

Commentary on: Çakir AH, Şimşek F, Açık L, Taşdelen B. Distribution of HumTPOX, HumvWA, HumTH01 alleles in a Turkish Population Sample. *J Forensic Sci* 2001;46(5):1257.

Sir:

In your journal, Vol. 46, No. 5, 2001 issue, in the article under the heading of "Distribution of HumTPOX, HumvWA, HumTH01 Alleles in a Turkish Population Sample," data concerning TPOX, vWA, and TH01 STRs, which were gathered from blood samples of 95 people from the Turkish Marmara region, was quoted. What especially drew our attention and what, as far as can be understood, appears frequently as an issue, is the frequency of 9.3 allele in the TH01 polymorphic system. In the article, while 9.3 allele is reported as 0.026, the frequency of 10 allele is seen as 0.116. As a matter of fact, in the majority of studies carried out across the

world, 9.3 allele is among the most commonly seen alleles and studies undertaken by us on the Turkish population verify this. In the above-mentioned survey, the population examined was from the Marmara region of Turkey and the frequencies in this region cannot be expected to display completely contradictory characteristics to those of the Caucasian population in general. At the most, this error might be a mistake in the evaluation of this data. The usage of the above-mentioned frequencies may be the reason for false calculations or may lead to wrong population genetic comparisons in general.

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Author's Response

Sir:

Observed allele and genotype values for HumTH01 locus were presented in Table 3 (1). These allele frequencies of allele 9.3 and allele 10 are exact results we have found in the population investigated. Analyses in this study were fastidiously carried out by us.

The amplified products were separated in denaturing polyacrylamide gels according to the technical manual and visualized by silver staining. Alleles were determined by comparison with the allelic ladders included in the kits (Promega Corp., Madison, WI) and were designated according to recommendations of the DNA Commission of the ISFG (2). It is also known that the distinction between alleles 10 and 9.3 is not straightforward when using silver staining of amplified STRs (3). But, this problem was solved on a large scale by using the control DNA sample 9.3-9.3

Furthermore, many people have migrated to this region from both inside and outside Turkey in recent years. Therefore, the different population samples collected from this region could show differences in allele frequencies. On the other hand, since the allele frequencies taken into consideration are low, the frequencies calculated from the samples taken from the same population show more changes from sample to sample. Moreover, the distributions of genotype given in the study clarify that there is no mistake in the

calculations of allele frequencies. As a matter of fact, in a recent study of ours in which blood samples of 173 unrelated individuals from the same region (Except Istanbul) were gathered, the frequencies of 10 allele is seen as 0.043, while 9.3 allele is seen as 0.168, (4).

References

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