

MANAGEMENT OF ASTIGMATISM IN CATARACT SURGERY

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Evaluating a cataract patient's astigmatic error isn't just about the shape of the front of the eye anymore. Failure to include posterior corneal curvature in the pre-surgical calculations can bring unwanted refractive surprises for both doctor and patient. Most devices to assess corneal curvature, such as keratometers and corneal topographers, measure the anterior surface curvature to calculate the cornea's total refractive power and its total astigmatism. In these calculations, the posterior corneal curvature and the anterior curvature are assumed to have a constant ratio. Ignoring posterior corneal astigmatism may yield incorrect estimation of total corneal astigmatism. Selecting toric intra-ocular lenses based on anterior corneal measurements could lead to overcorrection in eyes that have with the rule astigmatism and under correction in eyes that have against the rule astigmatism. It is now shown that the posterior corneal surface acts as a negative lens and as a result the total corneal power is overestimated in eyes with the rule anterior astigmatism and underestimated in eyes with against the rule when only the anterior corneal surface is taken in account. The Barrett Toric Calculator is a one step formula that shows great promise for calculating IOL toricity

and recommended alignment. Preliminary data look excellent. Surgeons using an intra-operative aberrometer are able also to measure the corneal power including the front and back surface prior to lens insertion to best determine the optimal amount of astigmatism that should be corrected. In conclusion considering the effect of posterior corneal power in the toric IOL calculation reduce the Post-op surprise.

Biography

Safwan Al Bayati has completed his M.B.CH.B from Baghdad Medical College, IRAQ. then has completed Board in ophthalmology (F.I.C.M.S.OPHTH) 4 years study Ophthalmology, Iraqi commission for medical specialization. the he finished FRCS Fellowship of Royal College of Physicians and Surgeons of GLASGOW- UK. He has worked as Director of Ophthalmic Department and Specialist Ophthalmologist, Phaco- Refractive- Retina Surgeon at N.M.C. Specialty Hospital, Dubai, UAE. Then he has worked as a Consultant Ophthalmologist ,Phaco-Refractive- Retina Surgeon at Imperial Healthcare Institute, DHCC, Dubai, UAE. Currently he is the Founder, Medical Director and Consultant Ophthalmologist, Phaco- Refractive- Retina Surgeon at New Vision Eye Center, DHCC, Dubai, UAE.

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