



# Cortical Clean Up and Polishing Posterior Capsule

By

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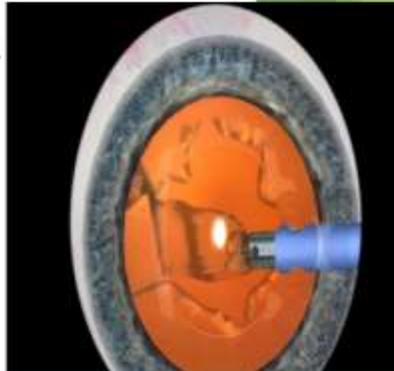
( يرفع الله الذين آمنوا منكم  
والذين أوتوا العلم درجات )

صدق الله العظيم

( سورة المجادلة آية 11 )

## Use of Irrigation and Aspiration

- ▶ For removing soft lens material
- ▶ For removing viscoelastics



## Importance

- ▶ Reduce risk of inflammation
- ▶ Reduce risk of IOP elevation
- ▶ Less chance of PCO

**Cortical removal is important to minimize postoperative inflammation and achieve good centration of the IOL. Cortex should be removed from the periphery to the center in the subincisional area.**



## Co-Axial hand piece

- ▶ Straight tip
- ▶ Angled tip
- ▶ J-shaped tip

### I/A Tip materials

- ▶ Metal
- ▶ Silicone



## Foot Pedal

- ▶ Position-1 : Irrigation
- ▶ Position-2 : Irrigation & Aspiration

## Phacodynamics

- ▶ Vacuum
- ▶ AFR
- ▶ Irrigation

## Machine parameters



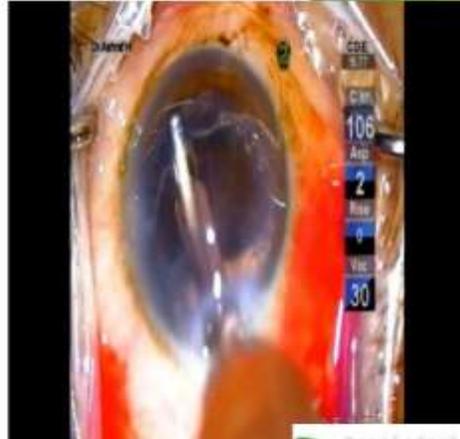
## Techniques

- ▶ Enter AC with the aspiration port facing up
- ▶ Engage the cortical material under the anterior capsule



## Techniques

- ▶ Hold and sweep tangentially
- ▶ Pull the cortical material to the center with low vacuum
- ▶ Increase vacuum to aspirate the cortex



## Management of sub-incisional cortex

- ▶ Bi-manual I/A
- ▶ Angled I/A tip or J-tip
- ▶ Rotate the IOL after implantation to release residual cortex

## Advantage of using Bi-manual

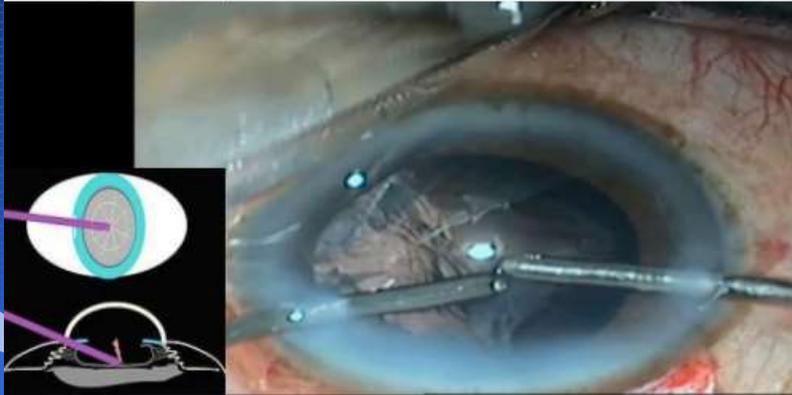
- ▶ Safer and easier removal of lens cortex
- ▶ Easy to remove the sub-incisional cortex
- ▶ Less risk of wound distortion

## Capsular Polish

- ▶ Reduced aspiration rate and vacuum
- ▶ Place port on posterior capsule
- ▶ Gentle sweeping
- ▶ Avoid lifting the tip when polishing

## Complications

Capsular rupture



**The capsular rupture occurred more often during the cortical removal than during the phacoemulsification.**

**The surgeon must avoid fast maneuvers and carefully watch for wrinkles in the posterior capsule indicating that aspiration has engaged the posterior capsule.**

**If the posterior capsule is torn.**

- **Stabilize the capsule with a Viscoelastic material and then to remove the cortex utilizing a dry technique.**
- **Vitreous presentation may require a minimal anterior vitrectomy, followed by the reinjection of a Viscoelastic material before continuation of cortical removal.**

➤

*If an anterior capsular tear has extended toward the equator.*

➤ **It is best to remove the cortex elsewhere before tackling the cortex adjacent to the tear.**

➤ **In this situation, the surgeon should be fill the bag with a Viscoelastic material and to place a single-piece lens within the bag.**

❖ **Cortical capsular adhesions may occur .**

❖ **They may require additional hydrodissection or Viscodissection for cleaving adherent cortex off the equatorial or posterior capsule.**

*In the face of severe positive pressure.*

➤ it may be necessary to inflate the capsular bag with a Viscoelastic material and remove the cortex by means of a dry technique with a straight and a curved cannula through the main incision or a separate stab incision.

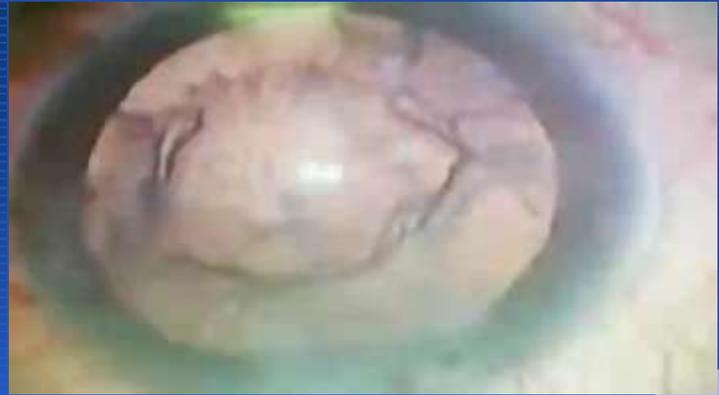


**When a zonular dialysis is present.**

➤ **Cortex should not be stripped in the usual radial direction perpendicular to the dialysis. but parallel to the dialysis, which will reduce stress on the remaining intact zonules.**

**Take Home Message**

- ▶ Use of Bi-manual is safe and easy
- ▶ Hold cortex and move tangentially with low vacuum
- ▶ Aspirate cortex in center with full vacuum
- ▶ Aspiration port always facing up





Thank You!

