
This Issue at A Glance

In this issue of IRJO Khabazkhoob and coauthors have presented “Validity of uncorrected visual acuity measured in vision screening programs for detecting refractive errors”. They have investigated 3,675 first year primary school children from seven cities of Iran through multistage cluster sampling. All students have uncorrected vision of 20/20. The authors found 1.14% of myopia, 8.07% of hyperopia, and 11.11% of astigmatism. They indicated that measurement of visual acuity alone is not sufficient for screening programs with many false negative results and cycloplegic refraction should be added to the programs to prevent any complication caused by refractive errors.

Hashemi and coworkers from different centers in Iran have presented a very scrupulous observation “The prevalence of refractive errors among Iranian university students”. In this cross-sectional study, samples were selected from different departments of Mashhad University of Medical Sciences. The data of 1,431 cases with mean age of 23 years were analysed. Myopia was seen in 41.7%, hyperopia in 7.8% and astigmatism in 25.6% of university students. They showed that the prevalence of myopia increases significantly with age in these cases ($p < 0.001$). Hyperopia which was significantly predominant in females decreased and shifted to myopia at university age ($p = 0.001$). High load of near activity for entrance to universities and during studying years could explain this phenomena. Shorter axial length of the eye in females can explain hyperopia^{1,2} which shifts to myopia at university age to be nearly comparative to male population. The significant increase of astigmatism with age is explained by Asano³ and Baldwin⁴ could be only due to corneal steepening with age. The authors concluded that the incidence of myopia is high in the university students which needs special attention and care.

Mojaled Nobari et al from Baghiyatallah University of Medical Sciences and Complutense University, Madrid, Spain have presented their work on “Predictability, stability and safety of MyoRing implantation in keratoconic eyes during one year follow-up”. They have included 54 eyes of 50 patients with stage II and III of keratoconus using MyoRing full flexible intracorneal implants. They found that the improvement in mean uncorrected distance visual acuity was about 10 lines after 12 months of follow-up. They concluded that MyoRing reduces the spherical and cylindrical components of manifest refraction by flattening the central cornea and is a safe and effective procedure. The efficacy and safety of Myoring for keratoconus patients has been also confirmed by other investigations.⁵⁻⁷

From Mashhad Eye Research Center, Gharaee et al have presented their findings on intraocular lenses in an article titled “Comparison of visual performance with photochromic, yellow and clear intraocular lenses”. Forty-seven patients have been evaluated. They found no difference in corrected distance visual acuity, contrast sensitivity and mesopic and photopic color vision using these three types of intraocular lenses. However, they indicated that retinal phototoxicity from solar light exposure could be a risk factor for age-related macular degeneration. Normal human lens yellowing with age has a protective role in transmission of blue light contrary to photochromic and clear lenses. Therefore, could prevent the damage of macula.⁸ Blue eye filtering IOL's with yellow tint having the spectral transmission properties of human aged lens. The authors in concordance with other investigators^{9,10} propose that the use of yellow tinted intraocular lenses could have protective effect for macular lesions. Even though all these above mentioned lenses have similar effect on final visual acuity.

Eslami et al from Tehran University of Medical Sciences have presented “Evaluation of the outcomes of one-site combined phacotrabeculectomy using sutureless tunnel technique without peripheral iridectomy in open angle glaucoma patients”. In this retrospective investigation of 48 eyes, after performing one-site phacotrabeculectomy without peripheral iridectomy in open angle glaucoma patients, they declared that the mean value of IOP decreased significantly after surgery

($p < 0.001$), the mean number of anti-glaucomatous medications decreased from 2.6 to 0.7 ($p < 0.001$) and the mean logMAR best corrected visual acuity improved from 0.97 to 0.33 at the final visit ($p < 0.001$). In agreement with other investigators they concluded that there are no differences in postoperative IOP and visual acuity with or without performing peripheral iridectomy. However, some complications such as hyphema and intraocular inflammations could be reduced in these patients.^{11,12}

Ghasemi Falavarjani and coauthors have presented on “Optical coherence tomography grid decentration and its effect on macular thickness measurements”. They found that after grid adjustment the changes in central field thickness was recorded between >1 mm and >8.5 mm between automatically determined and manually adjusted measurements consequence to decentration. They concluded that manually adjusted OCT scan should be evaluated for grid decentration.

In an article titled “Prevalence of intraocular injuries in patients with orbital blow-out fractures” Eshraghi and coworkers have presented a case series analysis of 116 patients with orbital blow-out fractures. Intraocular injuries were detected in 25% of patients. Hyphema (65%) and commotio retina (39%) were the most frequent lesions. Intraocular damages were significantly less common in patients with large orbital fractures. Kreidl and colleagues believe that orbital fractures can have a protective effect against intraocular injuries by a buckling process preventing contact with the eye.¹³ The authors concluded that ocular injuries are relatively common in blow-out fractures and necessitating a careful ophthalmic examination.

Andalib and colleagues from Tabriz University of Medical Sciences have presented “The effect of stenosis nature on success of silicone intubation for nasolacrimal duct stenosis in adults”. In a retrospective study they have evaluated the effect and nature of stenosis on success rate of silicon intubation. Forty-nine eyes of 37 patients with mean age of 49.45 years have been investigated. The overall success rate was 71.4%. The success rate in the patients with high stenosis was 88.8% which in simple stenosis was 61.2%. They found no correction of increasing age and accumulation of tight stenosis in both genders. They propose that in simple stenosis of lacrimal duct in which the result of intubation is less satisfactory some other mechanisms such as lacrimal pumping could play a major role in pathogenesis of disorder.

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References

1. Mallen EA, Gammoh Y, Al-Bdour M, Sayegh FN. Refractive error and ocular biometry in Jordanian adults. *Ophthalmic Physiol Opt* 2005;25(4):302-9.
2. Wickremasinghe S, Foster PJ, Uranchimeg D, Lee PS, Devereux JG, Alsbirk PH, et al. Ocular biometry and refraction in Mongolian adults. *Invest Ophthalmol Vis Sci* 2004;45(3):776-83.
3. Asano K, Nomura H, Iwano M, Ando F, Niino N, Shimokata H, et al. Relationship between astigmatism and aging in middle-aged and elderly Japanese. *Jpn J Ophthalmol* 2005;49(2):127-33.
4. Baldwin WR, Mills D. A longitudinal study of corneal astigmatism and total astigmatism. *Am J Optom Physiol Opt* 1981;58(3):206-11.
5. Mahmood H, Venkateswaran RS, Daxer A. Implantation of a complete corneal ring in an intrastromal pocket for keratoconus. *J Refract Surg* 2011;27(1):63-8.
6. Alió JL, Piñero DP, Daxer A. Clinical outcomes after complete ring implantation in corneal ectasia using the femtosecond technology: a pilot study. *Ophthalmology* 2011;118(7):1282-90.
7. Jabbarvand M, Salamatrada A, Hashemian H, Khodaparast M. Continuous corneal intrastromal ring implantation for treatment of keratoconus in an Iranian population. *Am J Ophthalmol* 2013;155(5):837-42.
8. van Norren D, van de Kraats J. Spectral transmission of intraocular lenses expressed as a virtual age. *Br J Ophthalmol* 2007;91(10):1374-5.
9. Neumaier-Ammerer B, Felke S, Hagen S, Haas P, Zeiler F, Mauler H, et al. Comparison of visual performance with blue light-filtering and ultraviolet light-filtering intraocular lenses. *J Cataract Refract Surg* 2010;36(12):2073-9.
10. Zhu XF, Zou HD, Yu YF, Sun Q, Zhao NQ. Comparison of blue light-filtering IOLs and UV light-filtering IOLs for cataract surgery: a meta-analysis. *PLoS One* 2012;7(3):e33013. Epub 2012 Mar 7.
11. Manners TD, Mireskandari K. Phacotrabeculectomy without peripheral iridectomy. *Ophthalmic Surg Lasers* 1999;30(8):631-5.
12. Kaplan-Messas A, Cohen Y, Blumenthal E, Avni I. Trabeculectomy and phaco-trabeculectomy with and without peripheral iridectomy. *Eur J Ophthalmol* 2009;19(2):231-4.
13. Kreidl KO, Kim DY, Mansour SE. Prevalence of significant intraocular sequelae in blunt orbital trauma. *Am J Emerg Med* 2003;21(7):525-8.