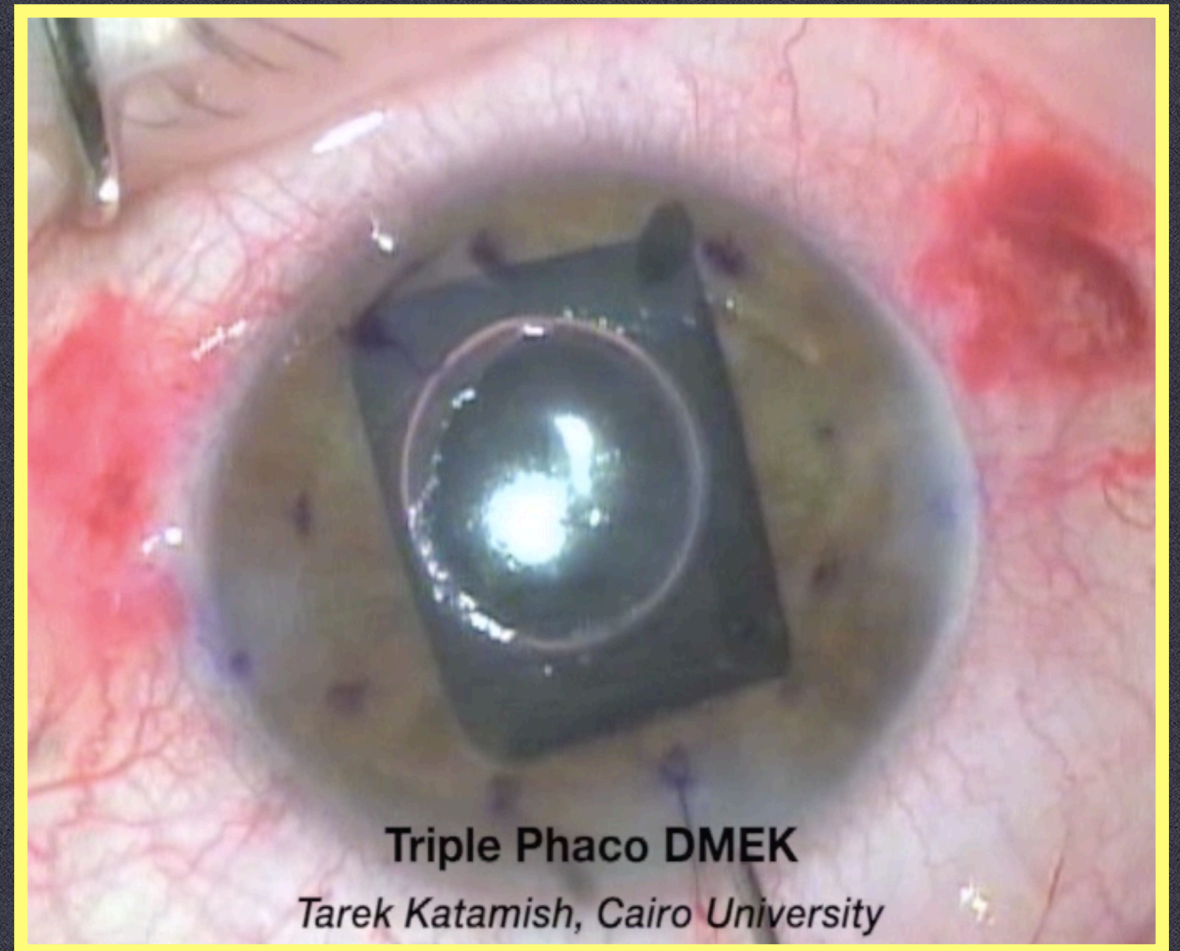


# Triple Phaco DMEK



***Tarek Katamish***  
*Cairo University*



**Fuchs' Endothelial Dystrophy  
+  
Significant Cataract**

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**PAST**

1- PK

+

2- Open sky ECCE

**Triple ECCE**



**Now**

1- EK (DSAEK or DMEK)

+

2- Phaco

**Triple DMEK**





# Advantages of DMEK

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- Rapid visual rehabilitation, minimal change in refractive error.
- Normal unchanged **ocular surface**.
- No sutures related complications:
  - Astigmatism**, vascularization and **graft rejection**,  
stitch abscess, wound leak and lost AC.
- Intact globe resist trauma.
- No intra-ocular complications.
- **Triple procedure** much easier and controlled, premium quality IOL & Toric IOL & accurate biometry.



# Limitations of DMEK

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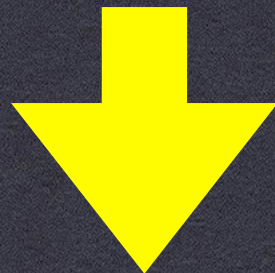
- Challenging and technically difficult.
- DMEK has **tough** learning curve.
- Loss of Grafts: - **Tissue Preparation**  
- **Tissue Manipulations**



# Fuchs' Endothelial Dystrophy + Significant Cataract

## Surgical Decision Making:

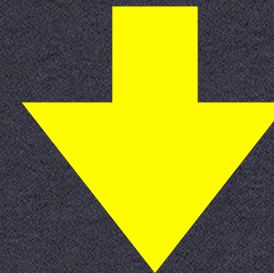
- 1- Epithelial edema
- 2- Pachymetry  $> 640 \mu$
- 3- ECC  $< 500$  cells/mm<sup>2</sup>
- 4- Symptoms



Triple Phaco  
DMEK

## Surgical Decision Making:

- 1- No Epithelial edema
- 2- Pachymetry  $< 640 \mu$
- 3- ECC 700-1000 cells/mm<sup>2</sup>
- 4- No symptoms



Phaco alone  
then  
DMEK (if needed)

Use as a guide  
No set numbers necessitate performing  
Triple procedure



# Fuchs' Endothelial Dystrophy + Significant Cataract

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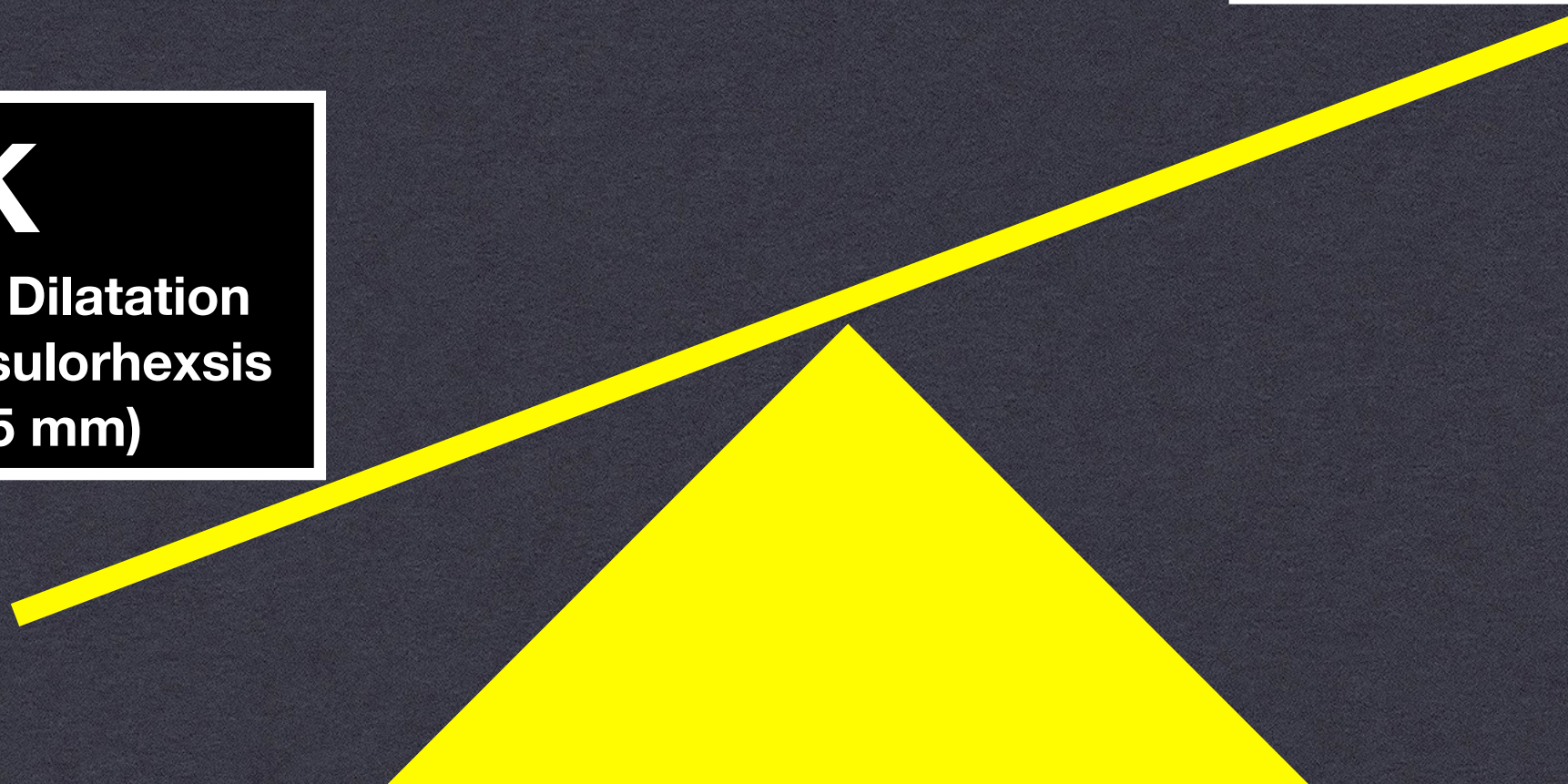
## Guiding Principles

### Phaco/IOL

- Durable Dilatation
- Normal Capsulorhexsis

### DMEK

- Reversible Dilatation
- Small Capsulorhexsis  
(4.0-4.5 mm)





# Fuchs' Endothelial Dystrophy + Significant Cataract

## Pearls for Dilatation

- Use 3 drops of phenylephrine 2.5% **alone**
- **Avoid:**
  - Mydriacil 1%
  - Cyclopentolate
  - NSAID
  - Intracameral epinephrine

## Pearls for Miosis

- Intracameral Miochol with
- iris massage



**Fuchs' Endothelial Dystrophy  
+  
Significant Cataract**

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**Pearls for IOL selection**

**Choose a myopic target (-0.75 to -1.00 D)**



# Fuchs' Endothelial Dystrophy + Significant Cataract

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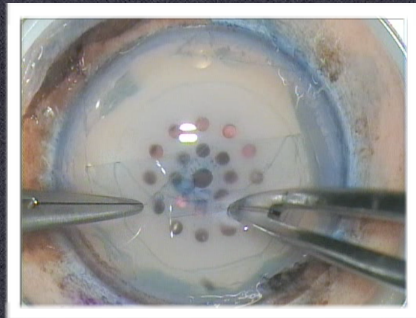
## Pearls for Surgery

- Avoid Iris trauma that may bleed during DMEK
- Take care of Capsule **DON'T take care of Cornea!!**
- Avoid Capsular trauma that may cause vitreous loss during DMEK
- Bag Implantation (Stable IOL)



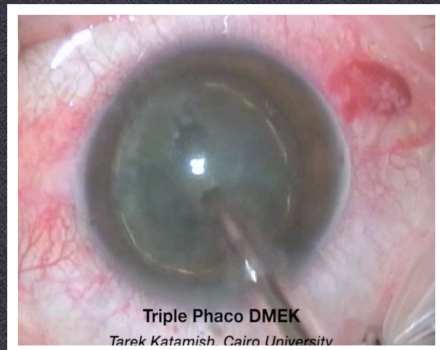
# Triple Phaco DMEK

1



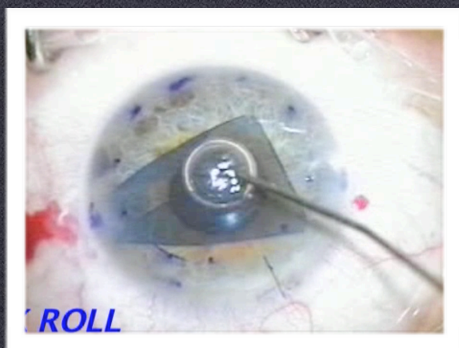
DMEK GRAFT  
PREPARATION

2



PHACO + IOL

3

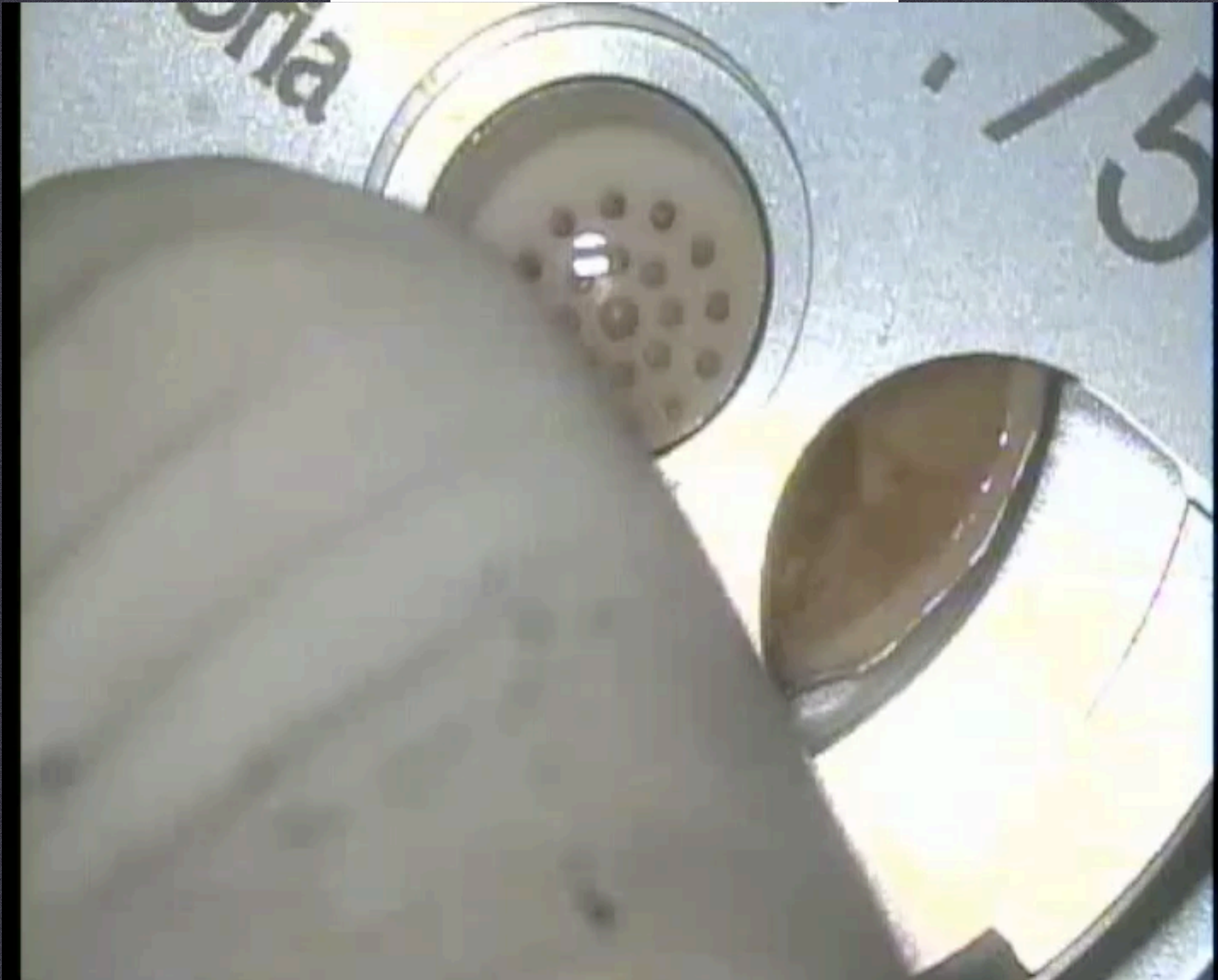


DMEK GRAFT  
INJECTION AND UNFOLDING



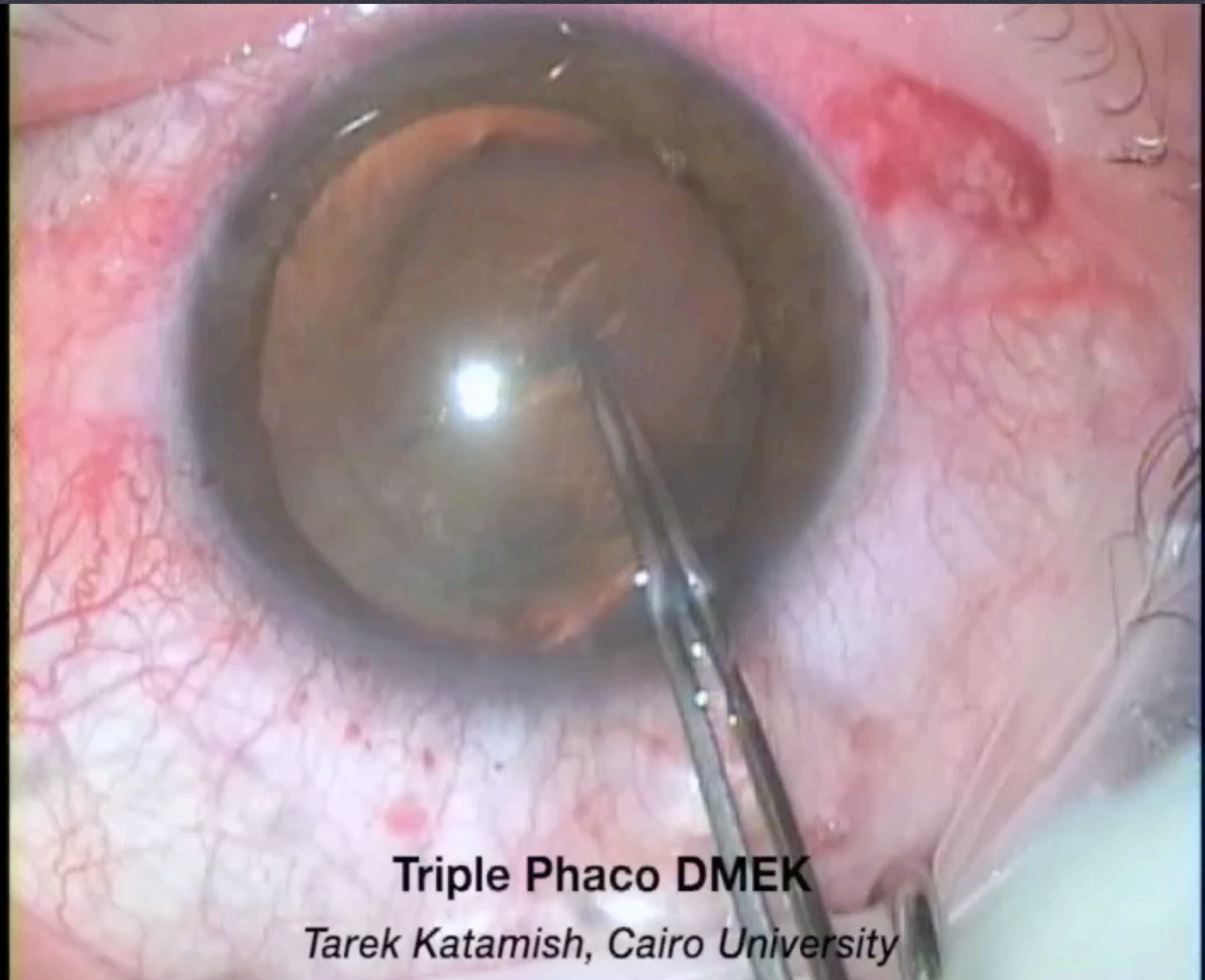
# DMEK

## Tissue Preparation





# Triple Phaco DMEK



**Triple Phaco DMEK**

*Tarek Katamish, Cairo University*



**Triple  
Phaco DMEK**





**DMEK Tissue Preparation**  
*Tarek Katamish, Cairo University*

# THANK YOU

**T. KATAMISH**