

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'

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)

45. FIRST (PRESENTING) AUTHOR (REQUIRED):

Must be the author listed first in abstract body.

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

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Service (Sector): Centro de Oftalmologia Esportiva – Instituto da Visão

CEP Number:

Title: ASSOCIATION BETWEEN TWO DIFFERENT EXERCISE INTENSITIES AND INTRAOCULAR PRESSURE – PILOT STUDY

Reginaldo Alexandre Rossin; Guilherme Ramos Pinto; Haroldo Leão Marcos; Luis Felipe Milano Teixeira; Antonio Carlos da Silva; Marinho Jorge Scarpi.

Purpose: To verify the association between two different exercise intensities and the intraocular pressure (IOP) variation. **Methods:** An observational study was done on 3 athletes (sample by accessibility) selected according to the following inclusion criteria: i) 10 km runners up to 45' (at least 5 years training); ii) male; iii) aged 23 to 33 years; iv) no physical nor eyeball injury. Association between IOP and two different exercise intensity: PE1 (10% less than ventilatory threshold 1) and PE2 (ventilatory threshold 2). The physical exercise (PE) was performed on a treadmill and IOP was determined by using Perkins tonometer, at first in the absence of physical exercise over the last 24 hours and after each protocol. IOP measures were taken for 18 minutes during the recovery (R0 – immediately after the PE; R1 – 3' later; R2 – 6' later; R3 – 6' later; R4 – 18' later), on a sitting position. **Statistical analysis** was done using ANOVA test and Tukey post-test. **Results:** meaningful reduction of both eyes IOP occurred at the PE1 situation comparing to the PE2 situation at all exercise recovering IOP measures. On the other hand, considering only the exercise intensity a meaningful IOP reduction ($p < 0.05$) was observed at the R3, R6 and R9 moments of PE2: R3 (RE: $14,33 \pm 0,57$ vs. $11,00 \pm 1,73$ / LE: $13,00 \pm 1,73$ vs. $11,00 \pm 1,73$); R6 (RE: $14,33 \pm 0,57$ vs. $11,00 \pm 1,73$) e R9 (RE: $14,33 \pm 0,57$ vs. $10,33 \pm 2,08$ / LE: $13,00 \pm 1,73$ vs. $10,00 \pm 2,00$). **Conclusion:** there was association between IOP and different exercise intensities, after performing the two protocols, the IOP seems to reduce.

Keywords: Intraocular pressure/etiology; Exercise/physiology; Ocular hypotension.