

R1 R2 R3 PG0 PG1 Estagiário Tecnólogo
PIBIC Last Name - Oshima First Name - Akiyoshi Middle -

Service (sector) Electrophysiology N° CEP

**FOCAL MACULAR ELECTRORETINOGRAMS AND VISUAL ACUITY IN
PREDOMINANTLY CLASSIC SUBFOVEAL CHOROIDAL
NEOVASCULARIZATION IN AGE-RELATED MACULAR DEGENERATION
AFTER PHOTODYNAMIC THERAPY (PDT)**

(A. Oshima, A. Berezovsky, P.Y. Sacai, S.R. Salomão, R.A. Costa, M.E. Farah) Department of Ophthalmology, Unifesp-EPM, São Paulo, Brazil.

Purpose. To evaluate the changes in focal macular electroretinograms (fmERGs) and visual acuity after PDT in patients with predominantly classic subfoveal choroidal neovascularization in age-related macular degeneration (ARMD). **Methods.** Twenty-three patients with ARMD (12 males and 11 females) aging from 61 to 85 (74.6 ± 5.1) years had their monocular best corrected visual acuity (BCVA) measured by the ETDRS chart and cone function assessed by fmERGs testing before and 1 year after PDT. A hand-held stimulator-ophthalmoscope for obtaining fmERGs with direct visualization of the fundus was used. Amplitudes and implicit time were compared with 25 normal volunteers (64.9 ± 8.4 yrs) with visual acuity (VA) 20/25 or better.

Results. The mean VA was 1.11 logMAR (20/255 Snellen equivalent) before treatment and 1.10 logMAR (20/250 Snellen equivalent) after one year of PDT. All eyes affected by ARMD showed reduced fmERG amplitudes. FmERGs amplitudes in treated ($172.2 \pm 67.4 \mu\text{V}$) and untreated eyes ($207.2 \pm 74.1 \mu\text{V}$) were statistically reduced ($P < 0.001$) when compared to normal age-adjusted control eyes ($449.5 \pm 135.3 \mu\text{V}$). Amplitudes were comparable before and after PDT. Implicit times were statistically ($P = 0.008$) delayed before ($30.7 \pm 1.62 \text{ms}$) and after PDT ($29.0 \pm 2.29 \text{ms}$) when compared to normal control eyes ($26.4 \pm 1.86 \text{ms}$). However, eyes treated with PDT showed implicit times faster after than before treatment. **Conclusions.** Focal macular electroretinographic abnormalities were found in all patients with ARMD (treated and untreated eyes). Amplitude and visual acuity did not improve after PDT in this small group. Faster implicit times in eyes treated with PDT showed a subtle benefit of this therapy for AMD.