

المؤتمر السنوي للجمعية المصرية  
INTERNATIONAL CONGRESS OF THE  
EGYPTIAN OPHTHALMOLOGICAL SOCIETY  
**EOS 2023**



**5 pearls in Cataract with  
Corneal Co-morbidity**

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No Financial Interest

## What is compromised cornea?

- I. Any cornea which does **not** look **healthy**???
- II. **Systemic diseases** that affect the cornea.
- III. **Previously operated** eye in general.
- IV. **Postrefractive surgery**.

# What are the pearls of cataract surgery in compromised cornea?

## 1-Preoperative evaluation

- Documentation of **the pathology** of the cornea.
- **Specular microscopy** for patients with endothelial disease.
- **Systemic diseases** evaluation: DM, collagen diseases,.....

## 2- Operative procedure

OVDs (ophthalmic viscoelastic devices):  
Mandatory in corneal epithelial protection:  
as in

- **Keratitis sicca.**
- **Band shaped keratopathy**
- **Trachomatous pannus**  
(endemic in Middle East)
- **Vascularized cornea.**
- **Arcus senilis**



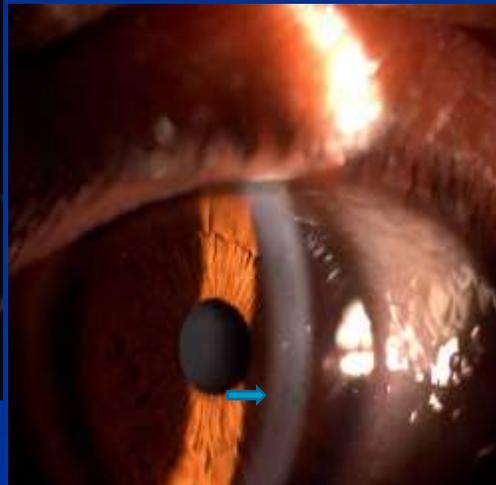
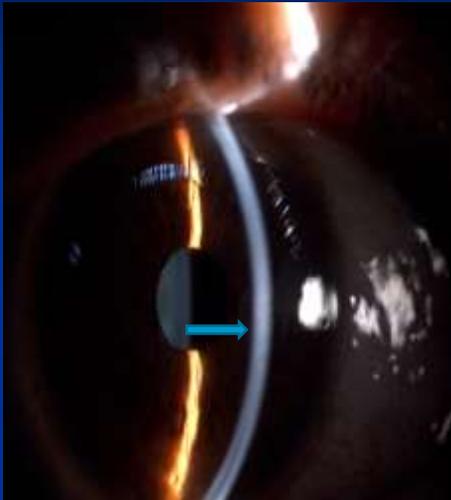
## And in Endothelial disease

- These patients should attract the most attention .
- Explain and document the risks involved to the patient and family members.
- Patients with Fush's dystrophy can visit [www.fuchsdystrophy.com](http://www.fuchsdystrophy.com)
- Soft shell technique proved to give more protection to the endothelium than other OVDS.\*

\*S Archinoff: *New classification of ophthalmic viscosurgical devices* JCRS  
Volume 31, Issue 11, P 2167-71 (November 2005)



## Preoperative Documentation



# Fuch's Endothelial Dystrophy

## 5 Ways for protection

1. *Soft Shell technique*

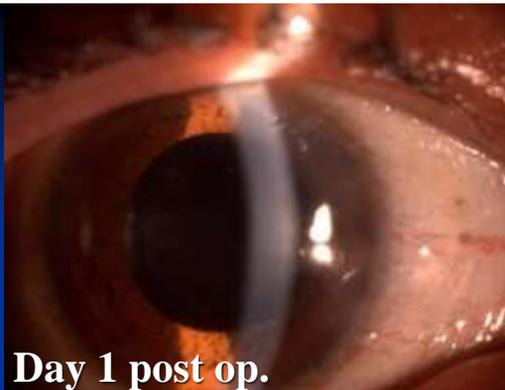
2. *Small air bubble on the endothelium*

3. *Viscodissection*

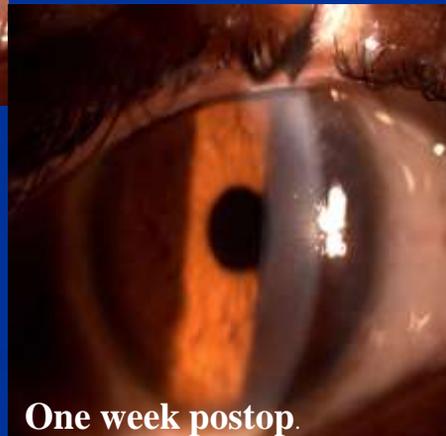
4. *Minimum phaco power.*



5- *Air bubble at the end of the surgery filling 90% of AC.*



Day 1 post op.

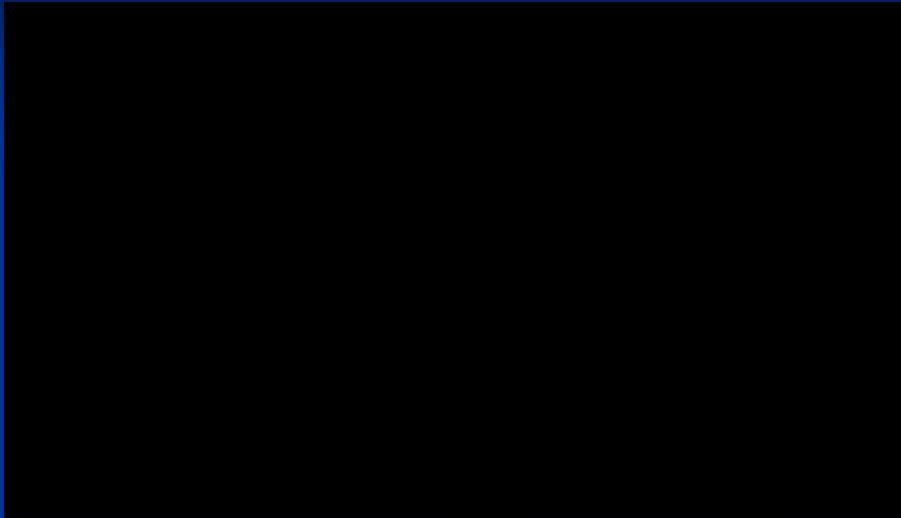


One week postop.

## In all compromised corneas

- Endothelial count **should not be less than 700 cell/mm<sup>3</sup>**, and corneal **thickness is less than 640 microns**
- If less cell count or more thickness do **triple** procedure; (DMEK, phaco, IOL).
- Least phaco **power**.
- Depend more on the **vacuum**.
- Use the **Ozil and Ellipse** for least U/S power .(usually start with 60% torsional only)

*Start with 60% torsional*



1:37 sec

Elmassry

## *Take home message*

- 1- Complete **explanation** to the patient.
- 2- All **preoperative investigations**  
(pachy, ORA, specular microscopy,.....)
- 3- All plans and **tools to protect** the cornea.
- 4- Least **U/S power**.
- 5- Enough **time** for the compromised cornea.



# THANK YOU

*See you next year*

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**EOS 2024**

**24-26 APRIL 2024**

InterContinental Citystars, Cairo, Egypt

