

High Myopia, a risk factor for Primary Open Angle Glaucoma

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Abstract

Aims: Epidemiological evidence suggests that myopia is one of the risk factors for the development and progression of primary open angle glaucoma (POAG). However, the disease remains under diagnosed in myopes, particularly high myopes. The aim was to determine the frequency of POAG in healthy subjects with high myopia.

Methods: 115 high myopic subjects (≥ 6 D) were examined according to standard protocols, which included applanation tonometry, anterior chamber depth, perimetry and fundus exam. Visual field, cup-to-disc ratio (CDR), gonioscopy and intraocular pressure (IOP) criteria were used to define the presence of open-angle glaucoma. Definite open-angle glaucoma was defined by the presence of any two or all three of the following: abnormal visual field, large or asymmetric CDR, high IOP.

Results: A total of 115 eyes of 115 patients with a refractive error of more than -6.0D were studied. Out of these 63 (54.8%) were right eyes while 52 (45.2%) were left eyes. 49.6% of the patients were male and 50.4% were female. The sample of subjects was divided across the ages of 16-55 years with a mean age of 30.41 ± 8.15 years. The results showed that 19 (16.5%) out of the total 115 myopic eyes included in the study revealed glaucomatous changes while 96 (83.5%) did not show any signs of glaucoma. The high incidence of glaucoma in myopic subjects was statistically significant.

Conclusion: A high incidence of primary open angle glaucoma was found in high myopes in this study. The study established that high myopia is a major risk factor for POAG; hence high myopes should be screened at regular intervals to assess the development and progression of glaucoma. *Al-Shifa Journal of Ophthalmology 2015; 11(1): 18-23. © Al-Shifa Trust Eye Hospital, Rawalpindi, Pakistan*
