



Pterygium in patients from Goiânia, Goiás, Brazil

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Genet. Mol. Res. 14 (2): 6182-6188 (2015)

Received August 12, 2014

Accepted February 5, 2015

Published June 9, 2015

DOI <http://dx.doi.org/10.4238/2015.June.9.4>

ABSTRACT. Pterygium is an inflammatory and degenerative ocular surface disease in which the conjunctiva on the cornea grows to form a fibrous tissue in the shape of a triangle. The disorder may be characterized by cell proliferation, inflammatory processes, fibrosis, angiogenesis, and destruction of the extracellular matrix. The anomaly is considered a degenerative eye disease and is erroneously confused with cataract. It displays similar features to those of tumors, such as local invasion, metaplasia of epithelial cells, presence of oncogenic viruses (human papilloma virus), inactivation of tumor suppressor genes (e.g., p53), and loss of heterozygosity. The treatment of pterygium is based on factors such as the evolution and progression of the disease, risk factors, symptoms, and patient age. Considerations about the best technique for the surgical removal of pterygium remain controversial, and complications and recurrence are very common. The development of new surgical techniques and adjuvant drugs is thus necessary. This study aims to analyze and compare the frequency of the *GSTT1* genotypes in relation to pterygium through statistical analyzes

in order to build a genotypic profile for the Replicon patients. The genotypic profile of the *GSTT1*-null polymorphism in Goiânia showed no significant difference when the frequency of the null genotype was compared between the control and experimental groups. The null genotype was more frequent in the population studied. Furthermore, the *GSTT1* genotype was not related to the analyzed risk factors for pterygium, namely gender, ethnicity, family history, occupational exposure, smoking, hypertension, and diabetes.

Key words: *GSTT1*; Pterygium; Polymorphism; Neoplasia