MANAGING DIFFICULT CATARACT CASES BY SMALL INCISION CATARACT SURGERY

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ABSTRACT: We studied 28 such cases in last 2 years at our institution & how we could handle such cases like brown cataract, subluxated lens, morgagnion cataract, cataract with uveitis & with previous glaucoma surgery. After struggling with phaco method we could successfully manage all these cases with old popular method SICS. **CONCLUSION:** PHACO & FAMTO are excellent but in such difficult cases SICS is only solution & it is cheap another advantage of this method is, it is fast & only can overcome such a huge backlog in developing countries like INDIA.

KEYWORDS: Hyper mature cataract, hard cataract, morgagnion cataract.

INTRODUCTION: Cataract surgery is most common surgery performed today, technique like ICCE, ECCE, SICS are getting out dated in front of phaco & famato laser but in difficult cases these old methods are helpful particularly SICS.

FEW OF SUCH CASES:

SUBLUXATED LENS WITH CATARACT: Zonular weakness complicates every step of surgery & poses serious threat in terms of visual outcome. A detailed examination is mandatory for-a-extent of zonular weakness b-presence of vitreous in ant chamber. C-position of lens, USG & OCT. d-fundus examination & B scan in opaque media.

STRATEGIES:

- Incision should be away from area of zonular weakness.
- Use high molecular weight viscoelastic.
- Capsulorrhexis should be initiated in an area away from dialysis.
- Avoidance of excessive fluctuations in AC by controlled paracentesis.
- Gentle hydro dissection to allow unimpeded rotation of nucleus.
- In case of frank ZD, Implantation of capsular ring.

BROWN CATARACTS:

- A-Nucleus size is very large & it is difficult to take out.
- B-protecting endothelium is very important.
- C-absence of red reflex makes capsulorrhexis difficult.
- D-Weak zonules especially when the nucleus is very dense.

STRATEGIES:

- It is preferable to have a large tunnel.
- Viscoelastic should be of moderate molecular weight & dispersive to cover endothelium.

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- Trypan blue dye to get better contrast during hexis.
- Make large capsulorrhexis, it will make nucleus delivery easy.
- Nucleus delivery is done either by phacosandwich or phaco fracture technique.
- Large incision should be sutured to prevent astigmatism.

MORGAGNION CATARACT:

- A hyper mature cataract becomes white when degenerating cortex reaches hyper osmotic state inside the capsule & draws in fluid; this leaves a very tense capsule & a heavy nucleus that often sinks in gelatinous and fluid cortex.
- Problem is difficult visualisation during capsulorrhexis against white back ground and release of milky cortex with no red reflex.

STRATEGIES:

- Trypan blue dye use for better contrast during hexis.
- Good quality visco to protect endothelium.
- Intumescent cataract requires a cohesive viscoelastic to create space and prevent AC shallowing
- Slow and study rhexis of adequate size is performed.

CATARACT WITH PREVIOUS GLAUCOMA SURGERY:

- Trabeculectomy whether performed as primary procedure or after medical therapy significantly increases the risk of cataract formation.

CHALLENGES:

- Shallow AC, Hypotony, Floppy iris, postoperative bleb failure.
- Post op inflammation & intense anti glaucoma medications.

STRATEGIES:

- Good pre op bleb assessment, minimal conjunctival trauma.
- Temporal incision away from bleb, controlled paracentesis.
- Bleb assessment at the end of surgery.
- Good postoperative control of inflammation.

POST UVEITIC CATARACT: Cataract development is a very common occurrence in any form of anterior and intermediate uveitis, because of:

1. Recurrence and chronic inflammation,
2. Long term use of corticosteroid therapy.

CHALLENGES:

- Small pupil because of posterior synechiae formation.
- Pupillary membrane.
- Increased chances of bleeding intra operatively due to fragile vessels.
- Pre and Postoperative inflammation.

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STRATEGIES:

- Preoperative inflammation period of 3 months or more (with or without steroids)
- Synechiolysis followed by Viscomydriasis (high molecular weight viscoelastics), stretch pupiloplasty and multiple sphincterotomies.
- Precise and gentle maneuvers during surgery
- Good control of postoperative inflammation with judicious use of steroids.

CONCLUSION: Hyper mature and complicated cataracts not only present a surgical challenge in terms of the difficulty in visualizing ocular structures, but they may also be requiring good pre-operative assessment and modification of surgical steps as required. A thoughtful approach to surgery will help ophthalmologists manage these complex cases by MSICS which are tough to manage by phacoemulsification. With good pre-operative evaluation and meticulous surgical techniques it is possible to maintain Quality in Quantity especially in mass cataract surgeries and combating the backlog

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