2007 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 sullied to review your abstract
GL

3. PRESENTAT ION PREFERENCE (REQUIRED) Check one (1)
(a) Paper
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4. The si gnature 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 Heisinki and the 'UNIFESP Ethical Committee"

Signature of First

Scientific Section Descriptions

(OR) ORBIT
(PL) OCULAR PLASTIC SURGERY
(RE) RETINA AND VITREOUS
(RX) REFRACTION-CONTACT LENSES
(NO) NEURO-OPHTHALMOLOGY
(TU) TUMORS AND PATHOLOGY
(ST) STRABISMUS
(UV) UVEITIS
(LS) LACRIMAL SYSTEM
(LV) LOW VISION
(CO) CORNEA AND EXTERNAL DISEASE
(GL) GLAUCOMA
(RS) REFRACTIVE SURGERY
(CA) CATARACT
(US) OCULAR ULTRASOUND
(TR) TRAUMA
(LA) LABORATORY
(BE) OCULAR BIOENGINEERING
(EP) EPIDEMIOLOGY
(EF) ELECTROPHYSIOLOGY

Deadline: 29/10/2007

FORMAT:
Abstract should contain:
Title, Name of Authors, Name of other authors (maximum 6), Purpose, Methods, Results, Conclusions.
Example: ARVO (1.10 x 1.70)
Abstract Book

1. FIRST (PRESENTING) AUTHOR (REQUIRED)
Must be author listed first in body of abstract

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( ) PG0 ( ) PG1 ( ) Estagiário ( ) Tecnólogo ( ) PIBIC

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Nº CEP 1688/07
(Comitê de Ética em Pesquisa da Universidade Federal de São Paulo–UNIFESP)

5. ABSTRACT (REQUIRED)

Intraocular Pressure, Corneal Thickness, and Corneal Hysteresis in Steinert´s Myotonic Dystrophy

Carlos A.A. Garcia Filho, Tiago S. Prata, Aline K.S. Sousa, Larissa M. Doi, Luiz A.S. Melo Jr.

Purpose
Low intraocular pressure (IOP) is one of the ocular ma nifestations of Steirnert's myotonic dystrophy. The goal of this study was to evaluate the Goldmann and corneal -compensated IOP, corneal central thickness (CCT), and corneal hysteresis in patients with myotonic dystrophy.
Methods
A total of 12 eyes of 6 pa tients with Steirnert's myotonic dystrophy were included in the study group. A total of 12 eyes of 6 age-, race-, and gender-matched healthy volunteers were included in the control group. IOP was measured using Goldmann applanation tonometer (GAT), Dynamic Contour Tonometer (DCT) and Ocular Response Analyzer (ORA) in random order. Central corneal thickness was obtained by ultrasound pachymetry. The corneal hysteresis was obtained by the Ocular Response Analyzer (ORA). Three measurements of each device were taken and the mean measurements were used for the analysis. In light of the multiplicity of tests performed, the significance level was set at 0.01 rather than 0.05.
Results
The mean (standard deviation [SD]) IOP provided by GAT, DCT, and corneal -compensated ORA in the study group was 5.4 (1.4) mmHg, 9.7 (1.5) mmHg, and 10.1 (2.6) mmHg, respectively. The mean (SD) IOP provided by GAT, DCT, and corneal-compensated ORA in the control group was 12.6 (2.9) mmHg, 15.5 (2.7) mmHg, and 15.8 (3.4) mmHg, respectively. The differences in IOP between the study and control groups were statistically significant in the GAT (mean, -7.2 mmHg; 99% confidence interval [CI], -10.5 to -3.9 mmHg; $P<0.001$), DCT (mean, -5.9 mmHg; 99% CI, -8.9 to -2.8 mmHg; $P<0.001$), and corneal-compensated ORA IOP (mean, -5.7 mmHg; 99% CI, -10.4 to -1.0 mmHg; $P=0.003$). The mean (SD) CCT in the study and control groups were, respectively, 542 (31) µm and 537 (11) µm ($P=0.65$). The mean (SD) corneal hysteresis in the study and control groups were, respectively, 11.2 (1.5) mmHg and 9.7 (1.2) mmHg ($P=0.04$).
Conclusions
The patients with Steinert's myotonic dystrophy showed lower Goldmann and corneal -compensated IOP in comparison with healthy individuals. The CCT and corneal hysteresis in this dystrophy w ere within the normal range. These facts imply that the low IOP readings found in the myotonic dystrophy are not related to changes in corneal biomechanical properties.