

## Primary open angle glaucoma was not found to be associated with *p53* codon 72 polymorphism in a Brazilian cohort

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**ABSTRACT.** Primary open angle glaucoma (POAG) is the most common type of glaucoma. The *p53* codon 72 Arg-Pro (CGC to CCC) polymorphism of exon 4 affects various biological properties; recently, it was reported that this polymorphism affects the ability to induce apoptosis *in vitro*. Various genotypes have been found to be significantly associated with POAG. We examined the distribution of this polymorphism in 104 unrelated POAG patients and in 58 normal healthy individuals without history of POAG at the Pronto Clínica de Olhos in Goiânia, Brazil. The controls were recruited among individuals undergoing ophthalmological examination. Their genomic DNA was analyzed for *p53* gene codon 72 polymorphism by polymerase chain reaction. The Arg72 allele was more common than the Pro72 allele in both groups. There was no significant difference in the distribution of the codon 72 polymorphism between groups ( $P = 0.3311$ ). The genotype distribution in the POAG group was 23.07 Arg homozygote, 75 heterozygote, and 1.93% Pro homozygote, while in the control group it was 31.04 Arg homozygote, 68.96 heterozygote,

and 0% Pro homozygote. We concluded that the *p53* codon 72 Arg/Pro polymorphism is not associated with glaucoma in Brazilian patients.

**Key words:** Primary open angle glaucoma;  
*p53* codon 72 polymorphism