Editorial

Cataract and Refractive Surgery

The last quarter of a century showed tremendous innovations and improvements in medical science in general and Ophthalmology in particular. The ophthalmic conditions once thought to be dreadfully blinding are now tackled effectively after better understanding of the disease process. These improvements involve practically all areas in Ophthalmology from anterior to posterior segment, orbital to adnexal sub specialty of ophthalmology where better understanding of the subject has lead to better management, revolutionizing the treatment plan of the disease and the patients.

Cataract, the most commonly occurring senile ailment is most widely studied, improvised and improved management wise. From the days of surgical management by couching, this condition is now tackled with utmost precision through image enhancement, microsurgical techniques and lens replacement with state of the art lenses available today for total glasses freedom and independence. Like the great idea of intra ocular lens in 1949 by Sir Harold Ridley,[1] the invention of phacoemulsification method by George Kelman in sixties has totally changed the outcome and the outlook of this sometime thought to be a permanently disabling condition operated or un-operated wise.[2] The skills for managing cataract nowadays are improved with immediate and perfect results achievable through better technology and experience. Needless to mention the role of all the stake holders in building the foundations at which Ophthalmology is standing right now.[2]

The technique of cataract surgery is improving further, day by day over the platform of phacoemulsification cataract surgery. New machines are coming every now and then with better control over the process at the same time avoiding possible complications to produce better results. The work is mainly focused in achieving better results using minimum energy, hence complication rates are reduced. The fluid management system can now work more efficiently and effectively with control over the dynamic rise taking the best benefits out of this technique. The oscillation motion now available prevents occlusion thereby reducing the risk for posterior capsule rupture, the most unpleasant complication a phaco surgeon can think of. The recent advances have remarkably reduced the phaco time needed to effectively emulsify even a denser. Introduction of Femtosecond laser as a cutting tool for those aiming at high precision is a remarkable. This machine transforms the most delicate steps of cataract surgery into simple maneuvers avoiding the complications and adding success to the outcome[3].

The laser corrective surgery for refractive error is changing fast since its introduction and, it can tackle a refractive error from +6 dioptres of hyperopia to -10 dioptres of myopia with up to 4 cylinders of astigmatism. Excimer laser refractive surgery techniques in current use include: photorefractive keratectomy (PRK), laser epithelial keratomileusis (LASEK) and laser in-situ keratomileusis (LASIK). New modalities both in terms of technology development as well as treatment options based on the research data is responsible for controlled, long lasting and better results.[4]

The introduction of intraocular lenses like phakic IOL for accommodation correction, astigmatic correcting[5] lenses for astigmatism, multifocal lenses for distance and near distance correction and multifocal astigmatic aspheric lenses for correcting astigmatism distance and near distance correction are few of the technologies available now and are responsible for total glasses freedom for patients with cataracts. These lenses when planned for a patient require lot of workup and careful selection in order to avoid difficulties post operatively which may come in due course. Once a patient is carefully selected, briefed, counseled and the procedure is done successfully, the outcome and patient's satisfaction is remarkable. Not all the patients are candidate for the above mentioned lenses, a careful selection criteria is to be met before offering these lenses to the patients. Results with multifocal lenses are very good so are the results with toric astigmatic correcting lenses. Learning the new lens technology, calculation of the power and selecting lens type for your patient and placements require understanding and practice. Much is done but a lot has to be done in this important field

which is the present and the final frontier in the field of Surgical Ophthalmology.[6]

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