

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. CO

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)

88. FIRST (PRESENTING) AUTHOR (REQUIRED):

Must be the author listed first in abstract body.

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

Last Name: Camargo

First Name: Juliana

Middle: Ferreira

Service (Sector): Cornea and External Disease

CEP Number: 1970/07

Title: Pentacam Evaluation on cornea opacity after cross-linking

Author and Co-authors: Ana Luisa Hofling-Lima, Cláudio Lottenberg, Denise de Freitas, Kátia Bottós, Luciene Sousa, Márcia Kurauchi, Marta Sartori, Mauro Campos, Norma Allemann, Patrícia Serapicos, Paulo Schor, Rubens Belfort Jr., Vivian Sakai, Wallace Chamom, Luiz Felipe Brenner.

Introduction: Keratoconus is a common disorder in which the central or paracentral cornea undergoes progressive thinning and bulging, so that the cornea takes a shape of a cone. Nearly all cases are bilateral, but 1 eye may be more severely involved. Clinically the affected eye shows irregular astigmatism and progressive impairment of vision acuity that tends to progress during the adolescent years and into the mid-20 and 30s. The corneal collagen *cross-linking* (CXL) with Riboflavin 0,1% is a new procedure, under study worldwide for its use in reducing progression of mild and moderate progressive keratoconus. For this procedure, an epithelium debridement of the central cornea must be done, and it is the stimulus for the cornea haze, which is the most common side-effect of the CXL. Haze is a stromal opacity that decreases cornea transparency and promotes ocular scattering. On the slit lamp examination haze is estimated as the grade of backscattered light seen and can be classified. **Purpose:** The aim of the present study is to validate the Scheimpflug image (Oculus Pentacam®) score for corneal opacity as a good method to evaluate corneal haze after the CXL. **Method:** Patients included in the CXL Clinical Trial for progressive mild and moderate grades of keratoconus that has been carried on in the Ophthalmology Department of the Federal University of São Paulo were divided in three groups, as follows. In group 1, there were included patients submitted to CXL, which developed stromal haze after one-month follow up. These patients had their baseline Pentacam® image analyzed and compared to the exams after the procedure, in regarding of the corneal opacity score of the Pentacam. In group 2, we included patients that were submitted to CXL but did not developed corneal haze in the follow up. In group 3, there are the patients that were randomized as controls. The grade of corneal opacity shown in Pentacam® was compared in each exam. The Sheimpflug imaging number was used to make the cornea opacities measurements. We selected 6 of the 25 radial cross-sectional images, at 45, 60, 90, 120, 145 and 180 degrees. The statistic confrontation between these tree groups is being made. The pre and post CXL cornea opacity confrontation in the same group will b made with t-test and the cornea opacity confrontation between the three groups will be made with AROUC curl. **Results:** the study is in progress but partial results will be presented in the meeting. **Conclusion:** we hope to find that Pentacam® image can be helpful to detect and follow patients developing cornea opacity after CXL treatment.