IOL IMPLANTATION IN SUBLUXATION

BY

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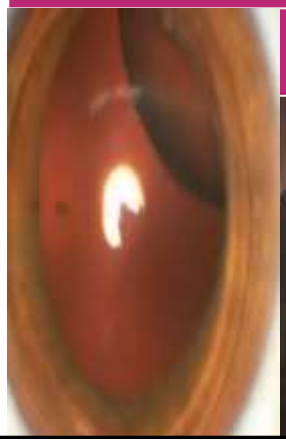
Etiologic Classification : cold cases
hot cases

- Congenital



- Traumatic

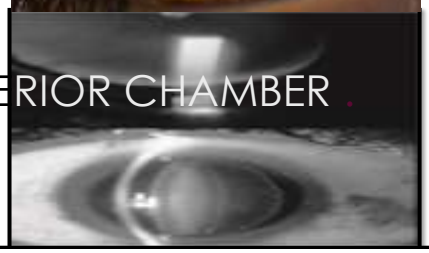
- Consecutive or Spontaneous

- IATROGENIC

TRAUMATIC

An obvious signs may include :

- SPHINCTER TEAR.
- phacodonesis.
- ANGEL RECESSION _ _ _ _ _ _ IOP ++
- HYPHEMA
- VITREOUS PRESENTATION IN THE ANTERIOR CHAMBER .
- POST-SEGMENT ISSUE; RD, VIT. HGE,
- BERLIN'S EDEMA ,ECT.

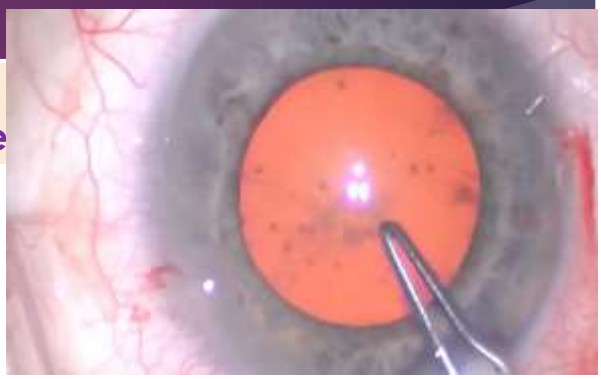


Intraoperative signs of broken zonules:

Difficulty or Radial folds when puncturing the anterior capsule

Excessive movement of the lens or the nucleus during the hydrodissiction procedure.

Difficulty of nuclear rotation.



Posterior displacement of the lens on starting the infusion.

Vitreous herniation around the lens.

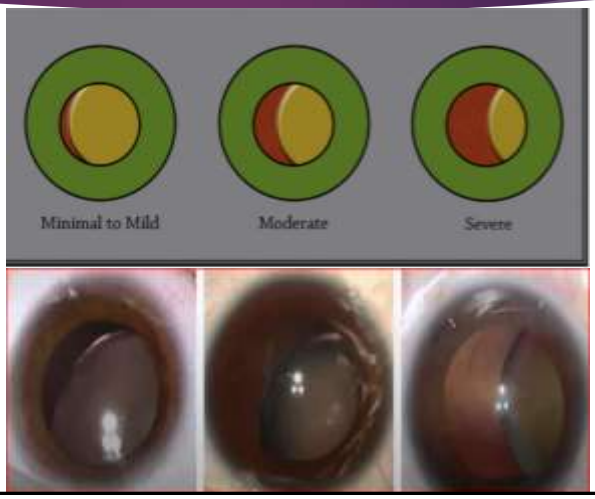
WHEN TO INTERFERE
= Cause for decrease VA

- **Fluctuating vision dramatically as the vision may alternate between phakia and aphakic**
- **Progressive movement of the lens -Extreme hyperopic or myopic shift +/- astigmatism.**
- **Monocular diplopia .**
- **Poor near vision (loss of accommodative power).**

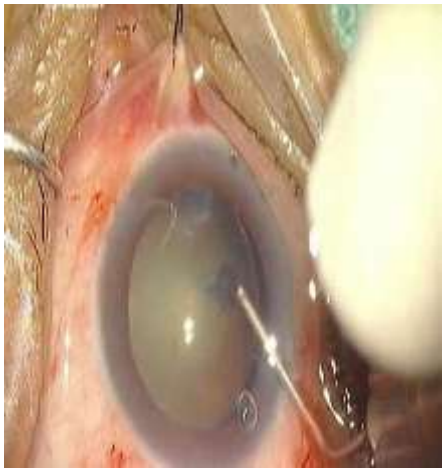
WHY TO INTERFERE = TO AVOID:
Surgical treatment is also advisable if there is

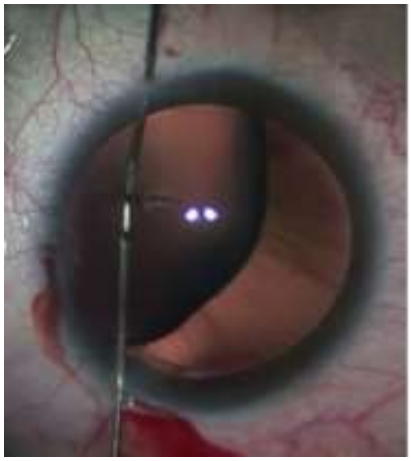
- **1. Progressive subluxation.**
- **2. Lens bisects pupil.**
- **3. Threatened posterior or anterior dislocation.**
- **4. Poor visual acuity in an older child or adult. attributable to subluxated lens.**
- **5.Pupillary block glaucoma.**
- **6.Forwards displacement-Endothelial damages ,etc.**
- **.Ac angle closure**

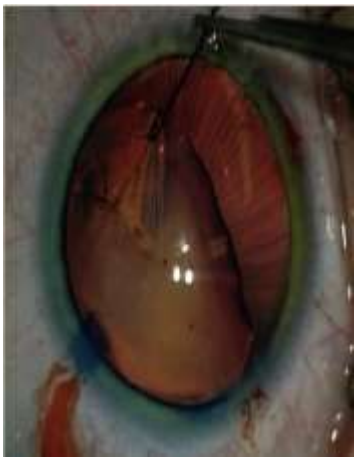
EVALUATION &PLANNING



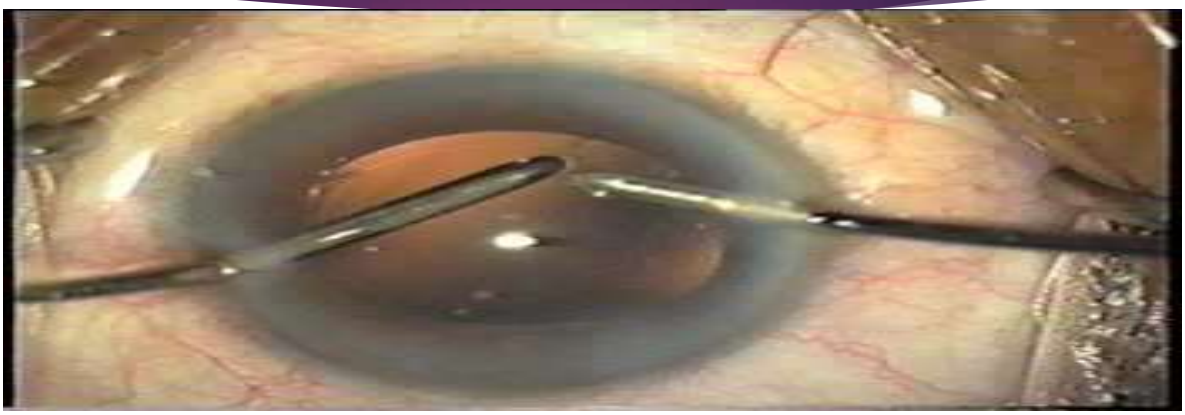
Intraoperative difficulties : CAPSULRHEXIIS







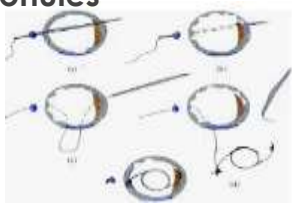
Difficulty on polishing of posterior capsule

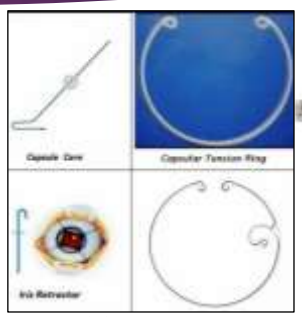


Devices used in Surgery

Capsular Tension Ring Indications:

- Missing or damaged zonules
- Pseudo exfoliation
- High myopia
- Marfan Syndrome
- **Mechanism:**

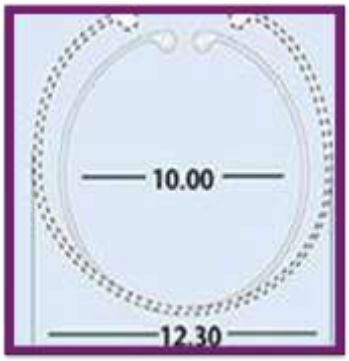




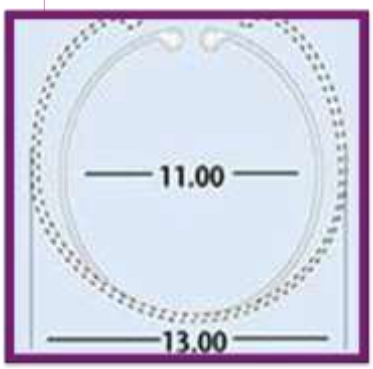
Circular expansion of capsular bag Stable conditions during surgery Improves IOL centration Reduced risk of caps fibrosis Resists capsular Shrinkage

Capsular Tension Rings

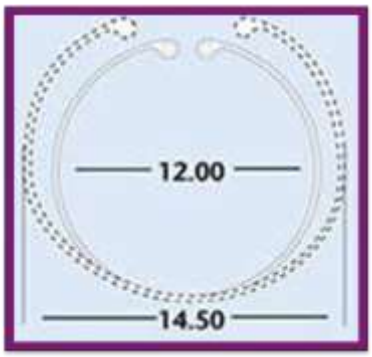
Axial length <24mm for normal eyes



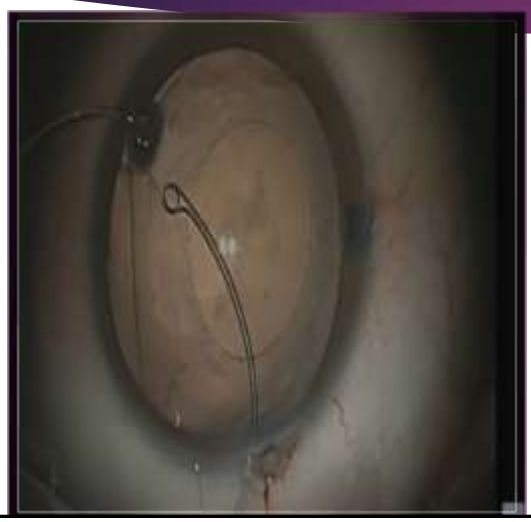
Axial length 24-28mm for normal or myopic eyes

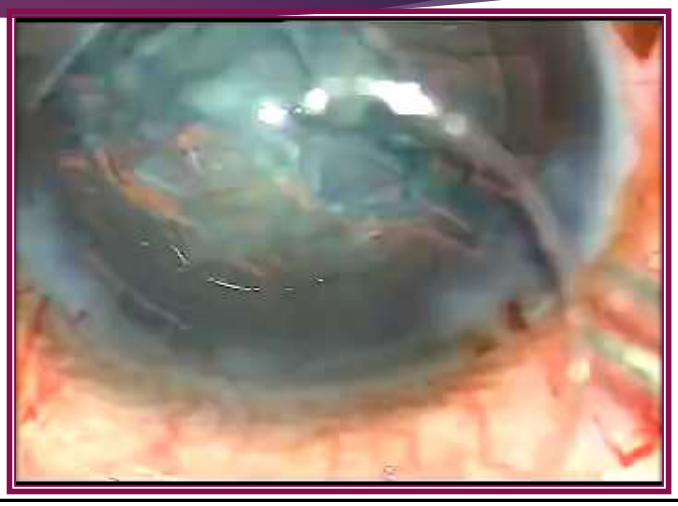


Axial length >28mm for highly myopic eyes



CTR IMPLANTATION





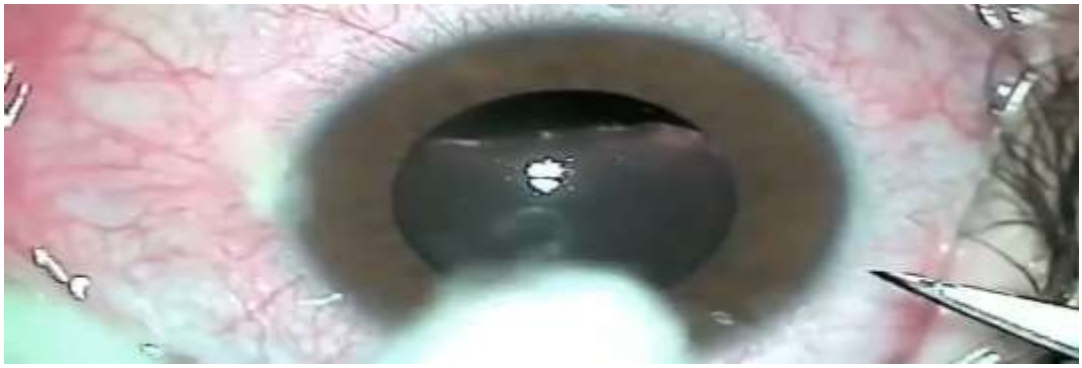
Contraindications of CTR implantation

- ***Anterior capsular tear***
- ***Posterior capsular tear***
- ***Incomplete rhexis***
- ***Sever subluxation***
- ***Progressive zonulopathy***

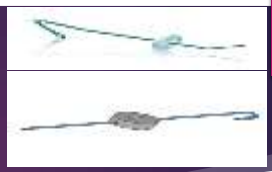
Cionni Ring

- **Designed for scleral fixation with suture**
- **One or two hooks extending from the ring, an eyelet located on the hook located behind the iris just in front of anterior capsule**
- **The sutured eyelet anchors the ring to sclera in the area of missing zonules**
- **Most frequent complication - posterior capsule opacification (PCO) - 20%**

MILD SUBLUXATION

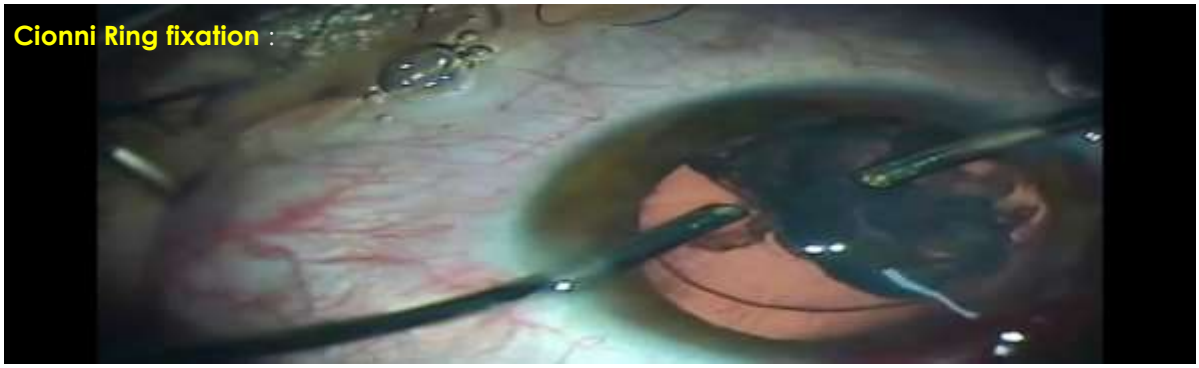


MODRATE SUBLUXATION
Capsular hooks



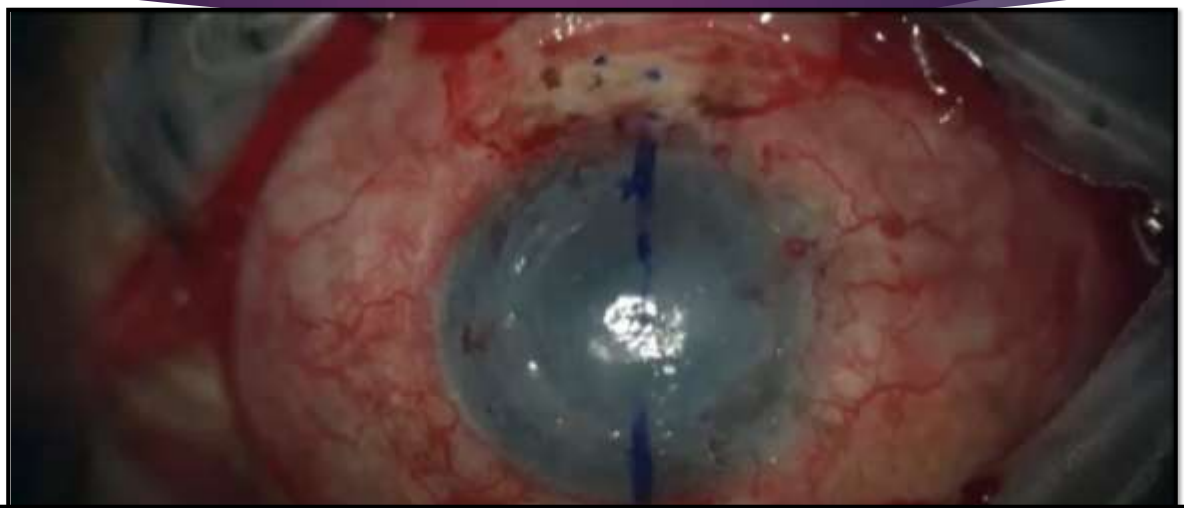
MODRATE TO SEVER SBLUXATIN

Cionni Ring fixation :



Sever subluxation

SCLERAL FIXATION IOL



TAKE HOME MASSAGE

Lens subluxation need meticulous pre op evaluation

To reduce zonular stress during surgery always pull toward, not away from, weakened zonules

Zonular stress is minimal when lens material is separated from the capsule. Complete hydro dissection is essential

A capsular tension ring alone is not sufficient if the zonular defect is larger than 5h

Surgical plane for subluxated lens should be individualised.


Thank
You