

R1  R2  R3  PG0  PG1  Estagiário  Tecnólogo   
PIBIC Last Name - Pereira First Name - Josenilson Middle - Martins

Service (sector) Electrophysiology N° CEP

## **ROD FUNCTION IN PATIENTS WITH RETINITIS PIGMENTOSA**

J.M.Pereira<sup>1</sup>, P.Y.Sacai<sup>1</sup>, S.R.Salomão<sup>1</sup>, A.Berezovsky<sup>1</sup> - Department Of Ophthalmology, Federal University of São Paulo, São Paulo, SP, Brazil<sup>1</sup>;

Purpose: Retinitis pigmentosa (RP) is a group of inherited progressive retinal dystrophies characterized by night blindness and reduced rod function. The purpose of this study was to evaluate rod function by electrophysiological and psychophysical approaches. Methods: Full-field electroretinogram (ERG) was performed according to ISCEV protocol, and dark adaptometry thresholds using a staircase procedure, in the same visit after 30 minutes of dark adaptation in one eye of 166 patients (76 females and 90 males) previously diagnosed with RP. Age at test ranged from 6.2–78.9 years (mean= 36.3±18.1years). Peak-to-peak amplitude (mV) and b-wave implicit time (ms) were determined for rod response and compared to rod sensitivity threshold (dB) measured by the dark adaptometry test (SST-1 dark adaptometer). Best corrected ETDRS visual acuity (BCVA) was also obtained. Results: Of the 166 patients, 44 (26.5%) had visual acuity 0.3 logMAR or better, 43 (25.9%) had a visual acuity 0.6 to 0.4 logMAR, 17 (10,2%) had a visual acuity of better than 1.0 logMAR, 31 (18.7%) had a visual acuity of 1.0 logMAR or worse and 31 (18.7%) had a visual acuity counting fingers or worse. Rod response from each patient was comparable with dark-adapted final thresholds: 10 patients had a dark adapted threshold (5-10dB) and rod response slightly reduced, 12 had a dark adapted threshold (10-15dB) and rod response moderate reduced and 144 showed severe reduction in the dark adapted threshold (>15dB) and rod response. Any correlation between visual acuity loss and reduction in rod response was not found by electrophysiological and psychophysical approaches. Conclusions: Retinal function assessed by full-field ERG rod response was severely reduced in patients with a severe reduction in dark adaptometry. ERG testing and dark adapted thresholds can be useful to help in determining the progression of the retinitis pigmentosa.

Supported by FAPESP 97/11493-3 to S. R. Salomão