



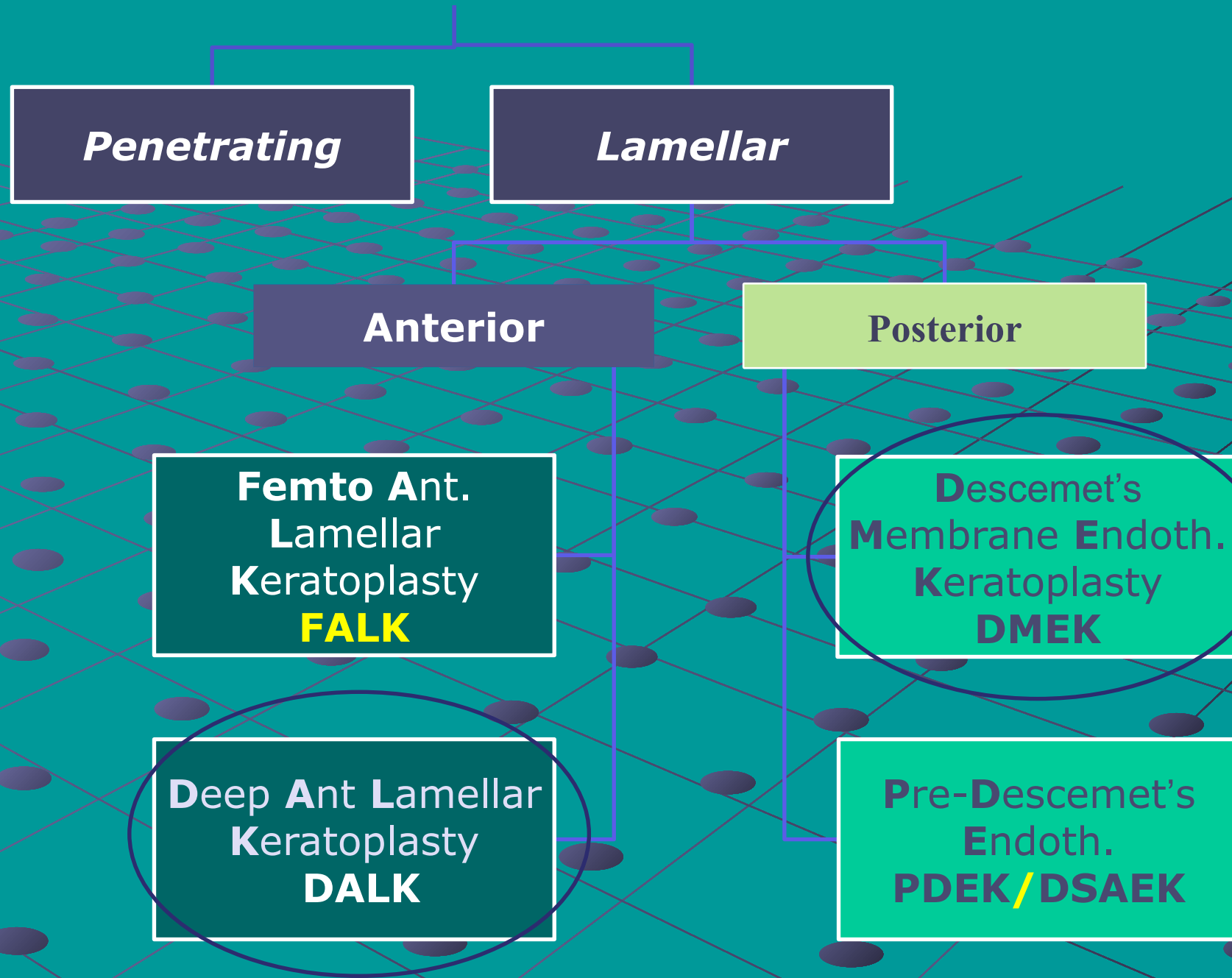
Al-Azhar University



Egyptian Ophthalmological Society

DMEK Preparation New Concept

Prof. Mahmoud Ismail
Al-Azhar University
Cairo – Egypt

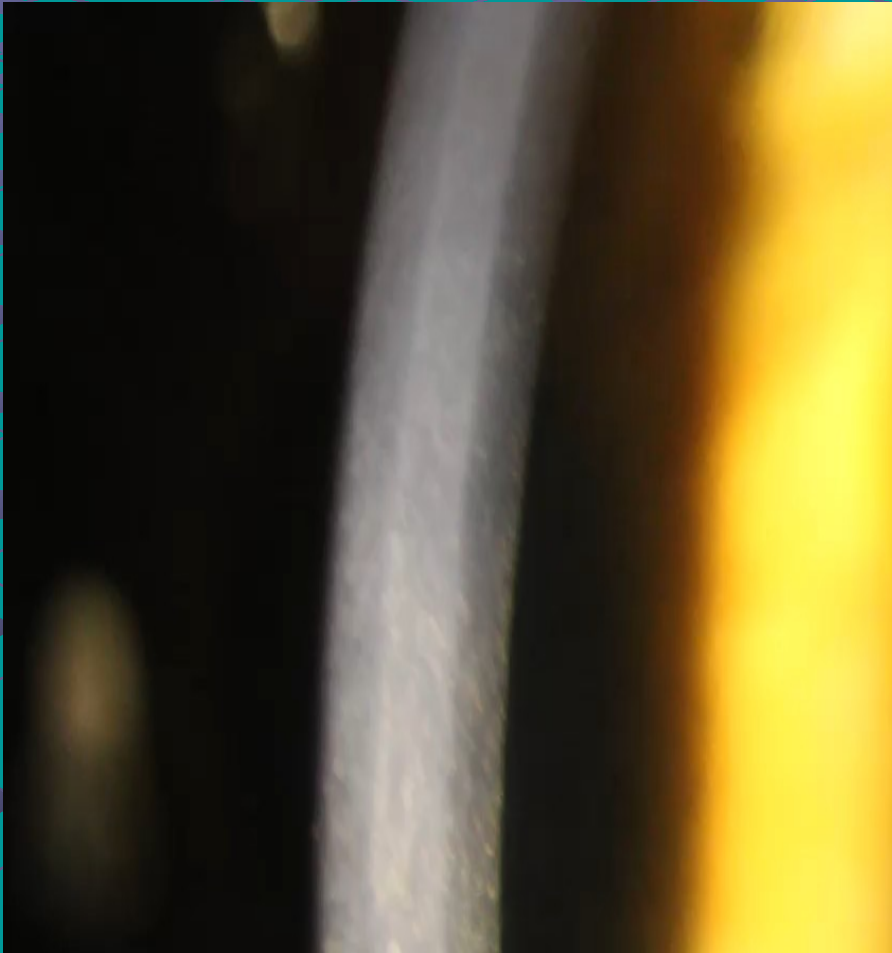


No Previous Experience in Corneal Surgery



- No Sutturrrrrring ... !!
- No Follow-Upsss ... !!
- No Rejectionooooon ... !!

Ant. Segment Surgeon



- Guttae
- Significant Cataract
- Hexagonality !!!
- Low End. Count

Cataract < 1800 Cells/mm

Phaco + DMEK

- Significant Guttae
- Pachymetry > 650 μ
- ↑↑↑ *Hexagonality*

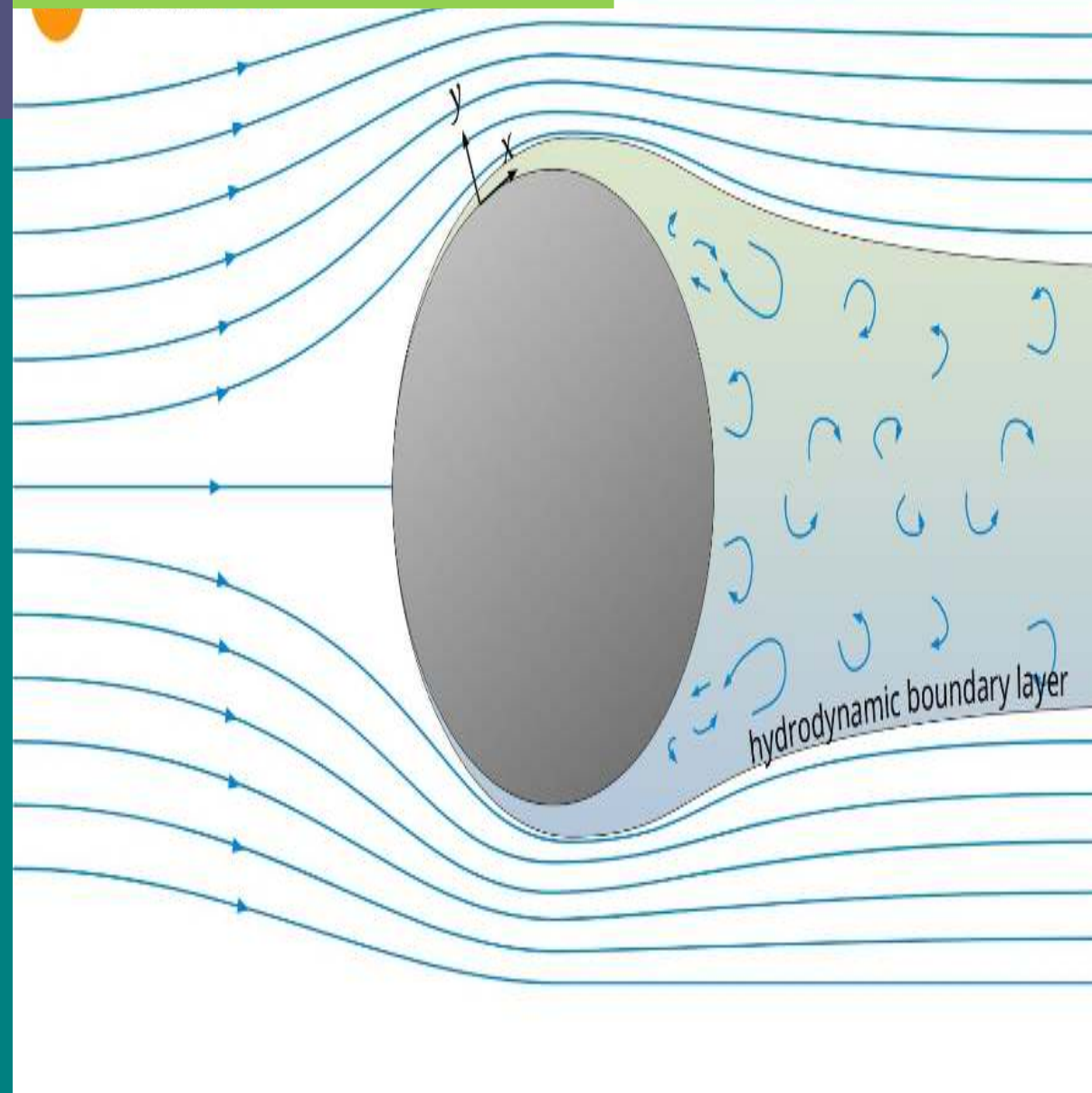
Phaco *Only*

- Few Guttae
- Pachymetry < 650 μ
- ↑ *Hexagonality*

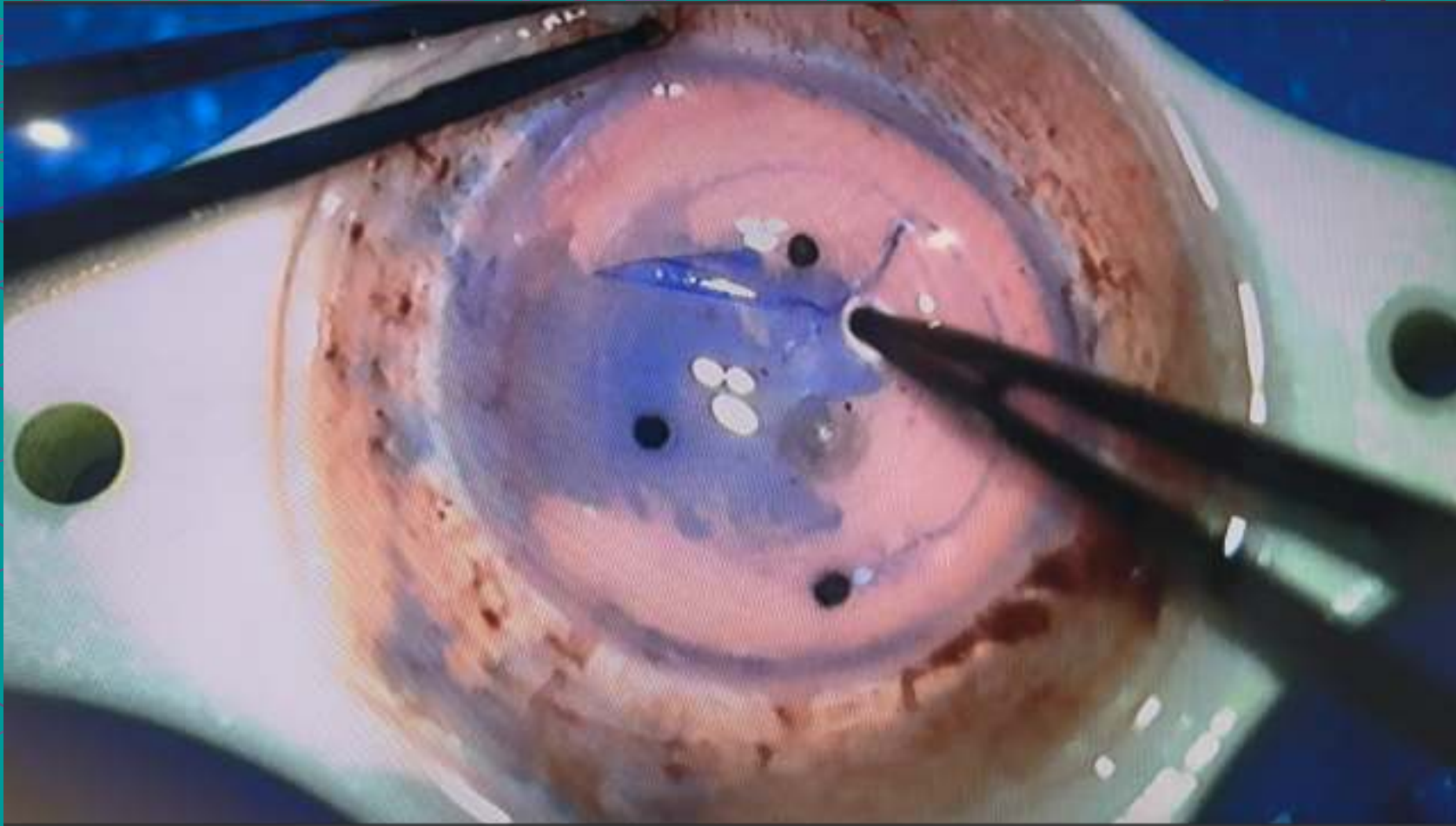
DMEK Graft Preparation

- Easy
- Safe
- Reproducible

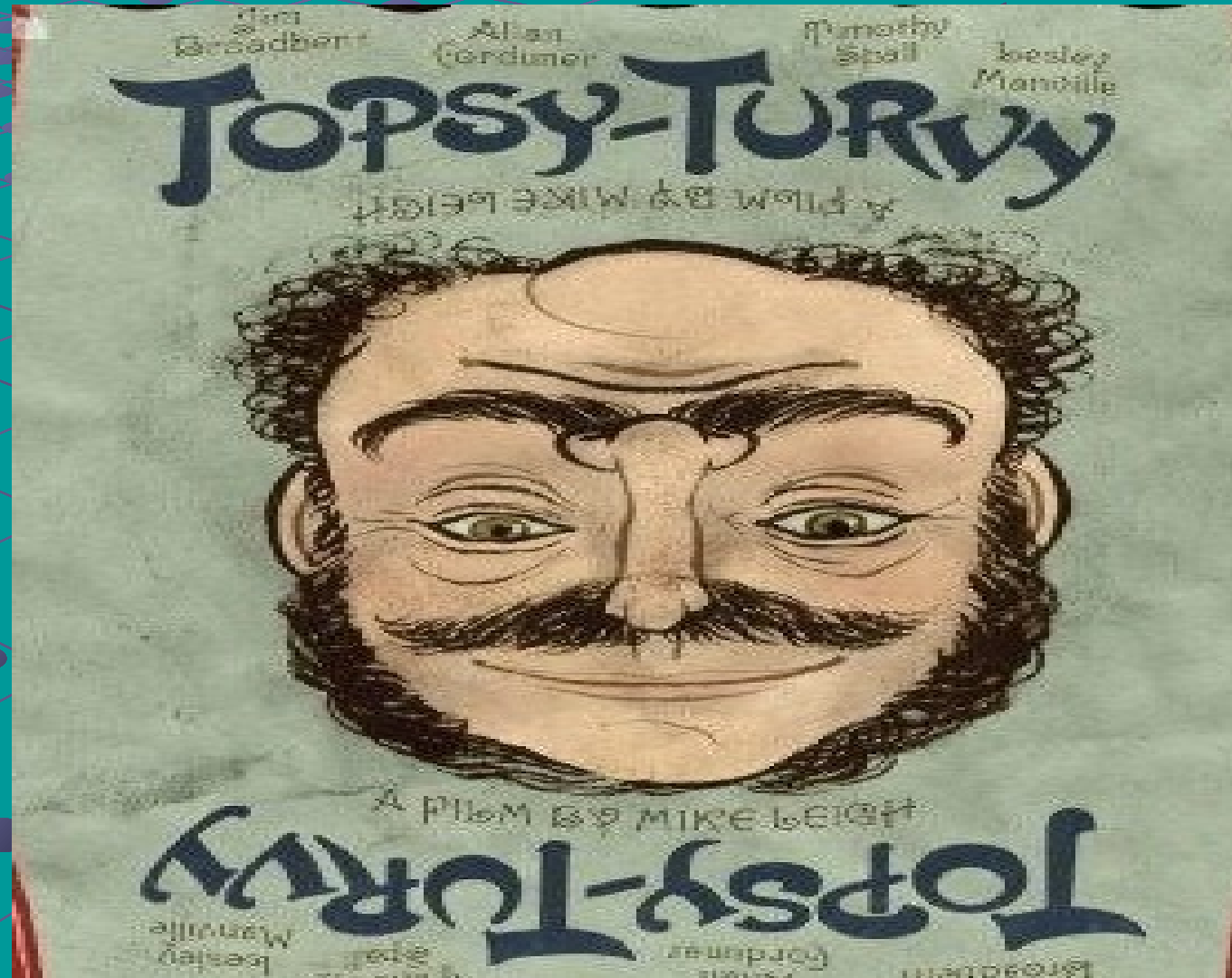
Smooth Separation



Frustrating Graft Preparation



Upside Down



New Device Non Clinical trial

► Cureus. 2025 Jan 2;17(1):e76817. doi:

[10.7759/cureus.76817](https://doi.org/10.7759/cureus.76817) 

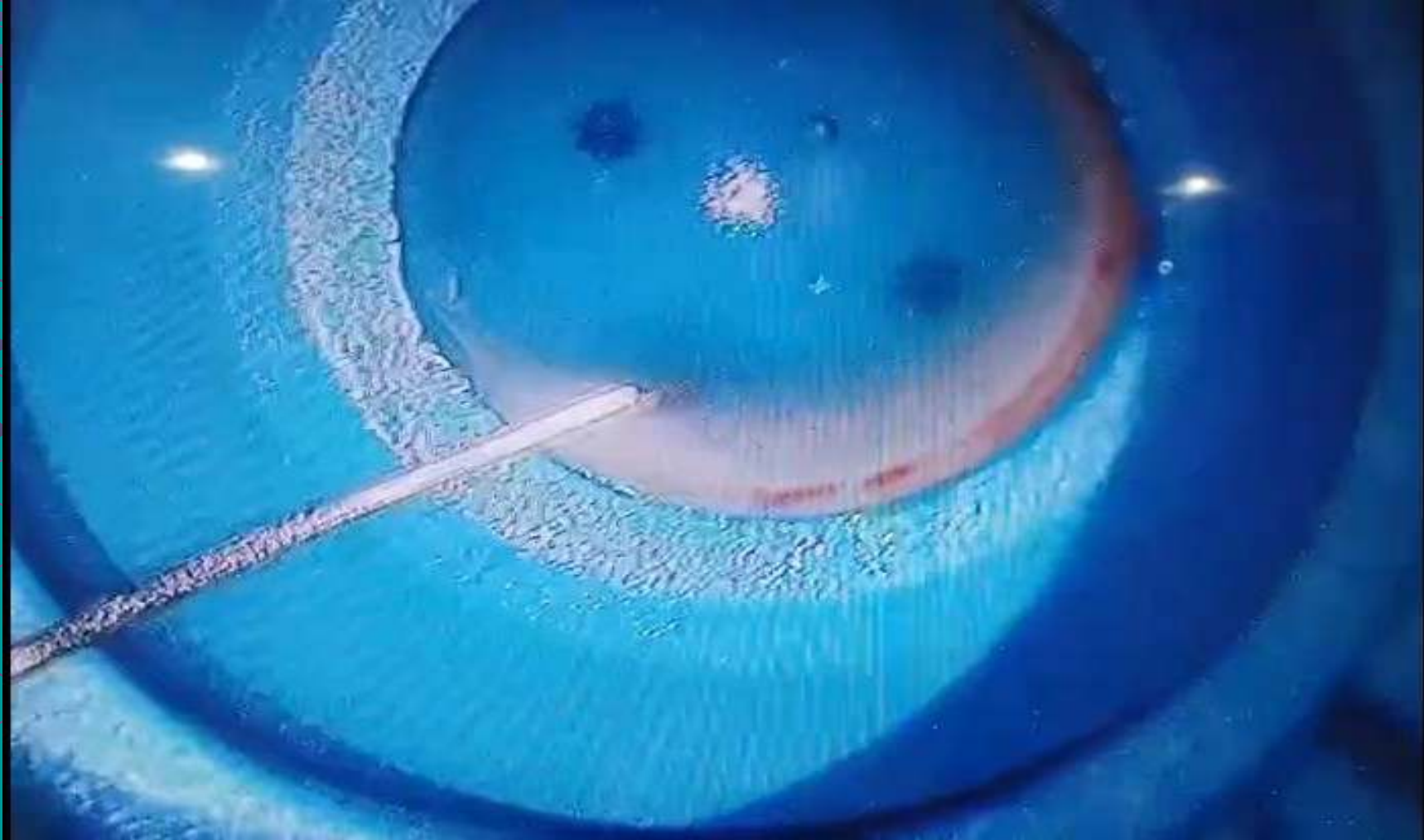
A New Device and Method for Endothelial Graft Preparation in Descemet Membrane Endothelial Keratoplasty (DMEK): A Preliminary Feasibility and Technical Evaluation

[Leiser Franco de Moraes Filho](#)¹, [Cláudia Gomide Vilela de Sousa Franco](#)¹, [David Leonardo Cruvinel Isaac](#)¹, [Ricardo Nogueira Louzada](#)², , [Marcos Pereira de Ávila](#)¹, [Leopoldo Magacho](#)¹

Endothelium Upside Down



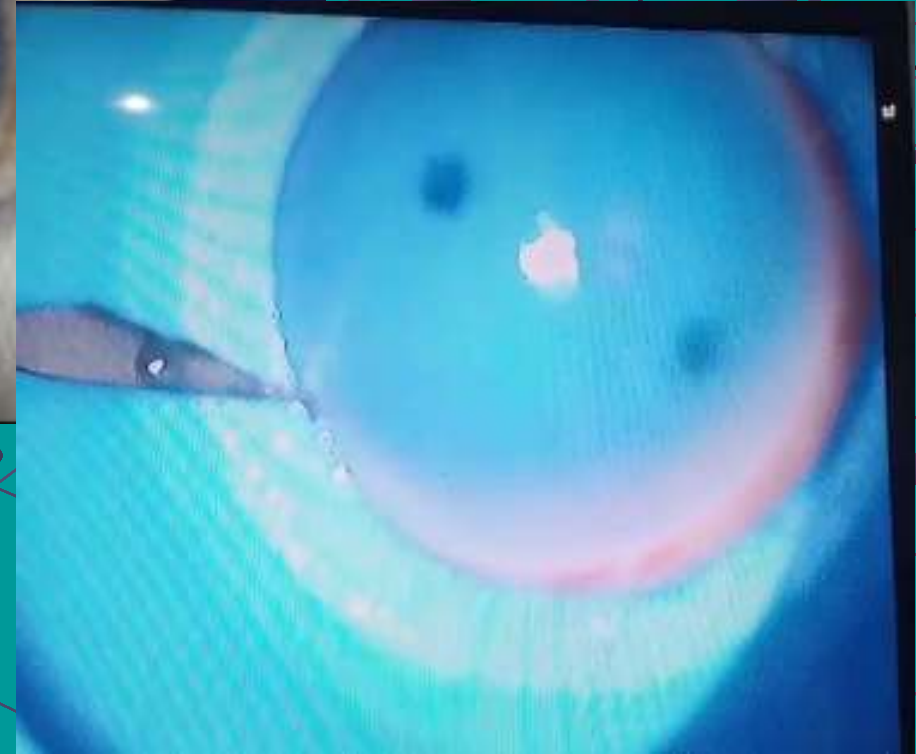
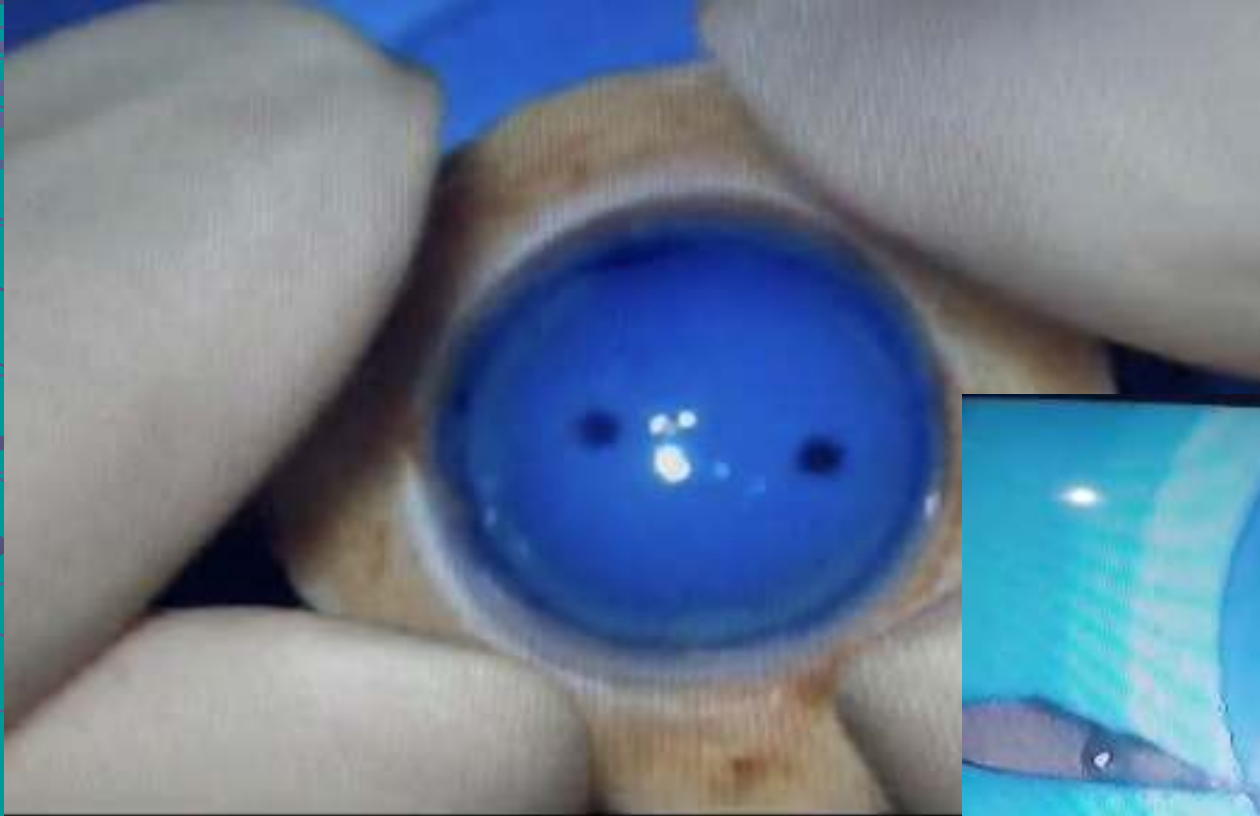
Dissection

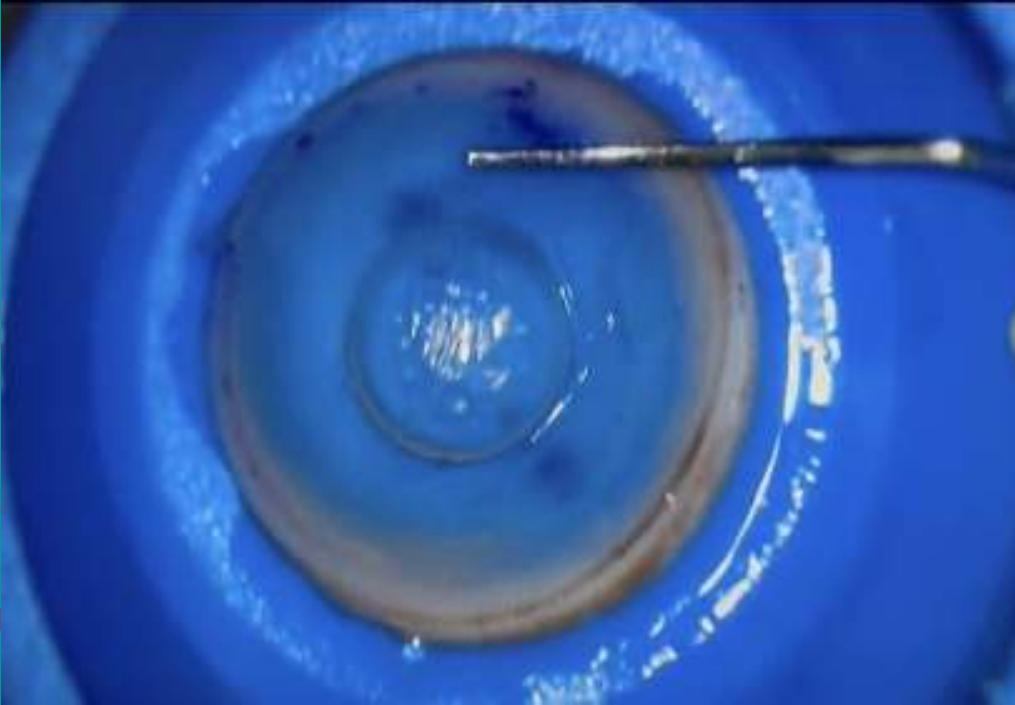
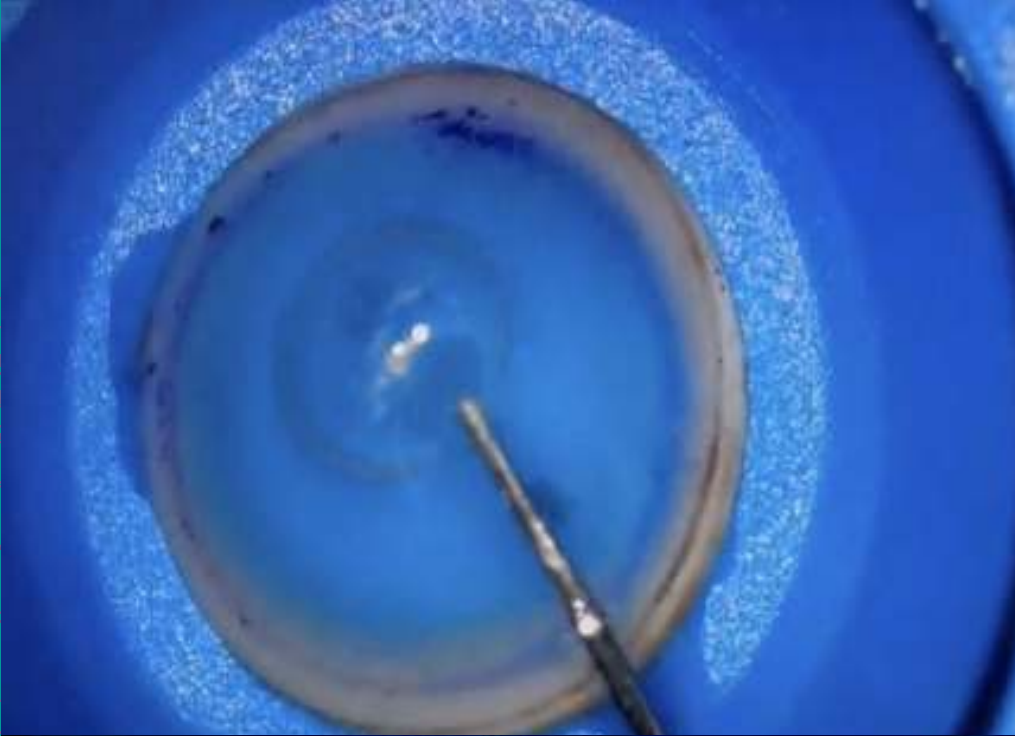


Graft Punch



Step by Step



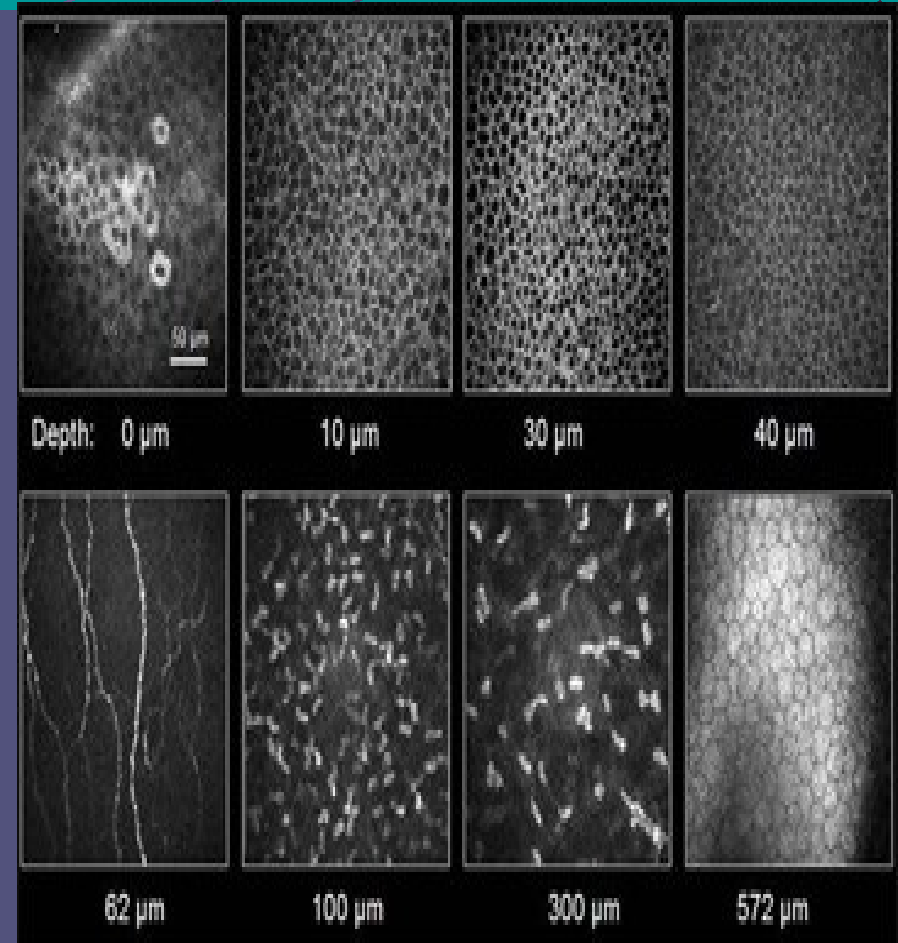


PG2 + leukotrans

Ismail MM, Kaufman H.

Manual versus Microkeratome Flap
Ophtha Archives 2001

- Keratocytic Proliferation
&
- Fibroblastic deposition

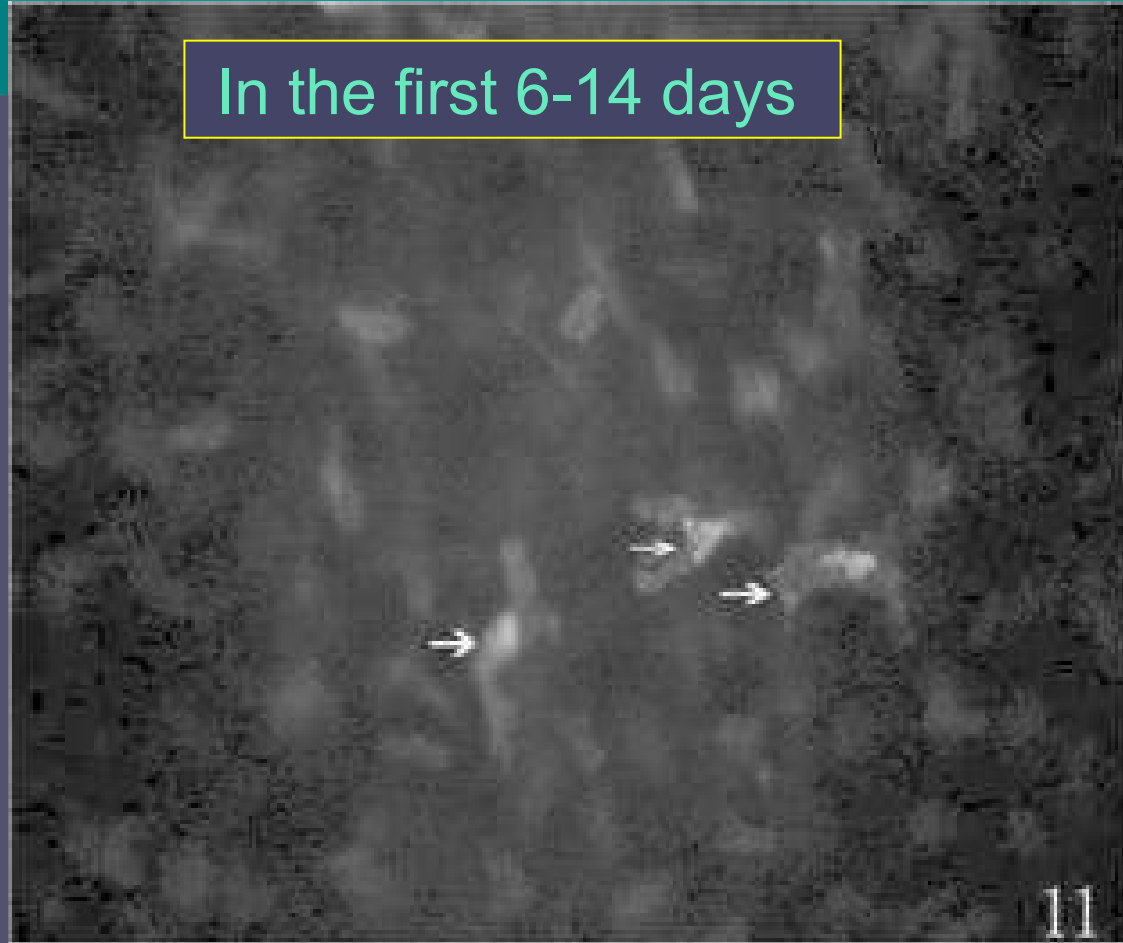


Confocal images

- Keratocytic proliferation
- Activation of prosthesis & Nucleus
- Fibroblastic transformation
- Deposition of Fibrous tissue

= **HAZE**

In the first 6-14 days





INTERNATIONAL CONGRESS OF THE
EGYPTIAN
OPHTHALMOLOGICAL SOCIETY

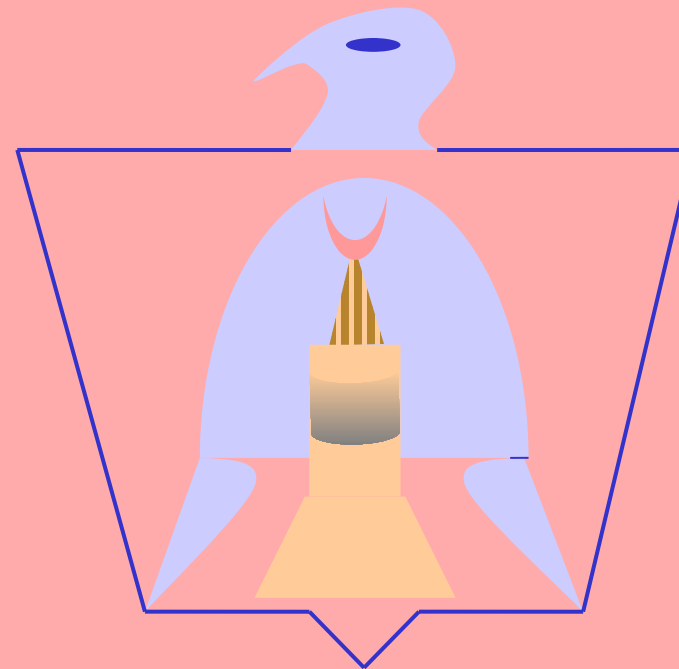


Save the Date

29TH APRIL to 1ST MAY
Intercontinental Citystars,
Cairo, Egypt


eos-egypt.org

Thank you



Al-Azhar University