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Post Author Corrections: January 29, 2015

doi: 10.1097/IAE.0000000000000437

Original Study: PDF Only

MULTIFOCAL ELECTRORETINOGRAM IN BIRDSHOT CHORIORETINOPATHY.

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Abstract

Purpose: To characterize multifocal electroretinogram parameters in patients with birdshot chorioretinopathy.

Methods: Twenty-eight patients with birdshot chorioretinopathy consecutively included from 2006 to 2011 were matched to 27 healthy subjects for age, axial length, and lens status. Multifocal electroretinogram was prospectively evaluated using the Vision Monitor system.

Results: Birdshot chorioretinopathy eyes differed significantly from healthy eyes by a decrease in mean root mean square values (-24.7%), P1 (-17.3%) and N2 (-27.5%) amplitude, and the P1/N1 ratio (-26.3%) as well as an increase in N1 (8.7%) and P1 (5.4%) implicit time (IT). An effect of the degree of eccentricity (5 zones) was found for root mean square ($P < 0.001$), P1 ($P < 0.001$) and N2 ($P < 0.001$) amplitude, and P1 IT ($P < 0.001$). Root mean square, the P1/N1 ratio, P1 and N2 amplitudes, P1 and N1 ITs were significantly correlated with visual acuity, mean defect of visual field, foveal threshold, and color vision score. The fluorescein angiographic score was significantly correlated to N1 and N2 amplitudes and N1 IT.

Conclusion: Amplitudes and ITs of the multifocal electroretinogram parameters are impaired in patients with birdshot chorioretinopathy and are well correlated with other anatomical and functional tests. Periodic testing could guide the immunosuppressive treatment.

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