

Correlation between contrast sensitivity and visual fields in patients with Primary Open Angle Glaucoma

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Abstract

Aim: To investigate effect of glaucoma on contrast sensitivity and to assess the relationship between contrast sensitivity and visual field loss in patients of primary open angle glaucoma.

Study Design: Cross-sectional case series.

Material and Methods: 24 patients from glaucoma department at the Al-Shifa Trust Eye Hospital Rawalpindi were evaluated. Subjects with diagnosis of glaucoma having visual acuity 6/12 or better were recruited. Visual acuity was measured using the standard Snellen Acuity chart at 6m. Contrast sensitivity was measured using the Pelli- Robson Chart. Visual fields of the patients were analyzed using the 30-2 full threshold program on the Humphrey Visual Field Analyzer.

Results: A total of 46 eyes were studied of 24 patients. Out of which male patients were 67% and females were 37%. The Pelli- Robson contrast sensitivity score correlated more strongly with the MD of the visual fields ($r=-0.615$, $P<0.001$). For the PSD of the visual fields, the correlation was $r=-0.453$, $P=0.003$.

Conclusion: Reduced contrast sensitivity is significantly correlated with visual field loss in patients with primary open angle glaucoma. The study data supports the conclusion that the disease process affects contrast sensitivity. *Al-Shifa Journal of Ophthalmology 2013; 9(2): 94-98* © Al-Shifa Trust Eye Hospital, Rawalpindi, Pakistan.