, polymorphism IIe 105 Val of the GSTP1 gene is the most significant marker of an increased risk of allergic skin diseases in Uzbekistan.

Biography

Mavlyanova Shakhnoza Zakirovna received Doctor of Medical Sciences degree at the Higher Attestation Commission under the Cabinet of Ministers of the Republic of Uzbekistan. She is the Head of the Scientific Department of Dermatology of the Republican Specialized Scientific and Practical Medical Center of Dermatovenereology and Cosmetology, Ministry of Health of the Republic of Uzbekistan. She is a Member of the Association of Dermatovenereologists and Cosmetologists of the Republic of Uzbekistan and the European Academy of Dermatovenerologists. She has published over 300 articles in well-known journals, has 7 patents for inventions, 5 monographs and is also a Member of the Editorial Board of the *Journal of Dermatovenereology and Cosmetology of Uzbekistan.*

shahnoza_m@mail.ru