Practice Pattern in Cataract Surgery

There are various situations in cataract surgery where opinions matter and we learn from the experience of each other. UPJO brings up a panel discussion on preferred practice patterns in cataract surgery. The expert panel consisted of:

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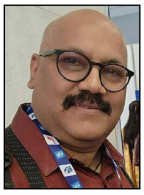
EXPERT PANEL



Dr. Arup Chakrabarti (AC)
Medical Director,
Chakrabarti Eye Care Center
Trivandrum

Dr Vinod Arora (VA)
Medical Director
NavJyoti Eye Hospital
Dehradun

Dr. Jatinder Wahi (JW)
Medical Director
Greens Medical Center
Lucknow

Dr. Manish Mahendra (MM)
Medical Director
P N Mahendra Eye Institute
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MK*: What is your minimum threshold for implanting a toric IOL?*
VA: The decision to put a Toric IOL depends on various factors. I take care of the amount and degree of toxicity of the cornea and the patient's visual needs. Each case is individually evaluated and accordingly, the decision is made. Normally my threshold is 0.75 D corneal cylinder if my incision is not on the steep axis.
MM: I would prefer implanting a toric IOL in a patient with regular astigmatism > 0.75D
JW: I prefer to implant a toric IOL for astigmatism > 0.5 D.
AC: I use Barret Toric Calculator as my default IOL power calculation formula. And I will advise a toric IOL guided by the formula prediction. My refractive target is the lowest postoperative residual astigmatism.

MK: *Which is your preferred method of toric marking-Air bubble/App/Verion?*
VA: All the methods have their advantages and limitations. I use slit lamp for axis marking. I reconfirm or modify it by using Axis marking app.
MM: I usually use Air bubble Toric marker in all my cases preoperatively to identify 0, 90 and 180 degrees axis and thereafter use intraoperative Toric markers for final alignment of the Toric lenses.
JW: I prefer and trust Verion for all my patients.
AC: Slit Lamp Marking in the OT. I try to identify limbal/ conjunctival landmarks corresponding to the toric axis and remember them so that the preoperative marking with a sharp device or marking pen is avoided altogether.In most cases one is able to avoid 26 G needle scratching or limbal staining in the preoperative phase.

MK: *Do you find any difference between 2.8 and 2.2 incisions?*
VA: Reducing the size of the incision in cataract surgery from 2.8 to 2.2 makes hardly any difference in SIA. However, I prefer 2.2 mm incision, it provides better stability.
MM: Practically decreasing incision size from 2.8 to 2.2 mm does not significantly reduce surgically induced astigmatism. Still, I prefer 2.2 in most cases as it gives a better wound apposition and decreases the risk of post-operative infection.
JW: Yes. SIA doesn't come into play with 2.2 mm incision but plays a major role with 2.8 mm incisions.
AC: I use both incisions depending upon the machine brand, phaco needle/irrigation sleeve combo and the IOL injector that I am using for a given case. Though we prefer a 2.2 mm

incision, I don't see much difference in the manifest refractive outcomes in both types of incisions.

MK: ***When implanting bilateral EDOF IOLs, you plan emmetropia in both the eyes or defocus in one eye?***
VA: Normally I plan micro monovision with EDOF lenses. I prefer to keep non-dominant eye slightly myopic. It increases the range of near vision and most of the patients do not need glasses for most of the time.
MM: I plan emmetropia in both eyes explaining that their distance and intermediate vision will be good but they would need spectacles for small font size.
JW: I plan a defocus of 0.75 D. in specific lenses of HOYA geometric and geometric plus, its pure emmetropia for both eyes.
AC: Plano in dominant eye and slightly myopic target in the non-dominant eye after appropriate patient counseling.

MK: ***In small pupils you prefer rings or hooks? Why?***
VA: The elasticity should be tested after side port incisions for a small pupil. The small pupil may be elastic or non-elastic. In case of rigid pupil, using ring or hooks may cause tear of pupillary margins. We use two Kuglen hooks and stretch pupillary margin 360*before putting ring or hooks. Rigid pupils are common in pseudo-exfoliation. The damage or distortion is more common with hooks. It take less time to put a ring as compared to hooks.
MM: I prefer ring (Malyugin) as against the hooks. Ring is easier to place and can be folded back conveniently. Hooks can stretch the pupillary sphincter and hence can distort the pupillary shape but its not the case with ring.
JW: My personal preference is for hooks.
AC: Hooks – Less expensive, easy to use especially in shallow AC situations, can also be used to support rhexis margin if the intraoperative situation calls for it, suitable for coloboma situations and post-vitrectomy eyes, doesn't require OVD for removal which is real advantage in small pupil toric IOL surgery.

MK: ***What shall be your preferred IOL for a young patient with unilateral cataract?***
VA: The common cause of unilateral cataracts may be trauma, infection or inflammation. Our aim is here to provide a sharp distance vision. My preferred lens will be EDOF in these cases. Younger the patients, the greater the chances of amblyopia. A sharp distance vision prevents it.
MM: In children, mono-focal IOLs are the implant of choice because of their superior image quality and minimal visual aberrations. Choice of IOL depends on the age and occupation of the person. Trifocal and EDOF lenses are good options for young patients with unilateral cataracts but should be used cautiously in children who are still growing.
JW: My preference would be for multifocal toric IOL in such cases.
AC: I have used both monofocal and multifocal IOLs in this situation. Multifocals are used only if there are no significant associated comorbidities after adequate patient counseling and lifestyle assessment.

MK: ***What shall be the minimum time span after cataract surgery, you would like to do YAG Capsulotomy?***
VA: Normally I wait for two to three months. However, if the patient is symptomatic an early capsulotomy may be done, provided there is no inflammation.
MM: I would prefer to wait for a month before I do a Yag Capsulotomy so that the eye becomes quiet and there is no active intraocular inflammation.
JW: I prefer to wait for 3 months after cataract surgery to do YAG Capsulotomy
AC: Not before 3 months in most situations. In a MF IOL situation the timing may be tricky and should be done after ruling out other causes of patient dissatisfaction.

MK: ***Which is your preferred IOL in the presence of PC rupture for sulcus implantation- single-piece foldable/ three-piece foldable or rigid IOL?***
VA: Always three-piece, if possible with optic capture. Other lenses are not recommended. If the rupture is small, I try to convert it to posterior capsulorhexis and implant one-piece lens in the bag.
MM: Three-piece foldable IOL is my preferred IOL. These IOLs have a slightly larger overall size for a better fit within the sulcus. The haptics are fine and thin with an angulation of a few degrees to keep the optic away from the Iris. I also do an optic capture for better stability.
JW: My preference would be for a three-piece foldable IOL in such a scenario
AC: 3-piece foldable IOL with optic capture would be my choice.

MK: ***What's your preferred technique for secondary IOL and why- ACIOL/scleral fixated IOL/Iris Claw IOL?***
VA: I prefer iris-claw IOL retro fixation. It is easy to implant, or explant in case it is required.AC IOL may have lots of possible complications. Scleral fixated IOLs are also good but require more time and more invasive surgery.
MM: I would prefer Iris Claw IOLs. SFIOL implantation is good but more technically challenging with a longer learning curve compared to iris claw IOL.I think the choice of IOL depends on the surgeons' expertise and previous exposure. Also, iris claw IOLs may be preferred in eyes with poorly dilating pupils without other iris deformities as in such cases, performing SFIOL becomes extremely difficult.
JW: I prefer to do AC IOL or Iris Claw IOL
AC: Scleral fixated IOL which I have been using for 3 decades. The technique I use has evolved from 10-0 nylon to 9-0 nylon and now Gore Tex CV 8. I also use ACIOL in selected cases of aphakia when the patient is uncooperative provided there is no ACIOL contraindication.

MK: ***How long after cataract surgery do you ask your patients to use topical antibiotics?***
VA: Typically for two weeks. Some people recommend it for one week only. Steroids are used for four weeks without tapering. My preferred antibiotic is moxifloxacin.

MM: I give topical antibiotics for a week's period
JW: I prefer to give topical antibiotics for ten days after cataract surgery.
AC: I give topical antibiotics for five days after cataract surgery.