2009 Research Days Abstract Form – Department of Ophthalmology – UNIFESP/EPM

2. SCIENTIFIC SECTION PREFERENCE (REQUIRED):

Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.

3. PRESENTATION PREFERENCE (REQUIRED) Check one:

☐ Paper
☐ Poster
☐x FAST Paper

4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee"
Patricia Rusa Pereira Odashiro
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Scientific Section Descriptions (two-letter code):

(BE) OCULAR BIOENGINEERING
(CO) CORNEA AND EXTERNAL DISEASE
(CA) CATARACT
(EF) ELECTROPHYSIOLOGY
(EP) EPIDEMIOLOGY
(EX) EXPERIMENTAL SURGERY
(GL) GLAUCOMA
(LA) LABORATORY
(LS) LACRIMAL SYSTEM
(LV) LOW VISION
(NO) NEURO-OPHTHALMOLOGY
(OR) ORBIT
(PL) OCULAR PLASTIC SURGERY
(PH) PHARMACOLOGY
(RE) RETINA AND VITREOUS
(RS) REFRACTIVE SURGERY
(RX) REFRACTION-CONTACT LENSES
(ST) STRABISMUS
(TR) TRAUMA
(TU) TUMORS AND PATHOLOGY
(UV) UVEITIS
(US) OCULAR ULTRASOUND

Deadline: Oct 12, 2009

FORMAT:
Abstract should contain:
Title
Author, Co-authors (maximum 6), Purpose, Methods, Results, Conclusion.

Poster guidelines:
ARVO Abstract Book (1.10 x 1.70m)

34. FIRST (PRESENTING) AUTHOR (REQUIRED):
Must be the author listed first in abstract body.

( ) R1 ( ) R2 ( ) R3 ( ) PIBIC
(x) PG0 ( ) PG1 ( ) Fellow ( ) Technician

Last Name: Odashiro
First Name: Patricia
Middle: Rusa Pereira

Service (Sector): TU

CEP Number: Not required

5. ABSTRACT (REQUIRED):

Title: **EXPRESSION OF HIF-1-ALFA IN COX-2 UVEAL MELANOMA ANIMAL MODEL**

Author and Co-authors (maximum 6) Patricia Rusa Pereira Odashiro, Alexandre Nakao Odashiro, Sebastian Di Cesari, Emilia Antecka, Danilo Nakao Odashiro, Miguel N Burnier Jr

Purpose The expression of cyclooxygenase-2 (COX-2) has been reported as an indicator of poor prognosis in Uveal Melanoma (UM). The Henry C Witelson Ocular Pathology Laboratory has previously described an animal model of UM that was treated with COX-2 inhibitor. The control group developed more intraocular tumors and presented with metastasis and higher detectable levels of circulating malignant cells before the treated group. The role of COX-2 in UM has not been entirely elucidated. Exposure to hypoxia increases migration, invasion and adhesion of UM cells in vitro. The "silencing" of Hipoxia inducible factor-1 (HIF-1)-alfa resulted in marked decrease of cell migration, invasion and adhesion of UM cells. The aim of this study is to demonstrate the expression of HIF-1-alfa in tumors treated with COX-2 in a UM animal model.
Methods Paraffin blocks from intraocular UM of the COX-2 inhibitor rabbit animal model from the Henry C Witelson were selected. The selection criterion was the presence of tumoral tissue on the paraffin blocks. Four intraocular tumors from the treated group and 7 from the control group were included in the experiment. Slides from all the selected blocks were immunostained for HIF-1-alfa protein in the automated Ventana machine according to an established protocol. The slides were analyzed in a blind manner by an ocular pathologist and classified in 0, +, ++ or +++ according to the intensity and percentage of positive cells of each slide.
Results In the control group, 6 (85.7%) tumors presented a score +++ of immunoexpression and 1 (14.3%) presented a score ++. In the treated group, 3 (75%) presented a score + and 1 (25%) presented a score 2. This difference was highly statistically significant (p=0,000216). In the clinical point of view, the control group developed more intraocular tumors and presented with metastasis and higher detectable levels of circulating malignant cells before the treated group. In general, the administration of COX-2 inhibitors delayed the progression of UM in animal model.
Conclusion UM treated with COX-2 expressed less HIF-1-alfa than the non-treated group in the animal model. This result suggest that the effect of COX-2 inhibitors in UM can be related to the reduction of the hypoxia and consequently the expression of HIF-1-alfa.

Keywords Uveal Melanoma, COX-2, HIF-1-alfa