ALLELE FREQUENCIES OF TWO VNTRs LOCI IN ARGENTINE POPULATION

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Introduction

The microsatellite loci in witch allele variations are caused by tandem repeats, polymorphisms of nucleotide sequences, are a common element of the human genome and a useful tool for identification. The present study provides allele frequencies of 2 loci VNTRs: D2S44 and D4S163, both investigated by RFLP analysis.

Material and methods

177 samples were collected from unrelated Argentine individuals, most of them from Buenos Aires city. DNA was extracted from blood samples by salting out method (Miller & col.), and digested with restriction enzyme HINF I. Then the samples were run in 0.75 % agarose gel with 1 X TBE buffer for digestion control. The electrophoresis of digested DNA was perfomed in 0.75 % agarose gel with 1 X TBE buffer for 18 hours at 55 volts. DNA analysis ladder GIBCO BRL was used as weight marker with MW 100 probe to hybridizate it. After that DNA was transferred to nylon membrane and hybridizated with specific probes for the studied locus. The bands were detected by Lumiphos 480 and NICE (Non-isotopic chemiluminiscent enhanced probe system - Lifecodes Corporation) and read with a semiauthomatic computer system.

Results

We show population distribution data allele frequencies of the loci: D2S44 and D4S163, and the values of heterocigocity percentage are 96.05 and 92.66 % for each locus. This markers were used with others loci: D7S22, D7S21, D12S11 and D16S309 with heterocigocity percentages of: 99,76; 94,79; 92,18 and 93.15% for each of them.

Conclusions

The polymorphism of these genetic markers and their high values of heterocigocity confirm the importance of the use of them as a tool to exclude or assign biological relationships and lineage reconstruction.