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

Zartasha Khalid\textsuperscript{1} BSc (Hons.), Mahmood Ali\textsuperscript{1} FRCS FCPS MCPS, Sohail Ahmed\textsuperscript{1} M.Phil MCS PGD

Abstract

\textbf{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.

\textbf{Study Design:} Cross-sectional case series.

\textbf{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.

\textbf{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=\textendash 0.615, P<0.001). For the PSD of the visual fields, the correlation was r=\textendash 0.453, P=0.003.

\textbf{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. \textit{Al-Shifa Journal of Ophthalmology 2013; 9(2): 94-98 © Al-Shifa Trust Eye Hospital, Rawalpindi, Pakistan.}