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

2. SCIENTIFIC SECTION PREFERENCE (REQUIRED):

GL

3. PRESENTATION PREFERENCE (REQUIRED) Check one:

X 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"

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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)

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

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

Last Name: Kanadani
First Name: Fabio
Middle: N

Service (Sector): Glaucoma

CEP Number:

5. ABSTRACT (REQUIRED):

Title: Comparison of Frequency Double Technology and Multifocal Visual Evoked Potentials in Normals, Suspects and Glaucomatous Patients

Author and Co-authors (maximum 6): Kanadani, FN; Greenstein, VC; Ritch, R; Hood, DC; Mello, PAA.

Purpose: To compare subjective and objective tests of visual function in normals, suspects and glaucomatous patients.

Methods: Ninety-five subjects enrolled in a prospective study were evaluated with frequency doubling technology perimetry (FDT) and the multifocal visual evoked potential (mfVEP) technique. The subjects were placed in the following groups based upon the results of standard achromatic perimetry (SAP): 33 eyes were classified as glaucoma suspect (GS) (normal glaucoma hemifield test (GHT) and mean deviation (MD)), 39 eyes as glaucomatous and 23 normals (control group). Eyes with glaucoma had glaucomatous optic neuropathy and abnormal GHTs and MDs on SAP. FDT was performed with the Humphrey Matrix (24-2 program), SAP with the Humphrey Field Analyzer II (24-2 program), and mfVEPs with the VERIS system using a 60 sector pattern-reversal dartboard array. FDT fields were classified as abnormal when the GHT was outside normal limits and there were 3 or more contiguous points in an hemifield of the pattern deviation plot with $p<0.05$. The mfVEP was considered abnormal when the interocular or monocular probability plot had 3 or more contiguous points in a hemifield with $p<0.05$ and at least one of these points had $p<0.01$.

Results: FDT presented an AUC of 0.905 (MD) and 0.721 (PSD), while mfVEP Interocular comparison was 0.716 (signal) and 0.633 (alpha index); Monocular comparison was 0.694 (signal) and 0.618 (alpha index).

Conclusion The FDT showed greater sensitivity and specificity for glaucoma detection in comparison to multifocal visual evoked potentials.

Keywords: Glaucoma; FDT; multifocal VEP