3058—11:45

COMPARISON OF SHORT WAVELENGTH AUTOMATED PERIMETRY AND CONVENTIONAL WHITE-ON-WHITE PERIMETRY IN PATIENTS WITH PROGRESSIVE OPTIC DISK CUPPING ((C.A. Girkin, A. Emdadi, P.A. Sample, E.Z. Blumenthal, A.C. Lee, L. M. Zangwill, R. N. Weinreb)) Glaucoma Center and Research Laboratories, University of California, San Diego, La Jolla, CA.

Purpose: This study compared progression on short wave length automated perimetry (SWAP) and standard white-on-white perimetry (SWWP) in eyes with progressive glaucomatous changes of the optic nerve head detected by serial stereophotos. **Methods:** Forty-seven glaucoma patients with at least 2 stereophotos, more than 2 years apart, along with at least one SWWP and one SWAP examination within 6 months of each disk photo in the same eye were recruited. The baseline and follow-up stereophotos were graded and compared for the presence of progression in a masked fashion by two graders. A third experienced grader reviewed the cases of disagreement. Progression in SWWP and SWAP using the Advanced Glaucoma Intervention Study (AGIS) scoring system was compared between eyes with progressive change on stereophotos and those without. **Results:** Twenty-two of 47 eyes were graded as progressed by stereophotos. In the progressed group, SWWP worsened in 7 of 22 patients while SWAP worsened in 12 of 22 patients. There was agreement on progression for 6 patients. In the non-progressed group, neither SWWP nor SWAP progressed. In the progressed group, the mean difference in AGIS score was 4.53 for SWAP and 3.62 for SWWP. There was a statistically significant difference in the mean differences of AGIS scores for both SWWP ($p < .004$) and SWAP ($p < .0001$) between the progressed and non-progressed groups. **Conclusion:** SWAP tended to identify more patients than SWWP as progressed in eyes with progressive glaucomatous changes of the optic nerve head.

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