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
- ☐ 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"

_____

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)

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

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

Last Name: Arantes
First Name: Tiago
Middle: Eugênio Faria

Service (Sector): Uveitis and AIDS

CEP Number: 0713/06

5. ABSTRACT (REQUIRED):

Retinal Structural and Functional Evaluation in HIV-Infected Patients Using Optical Coherence Tomography and Frequency Doubling Technology Perimetry

Tiago Eugênio Faria e Arantes, Claudio Renato Garcia, Paulo Augusto de Arruda Mello, Cristina Muccioli

Purpose: To assess retinal nerve fiber layer (RNFL) and macular thickness using optical coherence tomography (OCT) on Human Immunodeficiency Virus (HIV) infected patients without ocular manifestations and to correlate these findings with frequency doubling technology perimetry (FDT).
Methods: 73 patients (146 eyes) with normal ocular exam were classified in 3 groups: group A: HIV-infected patients with CD4 count < 100 cells/mm^3 for at least 6 months; group B: HIV-infected patients with CD4 count > 100 cells/mm^3 since diagnosis and group C: HIV-negative control subjects. Patients were evaluated using Fast RNFL and Fast Macula scan strategies on Stratus OCT and Humphrey Matrix 24-2 full threshold program. For statistical analysis, generalized estimating equations models were employed to account for the dependence between eyes in the same patient.
Results: Group A had significant thinning of average RNFL, temporal outer macula and inferior outer macula thicknesses when compared to groups B and C ($p<0.05$). Statistically significant differences were observed in the FDT MD between groups A and C ($p=0.034$) and in PSD in group A compared to groups B and C ($p=0.011$). Abnormal GHT results were more frequent in eyes from group A ($p=0.004$). Eyes of HIV patients with GHT and PSD results outside normal confidence limits had thinner average RNFL thickness measures than eyes with results within normal limits in the same group of patients ($p<0.05$).
Conclusions: HIV infected patients with low CD4 count have a significant RNFL and macular thinning. Functional loss detected by FDT is related with RNFL thinning in HIV infected patients.

Keywords: HIV; Optic Nerve; Retina; Tomography, Optical Coherence; Perimetry