Comparison of perimetric results with the Humphrey and Mon-CV3 perimeters

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Abstract

Purpose: Standard perimetry has become the usual procedure for evaluating glaucoma visual field defects. Early detection is vital in glaucoma because it is a treatable disease with irreversible visual loss. The standard automated perimetry is not selective for any ganglion cells. Our objective was to compare the perimetric results obtained with Humphrey perimetry and Mon CV3, in patients with open angle glaucoma, pseudoexfoliation glaucoma, normal-tension glaucoma and suspected glaucoma.

Methods: Standard perimetry has become the usual procedure for evaluating glaucoma visual field defects. Early detection is vital in glaucoma because it is a treatable disease with irreversible visual loss. The standard automated perimetry is not selective for any ganglion cells. Our objective was to compare the perimetric results obtained with Humphrey perimetry and Mon CV3, in patients with open angle glaucoma, pseudoexfoliation glaucoma, normal-tension glaucoma and suspected glaucoma.

Results: Our study included 29 patients, (55 eyes), 13 women (44.82%) and 16 men (55.17%). Mean age was 61 years. We recorded 22 patients with primary open-angle glaucoma (75.8%), 3 patients with pseudoexfoliation glaucoma (10.3%), 1 patient with normal tension glaucoma (2.9%) and 3 with suspected glaucoma (10.3%). Below is the percentage of abnormal results in each test, related with the global indices mean deviation (MD). For SITA-Standard 57.1% (16/28), SITA-Fast 100% (27/27), STAT-24 55.5% (10/18), FAST-24 93.9% (31/33). The average time to perform the Mon-CV3 test was 280 seconds compared with an average time of over 308 seconds on the Humphrey. No statistical difference was found during time to perform both perimetric tests.
Conclusions: Both perimetric test show similar time to perform the study