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Through the Asia-Pacific Lens

*Experts take a look at the current state of the field
of cataract surgery and IOLs from the perspective
of the Asia-Pacific region*

Cover feature: Cataract Surgery and IOLs

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Asia-Pacific Association of Cataract
& Refractive Surgeons (APACRS)

Letters from the Editors

Dear Friends



Until recently the selection of an intraocular lens implant has been based on different styles of haptics and types of lens material. Today, however, the choice of an intraocular lens implant needs to consider not only structural but also functional criteria. Enhanced optic designs have focused on improving the quality of vision as well as lifestyle issues, particularly the need to avoid spectacles both for distance and near vision.

Intraocular lenses with aspheric optics have been shown to improve contrast sensitivity and toric intraocular lens implants are a very effective method of addressing preexisting astigmatism. These innovations have been widely accepted by the profession globally and across the Asia-Pacific region. During the roundtable discussion included in this issue it soon became apparent that the use of multifocal and accommodating lenses was more controversial, particularly in our region. A true accommodative intraocular lens implant would be ideal as this would preserve quality of vision. The efficacy of these types of lenses, however, remains questionable. Multifocal implants are certainly capable of providing unaided near and distance acuity but concerns relating to impairment of contrast sensitivity and unwanted optical aberrations such as halos were shared by all participants in our roundtable discussion.

Although patient choice is often emphasized in these discussions most of us agree that physician preference has a major influence on the type of lens selected by individual patients. Advising patients facing cataract surgery on the preferred type of intraocular lens for their surgery is a serious responsibility as compromising the quality of vision may result in a dissatisfied patient. An alternative to multifocals which I have personally found to be very effective in improving unaided near vision after cataract surgery is modified monovision. A target refraction of emmetropia preferably in the dominant eye and -1.00 to -1.50 diopters of myopia in the second eye is sufficient to satisfy the vast majority of distance and near vision requirements without spectacles. This degree of anisometropia is well tolerated, avoids asthenopia due to binocular rivalry and preserves stereovision.

We live in exciting times and new implants and surgical techniques have certainly enhanced the refractive outcome and satisfaction of patients undergoing cataract surgery. I hope that the articles and discussions in this issue are of assistance for surgeons in the region to better understand the pros and cons of the different types of intraocular lens implants available for their patients undergoing cataract surgery.

Warmest regards

Associate Professor Graham Barrett, MD
President, APACRS
Chief Medical Editor, EyeWorld Asia-Pacific

Dear Friends



The cover feature of this issue is: Cataract surgery and IOLs. Besides this there are numerous interesting articles covering many aspects ranging from LASIK (femtosecond) to retinal problems encountered by anterior segment surgeons.

Removal of an opaque crystalline lens was the simple goal of cataract surgery two generations ago. Cataract surgery has now expanded into the realm of refractive surgery. The introduction of aspheric, presbyopia-correcting and toric

intraocular lenses has shifted the emphasis of cataract surgery from just treating patients' functional symptoms to patient-centered care and the optimization of the refractive outcome of the procedure. Modern surgery includes small incisions, the option of astigmatism correction and UV-absorbing chromophore foldable lenses placed inside the eye. Despite these grand accomplishments, cataract refractive surgery has not completely solved the presbyopia dilemma. Cataract and clear lens surgery has tried to treat presbyopia with a multifocal approach. This trend will continue as newer presbyopia correcting intraocular lenses become available. The development of accommodative IOLs is ongoing and may offer the best solution for presbyopia: an IOL of high-amplitude variable focality. In practice it should be noted that the refractive mindset of this group of patients calls for a commitment to increased precision and quality in preoperative planning and measurements, intraoperative surgery and postoperative refractive assessment.

We all know that the femtosecond laser has potentially improved the safety and precision of creating corneal flaps in laser in situ keratomileusis. I get amazed as I read more and more of the various ways that femtosecond technology is making corneal surgery more precise and safe. It is being used not just for creating anterior corneal flaps in LASIK surgery, but also for lamellar dissection in anterior lamellar keratoplasty, for creating corneal pockets in Intacs insertion, in donor tissue preparation in Descemet's-stripping endothelial keratoplasty and arcuate wedge-shaped resection in the correction of high residual astigmatism. With this technology we are now able to create full-thickness corneal incisions with customized graft-edge profiles for both donor and recipient corneas to perform femtosecond laser-assisted keratoplasty.

Our glaucoma section reports the initial results of the Tube versus Trabeculectomy Study, designed to compare long term efficacy and complications between patients who underwent Baerveldt tube implantation and patients who underwent conventional trabeculectomy. One-year results showed encouraging outcomes with Baerveldt implants.

There is an interesting article on the surgical treatment of endophthalmitis from the Vietnam National Institute of Ophthalmology. Professor Do Nhu Hoa and colleagues from VNIO performed vitrectomy on severe cases of endophthalmitis and used silicone oil tamponade. They concluded that outcomes were probably better than they would have been without the silicone oil.

I hope that you will enjoy reading this issue and gain insight from all the experts. I will end with a beautiful saying by Confucius:

Do not be desirous of having things done quickly. Desire to have things done quickly prevents their being done thoroughly. Looking at small advantages prevents great affairs from being accomplished.

Dr S Natarajan
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