

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

2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): GL

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'

Daniel Meira Freitas

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 13, 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)

25. FIRST (PRESENTING) AUTHOR (REQUIRED):

Must be the author listed first in abstract body.

- R1 R2 R3 PIBIC
- PG0 PG1 Fellow Technician

Last Name: Meira-Freitas

First Name: Daniel

Middle:

Service (Sector): Glaucoma

CEP Number: 0812/07

5. ABSTRACT (REQUIRED):

Color Doppler Imaging of the Ophthalmic Artery in Patients with Chronic Heart Failure

Daniel Meira-Freitas, Daniela B. Almeida-Freitas, Wagner Iared, Sérgio Ajzen, Luiz Alberto S. Melo Jr., Augusto Paranhos Jr.

Purpose: To evaluate the blood flow of the ophthalmic artery of patients with chronic heart failure (CHF) using color Doppler imaging.

Methods: A cross-sectional comparative study was carried out. Doppler parameters of ophthalmic artery of 18 patients with CHF in different stages of disease (CHF group) were compared with 21 age-matched healthy volunteers (control group). These parameters were also correlated with echocardiographic assessments and clinical cardiologic status.

Results: The average diastolic velocity was 5.14 ± 2.4 cm/s in the CHF group and 7.44 ± 3.5 cm/s in the control group ($p = 0.01$). The resistance index of the ophthalmic artery was 0.76 ± 0.08 in the CHF group and 0.70 ± 0.08 in the control group ($p = 0.031$). There was a negative correlation between the resistance index of the ophthalmic artery and the systemic blood pressure of patients with CHF ($r = -0.47, p = 0.007$). The final diastolic velocity of the ophthalmic artery positively correlated with the systemic blood pressure ($r = 0.44, p = 0.02$).

Conclusion: Lower diastolic velocity and higher resistance index were observed in the ophthalmic artery of CHF patients compared with the control group. The influence of these findings on the structure and function of the optic nerve head merits investigation.

Keywords: Ophthalmic artery, Color Doppler Imaging, Glaucoma, Heart Failure, Ocular Blood Flow