

A Comparative Study of CYP3A4 Polymorphisms in Mexican Amerindian and Mestizo Populations

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Key Words

Cytochrome P-450 3A4 _ Genetic polymorphism _ Drug-metabolizing enzymes

Abstract

Cytochrome P-450 3A4 (CYP3A4) contributes to the metabolism of approximately half the drugs in clinical use today. The aim of the present study was to determine the frequency of the *CYP3A4* * 1B, * 2, * 4, * 5, and * 18 alleles amongst both Tepehuan Amerindians, a native group that has inhabited northern Mexico for thousands of years, and Mestizo Mexicans, and to compare the data with those of other populations. Genotyping experiments revealed that 8.8 and 8.0% of the Mestizo and Tepehuano subjects, respectively, carried the *CYP3A4* * 1B allele. Only one Mestizo subject was heterozygous for the *CYP3A4* * 2 variant, while *CYP3A4* * 4, * 5 and * 18 allelic variants were not detected in either group. On the other hand, the frequencies of the *CYP3A4* * 1B variant in Mestizos and Tepehuanos were similar to those reported for Caucasians, but different from those observed for African and Asian populations.