

Retinal Nerve Fiber Layer Thickness Profile in Subjects with High Myopia

Aziz Jan Bashir¹, Adnan Aslam Saleem¹, Furqan Ahmad Khan¹, Farah Akhtar¹

Abstract

Aims:The link between myopia and glaucoma remains murky, largely because of the fact that it is difficult to separate myopia-related structural and functional abnormalities from 'true' glaucomatous changes. Retinal nerve fiber layer (RNFL) thickness by optical coherence tomography (OCT) in myopic subjects remain unreliable due to intrinsic alteration in RNFL in these individuals. Aim of this study is to compare the mean RNFL thickness between subjects with high myopia and subjects with no refractive error using OCT.

Methods:Patients of both genders aged 18-35 years having myopia of ≥ -6 D on refraction were selected as cases, and patients having no refractive error were selected as controls. OCT was used to determine the peripapillary RNFL thickness in both groups.

Results:The mean age of the subjects was 23.74 ± 4.79 years for cases and 24.90 ± 3.83 years in the controls. There were 50% males and 50 % females in cases and 56.7% compared to 43.3% in controls. The mean refractive error in cases was 11.57 ± 3.98 DS. The cases had a mean RNFL thickness of 73.09 ± 11.17 μm , whereas the controls had a mean of 99.07 ± 3.89 μm . There was a statistically significant difference between the two groups, p value of < 0.05 .

Conclusion:There was a statistically significant difference between peripapillary RNFL thickness measurements by OCT between cases i.e. myopes and controls i.e. subjects with no refractive error (p value ≤ 0.05). RNFL thickness is lower in subjects with high myopia as compared to emmetropes. *Al-Shifa Journal of Ophthalmology 2015; 11(1): 34-40. © Al-Shifa Trust Eye Hospital, Rawalpindi, Pakistan*
