18th Asia Pacific

OPHTHALMOLOGISTS ANNUAL MEETING

July 29-30, 2019 | Melbourne, Australia

A prospective study to correlate the changes between retinal nerve fiber layer thickness and cupping of disc using optical coherence tomography and visual field changes using perimetry in primary open angle glaucoma patients

Vishakha Dabhi India

Introduction & Objective: Glaucoma is a major health problem. It is the third leading cause of blindness worldwide after cataract. Primary open angle glaucoma is the most common form of glaucoma and is the leading cause of irreversible blindness. Evaluation of Retinal Nerve Fiber Layer (RNFL) and Optic Nerve Head (ONH) is an essential step in the diagnosis and monitoring of glaucoma. Early detection and treatment of glaucomatous optic neuropathy may reduce the incidence of blindness from glaucoma. The aim of this study is to find correlation between RNFL loss and cupping of disc and visual field changes in POAG patients.

Method: This is a non-randomized, open label, prospective study, undertaken in department of ophthalmology Sir T. Hospital and Government Medical College, Bhavnagar after approval from Institutional Review Board. In our study 40 patients were examined who have attended our OPD were diagnosed as having POAG basing on the Applanation tonometry, optic disc changes and automated perimetry and RNFLT in OCT. Study data were entered and tabulated in Microsoft Excel 2007 and analyzed by Statistical Package of Social Science (SPSS) used to compare mean values to find p values and ensuring statistical significance.

Result: In our study we found correlation between vertical CDR and visual field changes statistically significant (BE-P<0.0001) and also there is a correlation between vertical CDR and RNFL loss (RE-P<0.019, LE-P<0.007). In our study we also found correlation between visual field changes and RNFL loss statistically significant. We also found that RNFL loss occur prior to visual field changes. We have found that the visual field changes, vertical CDR and RNFL loss are correlating with each other and consistent with the literature and other studies.

Conclusion: In our study we found correlation between RNFL loss and cupping of disc and visual field changes in POAG patients. We also found that RNFL loss occur prior to visual field changes. Thus, it helps in early diagnosis and monitoring of glaucomatous damage and helps to reduce the incidence of blindness from glaucoma.

vishakhadabhi@gmail.com

Notes: