

Deficits in perimetric performance in patients with symptomatic human immunodeficiency virus infection or acquired immunodeficiency syndrome

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Abstract:

PURPOSE: We measured the perimetric performance in patients with either acquired immunodeficiency syndrome (AIDS) or human immunodeficiency virus (HIV) disease but without AIDS. **METHODS:** Light-difference sensitivity in the central field was measured in 74 eyes of 37 patients. The Humphrey Field Analyzer 640, program 30-2 was used. Additionally, 143 eyes of 143 normal control subjects were studied. **RESULTS:** Mean deviation was significantly reduced in patients with HIV disease compared with control subjects (mean +/- S.E.M., -4.30 +/- 0.52 vs -0.77 +/- 0.15, respectively; $P < .0001$). Analysis of subgroups demonstrated that patients with lymphadenopathy syndrome or AIDS-related complex (N = 40 eyes; -3.52 +/- 0.41; $P < .0001$) as well as patients with AIDS (N = 34 eyes; -5.23 +/- 0.97; $P < .0001$) had a reduced mean deviation. Those comparisons remained significant ($P < .0001$) when data were analyzed independently for the right eyes and for the left eyes. Corrected pattern standard deviation (3.15 +/- 0.30 vs 1.39 +/- 0.09; $P < .0001$) was higher in patients with HIV disease compared with control subjects. Again, analysis of subgroups disclosed a significant increase in patients with lymphadenopathy syndrome or AIDS-related complex (2.55 +/- 0.36; $P < .0001$) as well as in patients with AIDS (3.85 +/- 0.51; $P < .0001$). Both comparisons remained significant when data were analyzed independently for the right and left eyes. **CONCLUSIONS:** This study demonstrates visual dysfunction despite normal visual acuity in patients with HIV disease. Our results are consistent with the hypothesis of damage at the neuroretinal level.