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

2. SCIENTIFIC SECTION PREFERENCE (REQUIRED):

(**CO**)

3. PRESENTATION PREFERENCE (REQUIRED) Check one:
☐ Paper
X 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"

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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 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)

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

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

Last Name: Miura
First Name: Danielle
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Service (Sector): DEOC

CEP Number: 1721/07

5. ABSTRACT (REQUIRED):

Title: Blink Rate Influence Using the "PISC" tool for patients with Evaporative Dry Eye

Author and Co-authors: DL Miura, MD; RM Hazarbassanov, MD; CKN Yamasato, MD; JAP Gomes, MD

Purpose: To evaluate the effectiveness of "PISC" in patients with and without Evaporative Dry Eye (EDE).
Methods: 20 patients with EDE and 20 controls were enrolled in the study. "PISC" is composed by a micro electronic controller circuit and a microprocessor. It has a power key, a frequency controlling crystal and a sensor that emits red and green luminous signs on the same rate as the human blinking frequency (6-7 seconds intervals). A webcam was positioned on front of the patient's face, at 1 meter distance. "PISC" influence was evaluated on two randomized visits, with or without "PISC", divided in two sessions each – with and without air conditioned. The patients were filmed for 10 minutes per session with the request of reading a text. Inclusion criteria: all patients were diagnosed for mild to moderate EDE, or normal. Exclusion criteria: patients with punctual occlusion, active ocular infection or inflammatory disease, history of herpetic keratitis, contact lens use during trial period or any eyelid globe malposition abnormality. Subjects had the following tests performed: Ocular Surface Disease Index (OSDI), patient symptomatology questionnaire, visual acuity (VA), biomicroscopy, Schirmer I test without anesthesia, tear film osmolarity, fluorescein break up time (FBUT) and corneal fluorescein staining, coloration by lissamine green 1% (Oxford grading).
Results: There was statistical increase of blink rate when "PISC" was used with (t test, p=0.0449) and without (t test, p=0.0103) air conditioned for the EDE group. FBUT, fluorescein and lissamine staining did not change for the EDE group in comparison to the control group.
Conclusion: "PISC" Tool causes general increase in the blinking frequency in patients without EDE. We are currently attempting to increase light stimulation frequency from 6-7 seconds to 3-4 seconds for patients with EDE and to use different colors for myopic and hyperopic patients to reduce accommodation tension during the test.
Keywords: PISC, Evaporative Dry Eye