# Lack of Association between CYP2D6 genotypes and Tardive Dyskinesia in Korean Schizophrenics

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The human cytochrome P450 2D6 enzyme is responsible for the metabolism of a diverse group of drugs, including antidepressants and neuroleptics. The goal of this study was to determine the CYP2D6 genotype among a Korean cohort to ascertain the relationship between reduced CYP2D6 activity and the propensity to develop tardive dyskinesia (TD), a movement disorder associated with chronic neuroleptic treatment.

Employing a new CYP450 GeneChip® oligonucleotide microarray, two hundred thirty two schizophrenic patients undergoing neuroleptic treatment and one hundred eighteen control subjects were screened for the presence of seventeen CYP2D6 variant alleles, including CYP2D6*10B, CYP2D6*14 and CYP2D6*18, mutant alleles that have been identified among Asian populations.

This report represents the largest study to date assessing CYP2D6 genotype in relation to TD. CYP2D6 allelic frequencies among Koreans were found to be similar to those of other Asian populations. No statistically significant association was observed between CYP2D6 genotype and the incidence of schizophrenia. Similarly, the incidence of tardive dyskinesia was found to segregate independently of CYP2D6 genotype.

These findings suggest that the reduced enzyme activity of CYP2D6 among Korean schizophrenics does not confer susceptibility to TD and that Korean patients harboring the CYP2D6*10B allele are not at increased risk for developing antipsychotic induced tardive dyskinesia.