

Editorial

This issue at a glance



In this presentation “A comparative study on visual and optical performance of Akreos AO and Kontur AB IOLs, after phacoemulsification cataract surgery”, Gharaee H et al have evaluated the visual performances by comparing two aspheric intraocular lenses (IOL). They indicate that with age positive spherical aberration increases, and consequently mesopic contrast sensitivity decreases and in such condition application of spheric IOL would aggravate the positive spherical aberration and mesopic contrast sensitivity.¹ In this randomized, comparative, interventional investigation 35 aged patients (mean-age = 60.97 ± 7.00 years) have been selected. Randomly, in one eye Akreos AO and in the second eye Kontur AB IOLs has been placed, following phacoemulsification. They indicate that although the visual acuity and photopic, mesopic contrast sensitivity, and aberrometric factors were not significantly different between two lenses but aberrometric and contrast sensitivity were somehow more in favor for Akreos AO.

Zarei-Ghanavati S and coauthors present “Stereoaucuity after photorefractive keratectomy in myopia”. Stereopsis is one of the visual functions caused by different position of the image on the brain, binocular disparity.^{2,3} In this prospective interventional case series 48 myopic patients who underwent successful photorefractive keratectomy (PRK) were investigated. The stereoscopic vision was taken by TNO test charts preoperatively and at 3 and 6 months postoperatively. Before the surgery the stereoscopic vision was 246.56 ± 98.43 s of arc and postoperatively at 3 and 6 months $365.38 + 112.65$ s of arc and 343.51 ± 88.96 s of arc was recorded, respectively. The stereoscopic vision was significantly deteriorated ($p < 0.001$) after PRK, even though the vision was significantly improved without correction.

Hashemi H and colleagues present “Pentacam top indices for diagnosing subclinical and definite keratoconus”. Keratoconus (KC) often starts at the age of puberty,⁴ and corneal cross-linkage is particularly effective at early development stage of KC.⁵ In this investigation the authors have tried to find out the best methods and indices for diagnoses of KC at different stages of the disease. They evaluated 262 keratoconic cases and compared with 97 healthy individuals (control

group), using Pentacam HR. In Keratoconic cases the average of all pachymetric and topometric indices and the 3rd and 5th order vertical coma aberration was significantly different from the study group ($p < 0.001$). Belin/Ambrosio (BAD-D) enhanced ectasia total deviation value, index of vertical symmetry (IVA), index of surface variances (ISV), and 5th order vertical coma aberrations were best diagnostic criteria for subclinical KC ($p \leq 0.001$). They particularly emphasize that BAD-D, 5th order vertical coma aberration, IVA, and ISV can identify subclinical KC.

Alipour F and coauthors present “Visual management of aphakia with concomitant severe corneal irregularity by minislcleral design contact lenses”. In this case series 8 eyes with post traumatic aphakia and severe ocular injury who could not be corrected with conventional corneal contact lens were fitted with minimal corneal contact lenses. The mean final best corrected visual acuity after 14.6 months of follow-up was 0.05 logMAR and the mean comfortable daily wearing time has been 11.6 h. In two cases irritation and redness has been observed during the follow-up period. The authors claim that the use of sclera contact lenses is rapidly extending in cases of severe ocular pathology with accurate results.⁶ They indicate that the ideal fit is no touch over the entire cornea by use of fluorescein viewed by cobalt light.

Karkhane R et al present “Complement factor H and LOC387715/ARMS2/HTRA1 Variant's frequencies and phenotypic associations in neovascular age-related macular degeneration, a pilot study”. In addition to some known risk factors such as aging, smoking etc. the role of genetics in the pathogenesis of age related macular degeneration (ARMD) has been indicated by some authors.⁷ The most important senile nucleotide polymorphism (SNPs) of complement factor H (CFH) gene on chromosome 1 and LOC387715/ARM52/HTRA1 on chromosom 10⁸ have been shown to have influence on ARMD. However, the frequency is different in diverse ethnics. In this prospective non-comparative case series the authors have investigated 44 Iranian patients with neovascular ARMD using sequencing on Sequenon iPLEX technology. The most SNP which has been found in all Iranian cases has been rs1061147; and only those with allele rs800292 of CFH locus on Iq32 had visual acuity of 20/200 or better.

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Beigi B and coauthors present “Combined external and endonasal approach to fronto-ethmoidal mucocele involving the orbit”. They present a technique to operate frontal sinus mucocele and to prevent recurrences, and less complications. Nine eyes of eight patients have been included in this retrospective investigation. The intervention has been achieved by ENT and orbital surgeons. The external incision has been done by upper eyelid skin crease combined with an internal endoscopic approach. Where the sinus has been connected to nasal cavity by a silicon stent following distinction of the mucocele. The mean follow-up has been 38.7 months and no major pre or postoperative complication have been observed. The authors claim that lynch incision⁹ and also bicoronal osteoplastic flaps are time consuming and are followed by postoperative complication¹⁰ which are avoided by this new technique.

Hormoz Chams, MD

Senior Editor, Journal of Current Ophthalmology

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