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Population genetics of nine STR loci in the Turkish population

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The use of polymorphic short tandem repeat (STR) is becoming important in genetic applications, such as gene mapping, identification and paternity. In forensic applications, it is possible to obtain results even though the material is highly degraded and mixed. Because of the advantages of STR analyses, it is increasingly being used in forensic applications.

The purpose of this study is to investigate the population genetics of STR polymorphism. In the research, the allele frequency distribution of nine STR loci, which were D3S1358, vWA, FGA, D8S1179, D21S11, D18S51, D5S818, D13S317 and D7S820, was established using the blood samples of 100 randomly selected individuals. The nine STR loci were amplified and detected by using multiplex PCR with fluorescent-labelled primers.

The frequency distributions of alleles were evaluated by using various statistical methods, such as HWE, polymorphic information content (PC), power discrimination (PD) and probability of exclusion (PE). The allele frequency distributions found in this study were compared with the other allele frequency distributions reported in literature.

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