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## Role of full correction of myopia in regulation of intra ocular pressure in young persons

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**Aim:** A prospective observational clinical study was done to evaluate effects of full myopic correction on intra ocular pressure (IOP) in young persons.

**Materials & Method:** The study was done in the Department of Ophthalmology (Liaquat University of Medical and Health Sciences) from May 2014 to May 2016. By independent simple random sample selection technique, total 65 co-operative patients ranging 15-20 years of either sex having simple spherical myopia -1.0 to - 4.0 D, and intraocular pressure 12 to 19 mm Hg, wearing glasses for the first time were enrolled for study. After verbal/written consent, initial refraction was done with auto-refractometer, confirmed with retinoscopy, and refined by subjective correction. Slit lamp examination of anterior and posterior segment was done to rule out any ocular abnormality. Intra-ocular pressure was measured with applanation tonometer. Binocular alignment was assessed, pre and post corrected visual acuity, and back vertex distance was noted. Fully corrected prescription (equally readable in red and green on duochrome test) was given and constant wear was advised. After one week, the refraction was reconfirmed with glasses, and IOP was measured immediately after removing the glasses. Further follow up was done after one month than three months, each time IOP was measured immediately after removing the glasses, complain if any was noted and results were compiled.

**Results:** Out of 65 registered patients 52 completed three months follow up criteria of this study. Patients with incomplete follow up were not included in the data analyses. Among these 52 patients, reduction of IOP was observed in 45 (86.54%), and mean reduction of IOP was 2.8790 mm Hg (16.7062%). In remaining 7 (13.46%) patients there was no or little response. Only 10 (19.23%) patients complained of eye strains, which were relieved after few days. After three months follow up data was processed on SPSS version 14.0 and p-value was 0.003 (<0.05), which is quite significant.

**Conclusion:** Accommodation, which is reduced or totally abolished in myopia, plays important role in regulation of IOP, restoration of accommodation with full myopic correction helps in establishing normal physiology of aqueous humor circulation. Therefore myopia should not be under corrected in young persons, as full correction is more effective in reducing IOP and controlling progression of myopia than under correction.

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