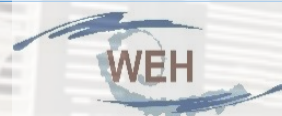


Femto-Assisted Enhancement After Micro-keratome Initial Cut

The “RING CUT”

Nader F. Fawzy, FRCS, FICO, FEBO

Alwatany Eye Hospital, Cairo - EGYPT



Patient Satisfaction after LASIK

- J Cataract Refract Surg. 2014 Mar;40(3):395-402

Long-term follow-up after laser vision correction in physicians: quality of life and patient satisfaction.

Pasquali TA et al

Despite high visual demands, physicians having LVC had a high percentage of good visual outcomes, satisfaction, and quality-of-life improvements.

- J Cataract Refract Surg. 2014 Jul;40(7):1131-8

Patient satisfaction and clinical outcomes with laser refractive surgery performed by surgeons in training.

Nehls SM et al

Laser refractive surgery performed by residents and fellows showed high patient satisfaction and an improved RQL 1-year postoperatively

- Ophthalmology. 2009 Apr;116(4):691-701

LASIK world literature review: quality of life and patient satisfaction.

Solomon KD1 et al

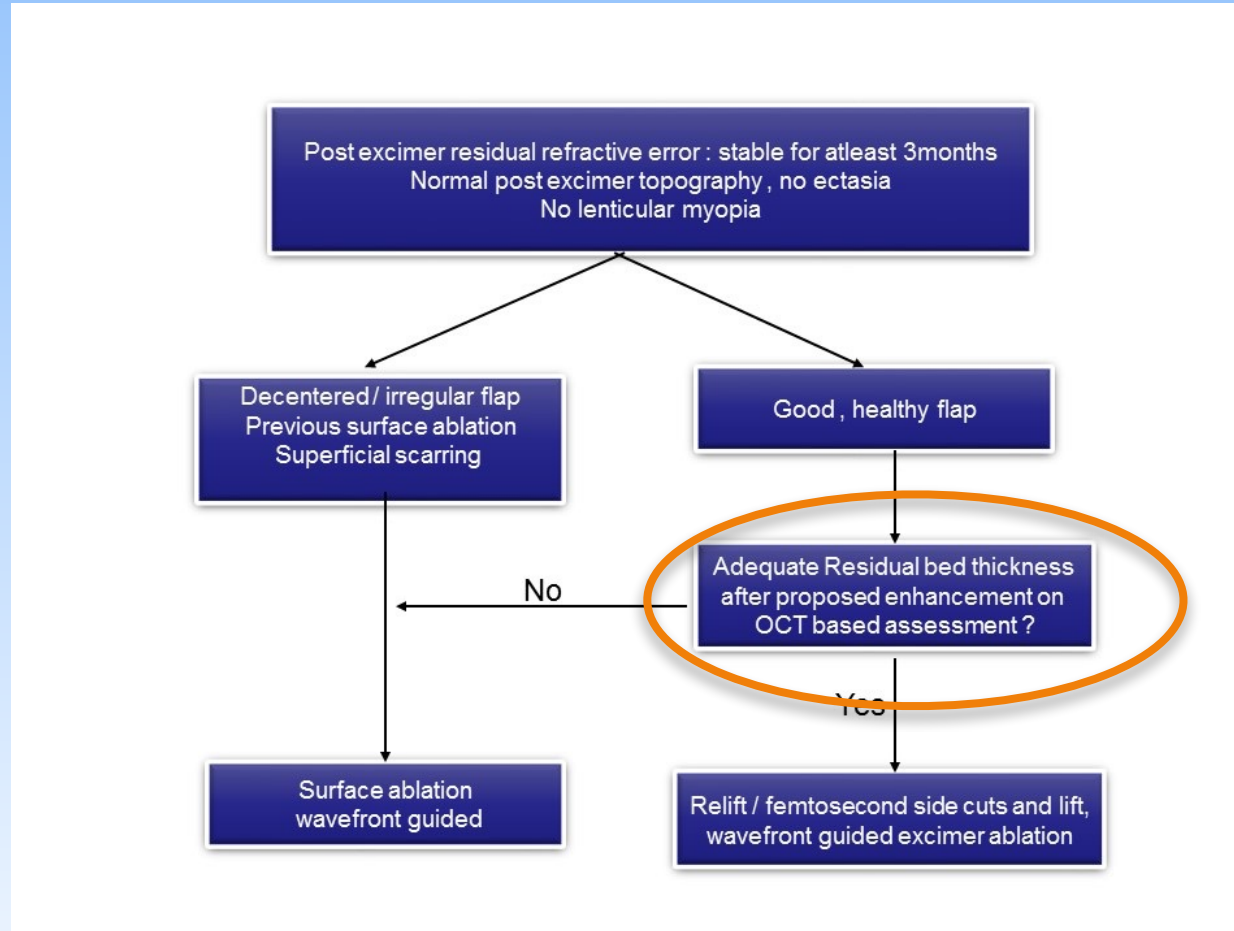
worldwide, an average 95.4% of patients were satisfied with their outcome after LASIK surgery. With 16.3 million procedures performed worldwide, and more than a decade of clinical studies and technological innovation, LASIK surgery should be considered **among the most successful elective procedures**

Is Enhancement needed???

- The overall 1-year incidence of retreatment was 10.5% 288/2485 eyes (Hersh et al, Ophthalmology. 2003 Apr;110(4):748-54.)
- Patients are becoming very demanding
- Progression of myopia
- Regression after treatment

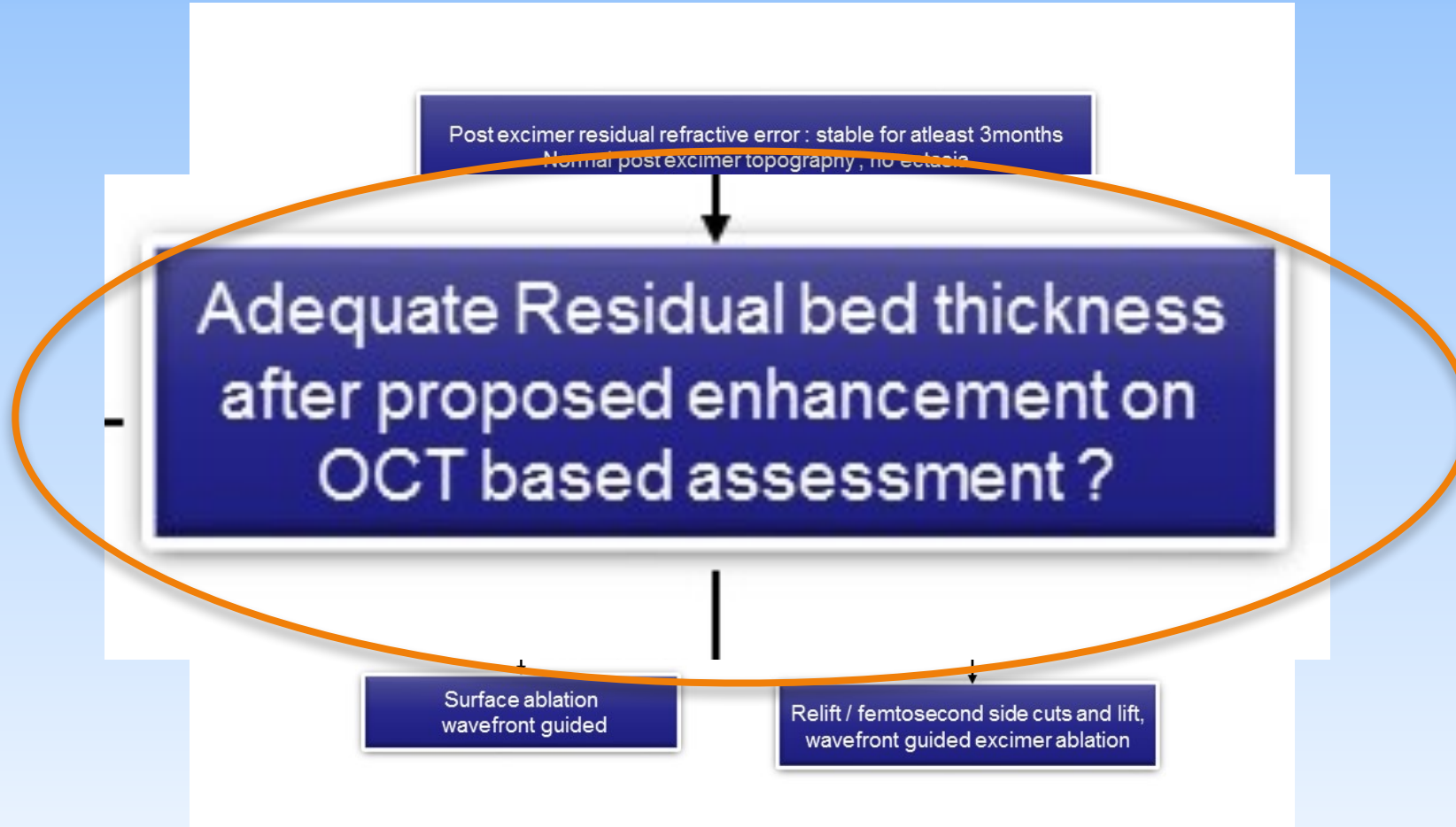
—> Yes, we do need to enhance every once in a while

Management Algorithm



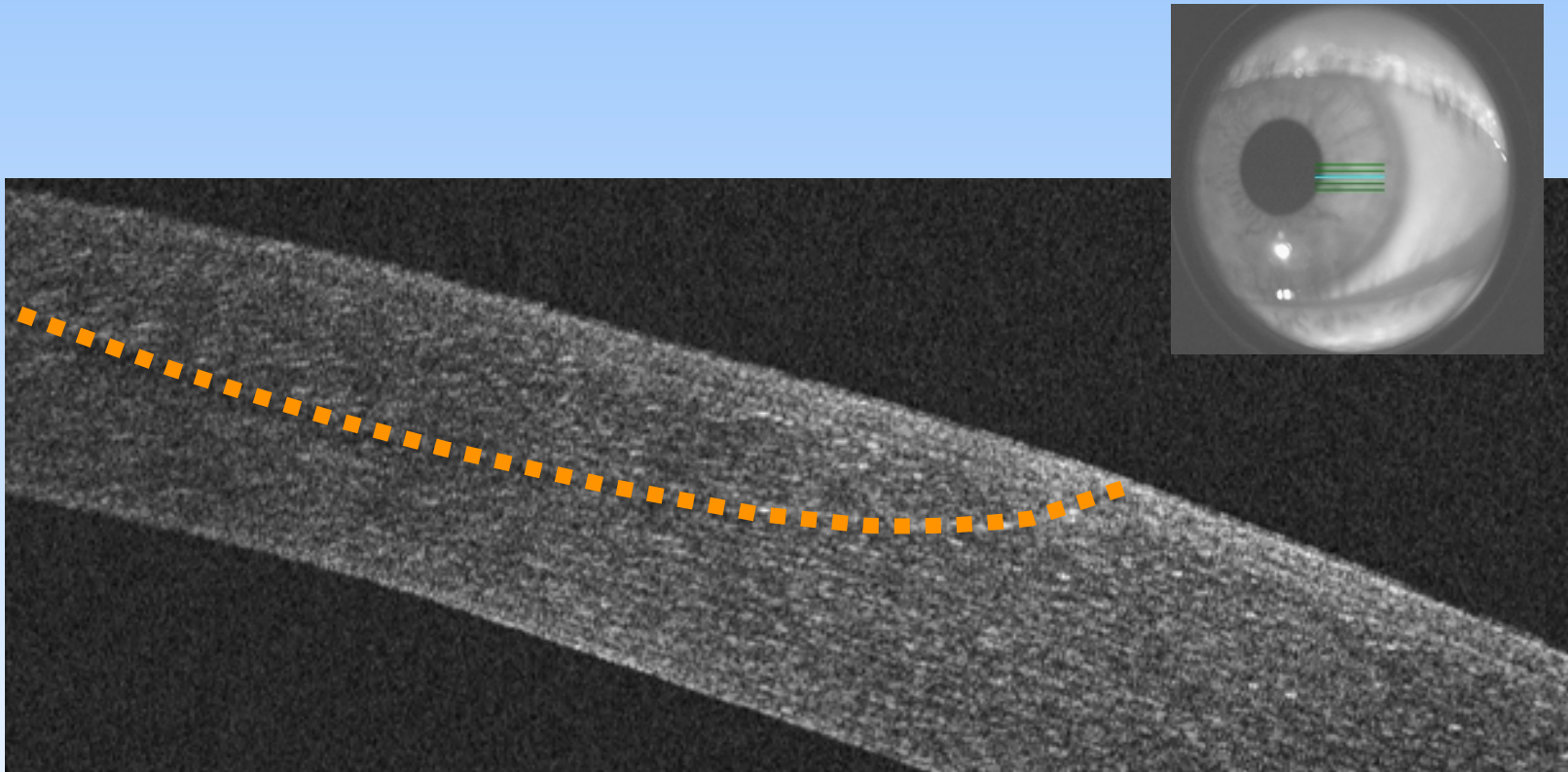
source:aao.org

Management Algorithm

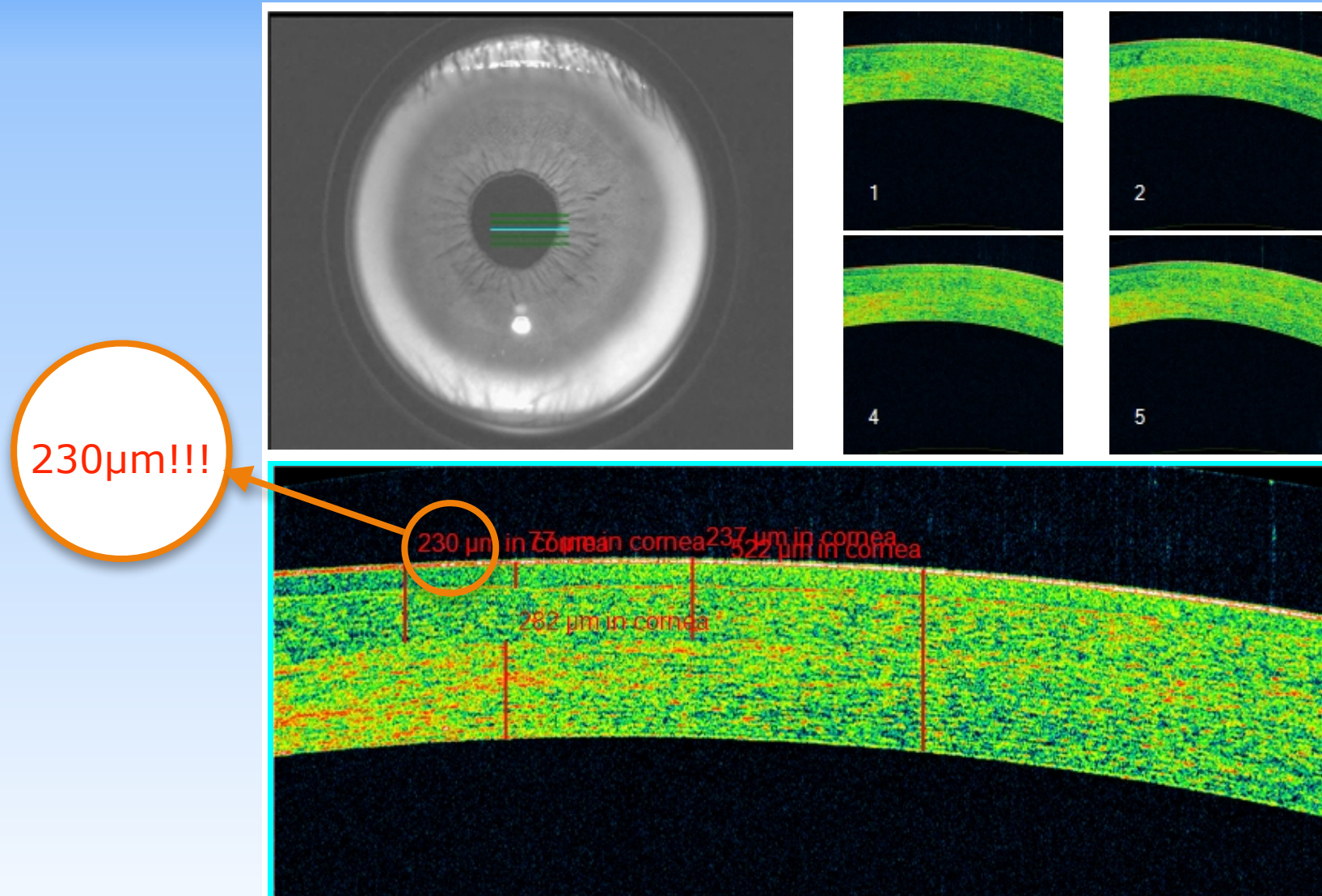


source:aao.org

Preoperative OCT



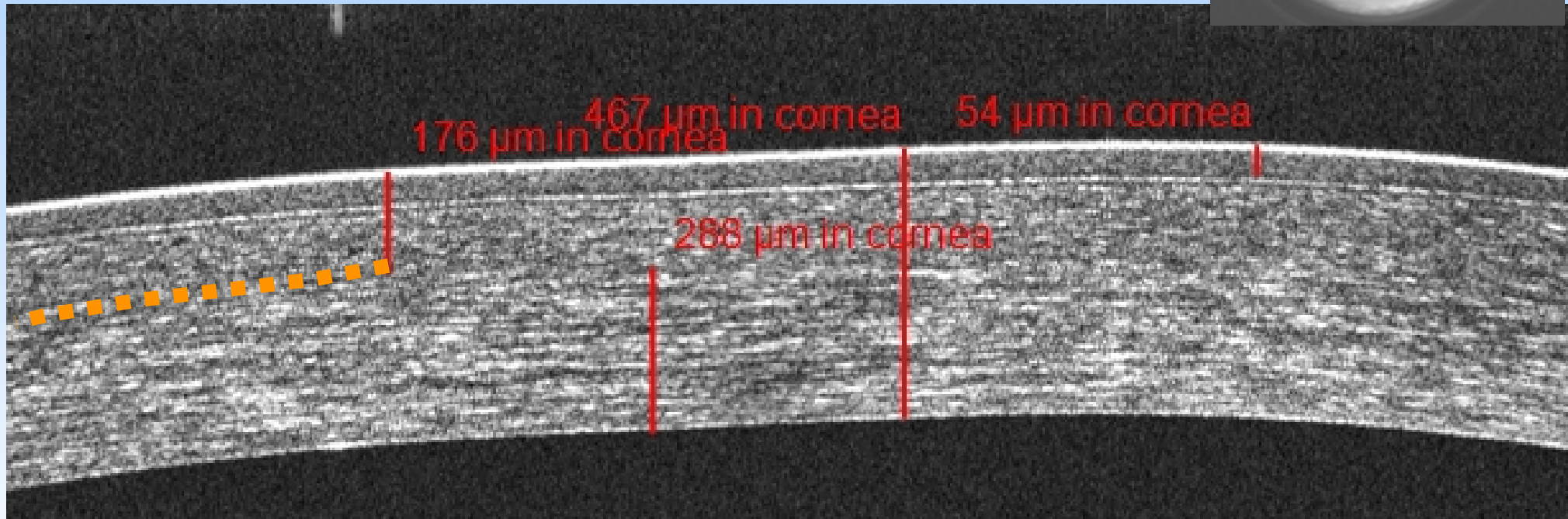
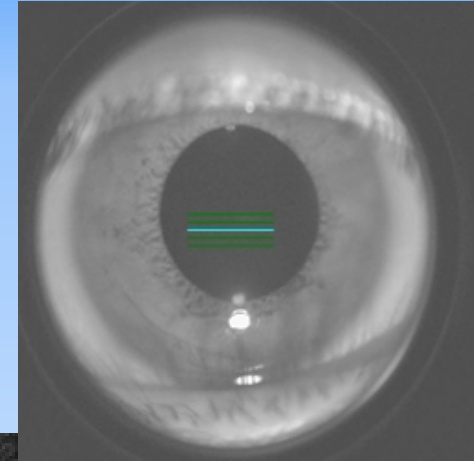
Preoperative OCT



Alternatives to re-lifting the flap

- Surface Treatment (PRK)
(Pain, Haze, Slow Recovery...)
- Cut a New Flap (mini flap) (50 microns apart)
(Double Interface, difficult to aim the depth, corneal tissue loss)

Preoperative OCT

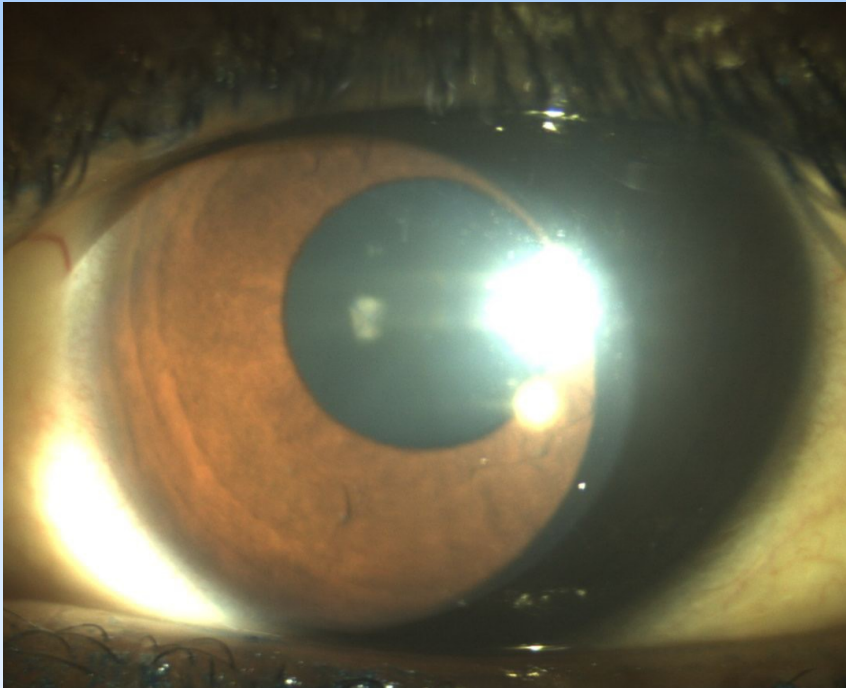


Problems with enhancement (classic approach: Flap re-lift)

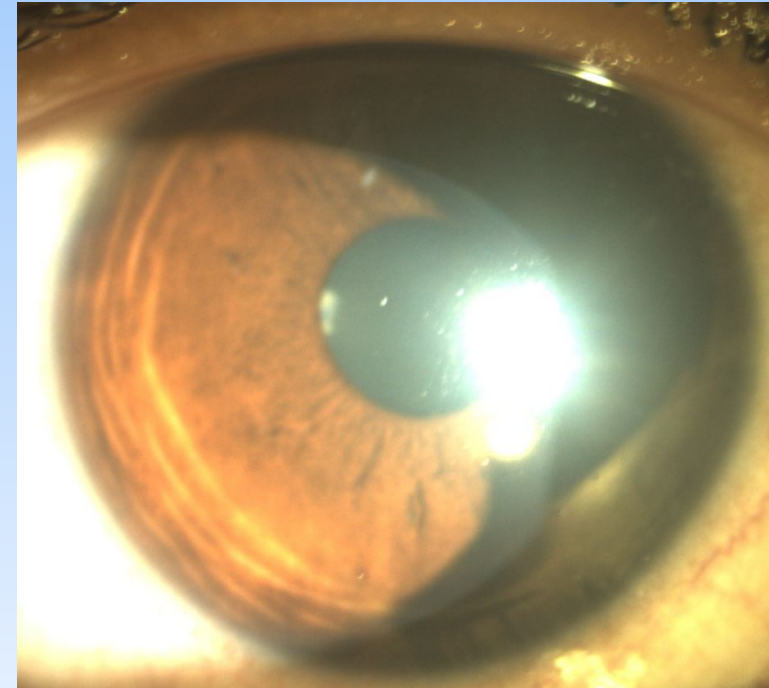
- Finding the edge

Status of Flap Edge

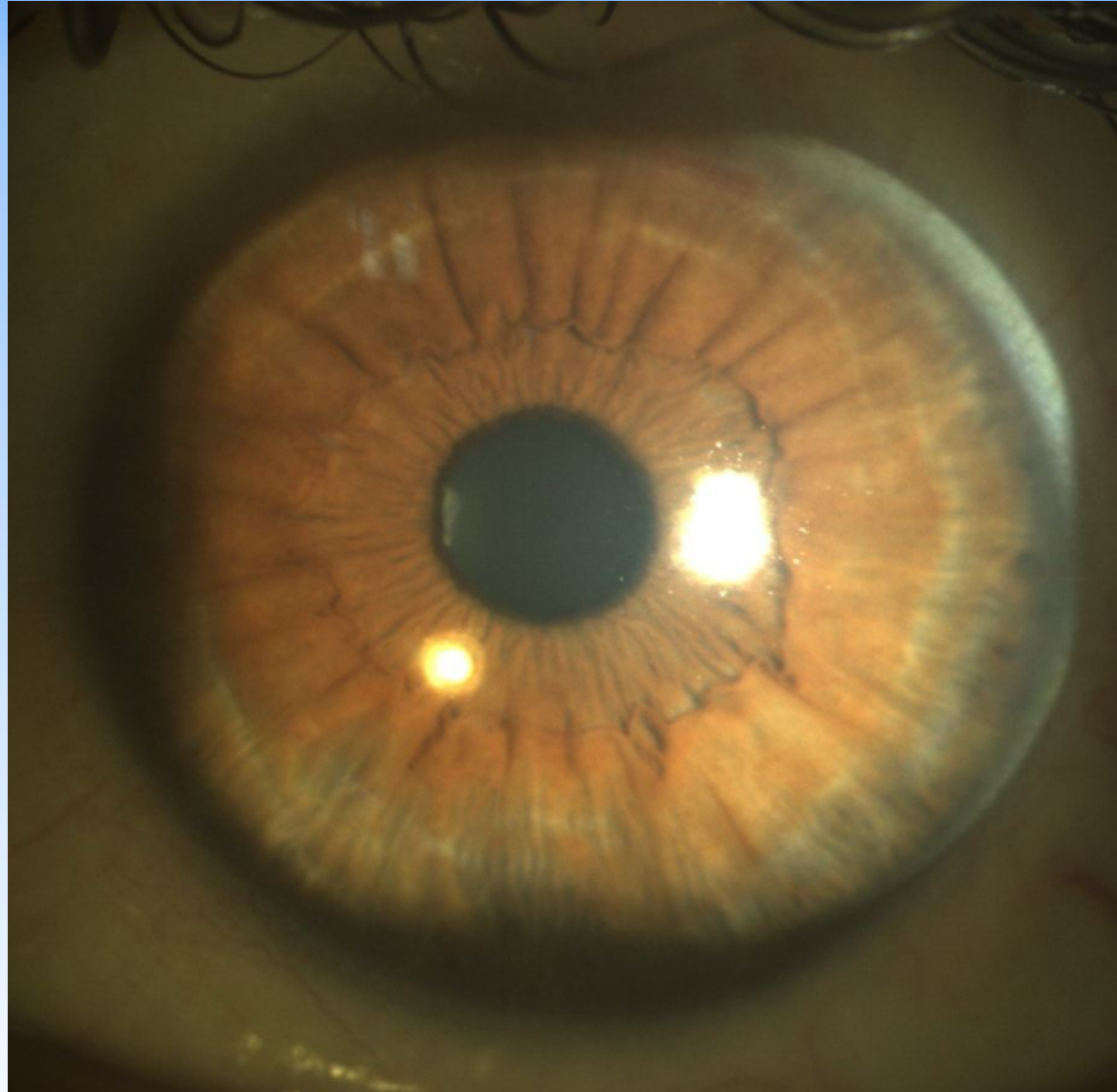
- 1 year post-operative



- 1 day post-operative



Status of Flap Edge

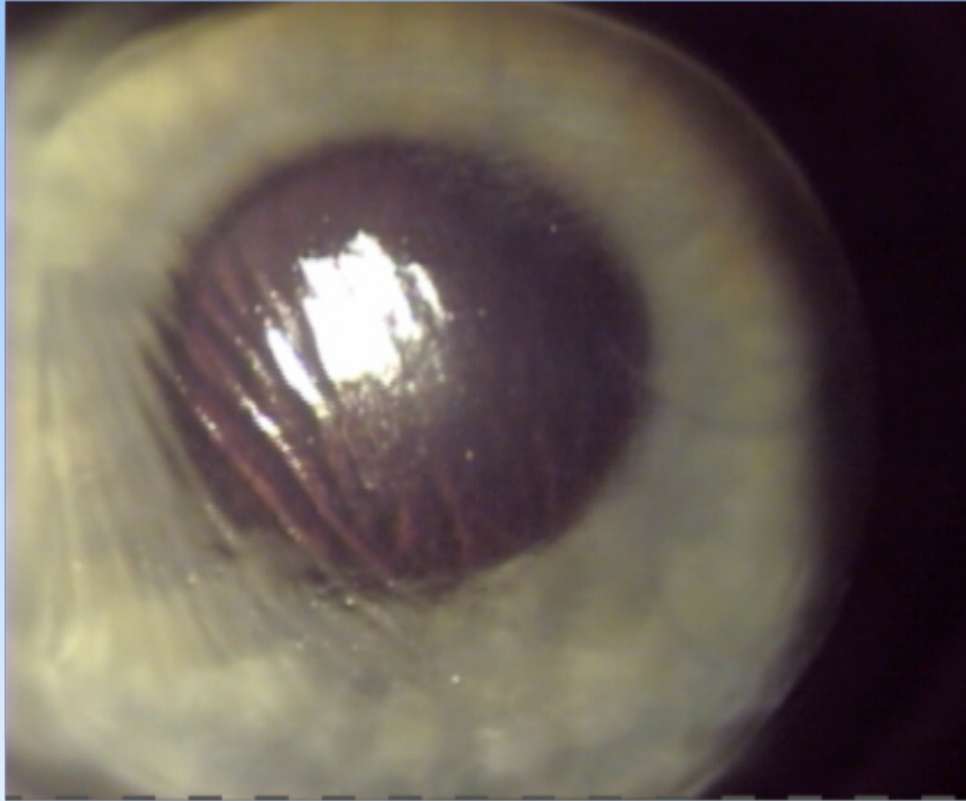


Problems with enhancement

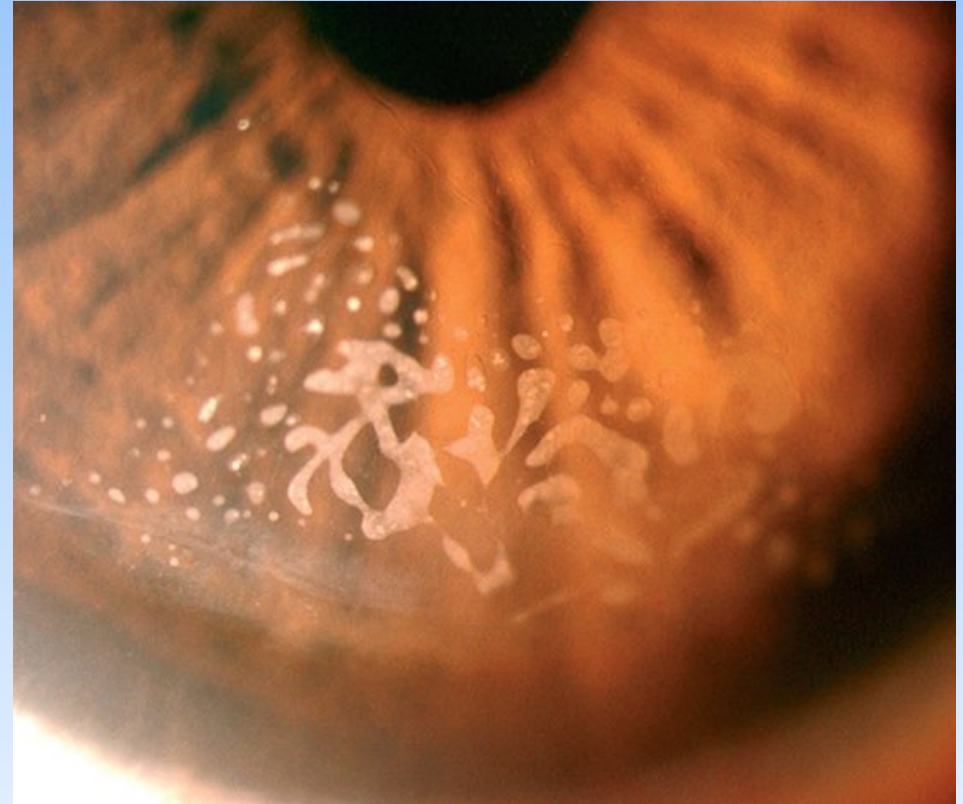
(classic approach: Flap re-lift)

- Finding the edge
- Reputation:
1 time enhancement is just the beginning of many visits...

Postop Issues



- Flap Striae



- Epithelial Ingrowth

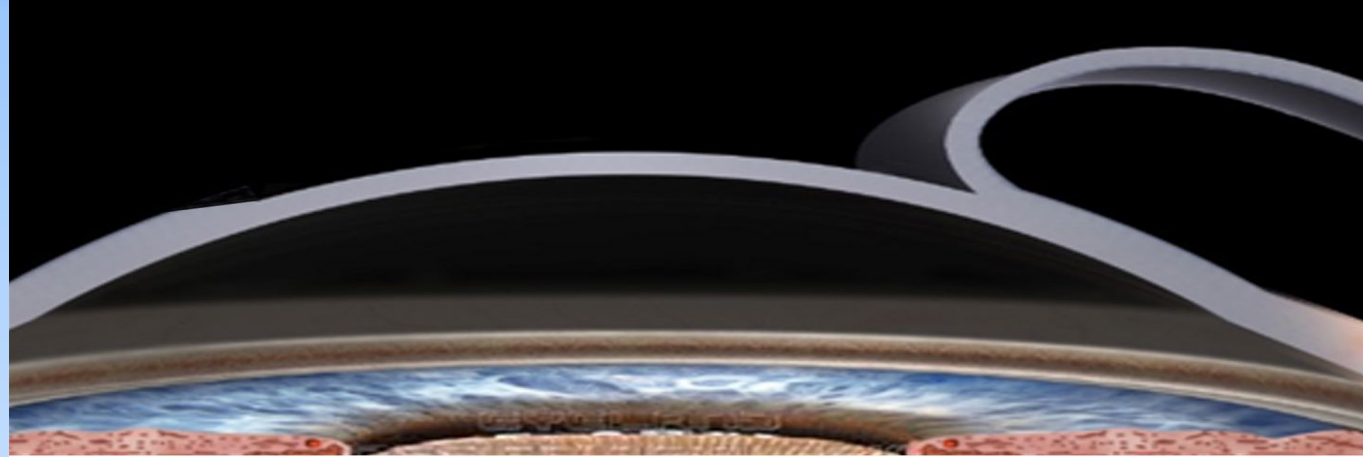
Problems with enhancement

(classic approach: Flap re-lift)

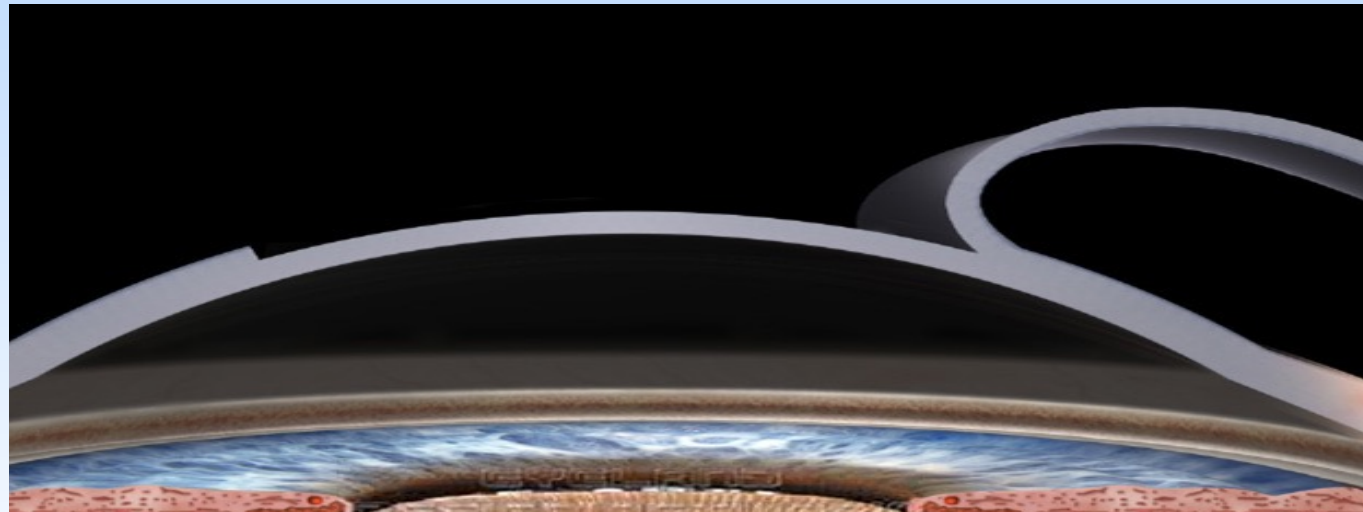
- Finding the edge
- Reputation:
1 time enhancement is just the beginning of many visits...
- Most patients that are coming now needing enhancements had MK Cuts

Status of Flap Edge

- Microkeratome

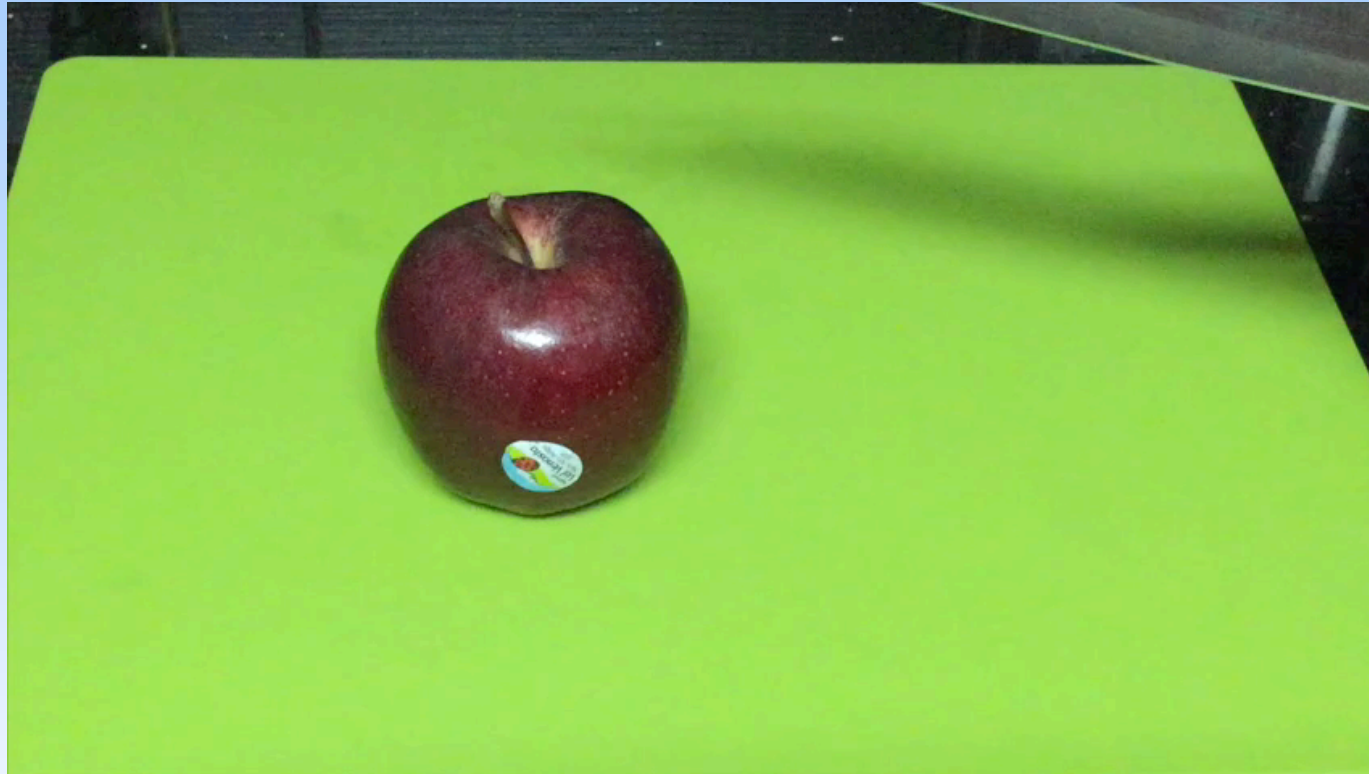


- Femtosecond Laser



Real Life Comparison

MICROKERATOME



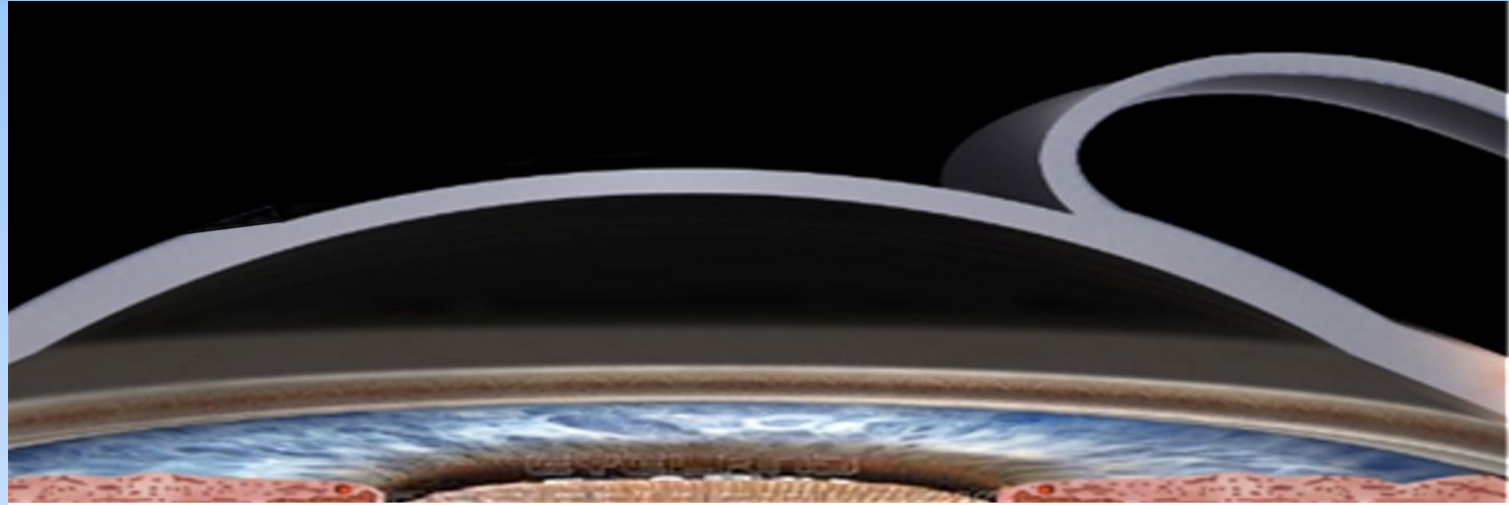
Real Life Comparison

FEMTOSECOND LASER

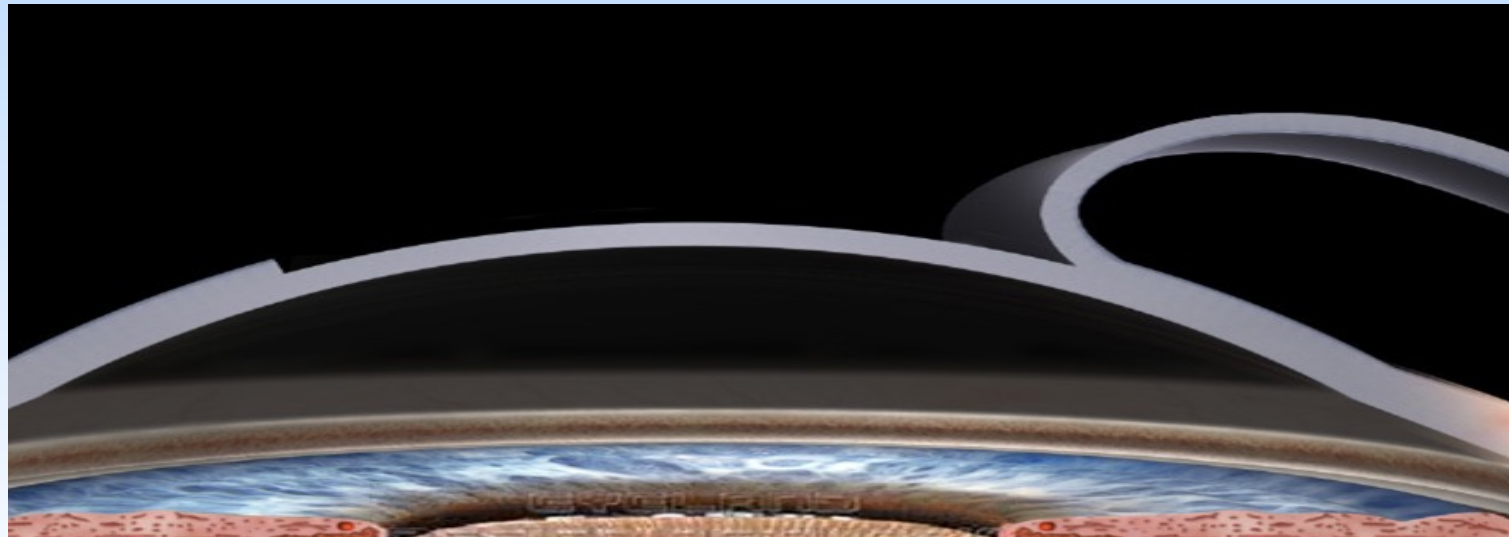


Idea of the RING CUT

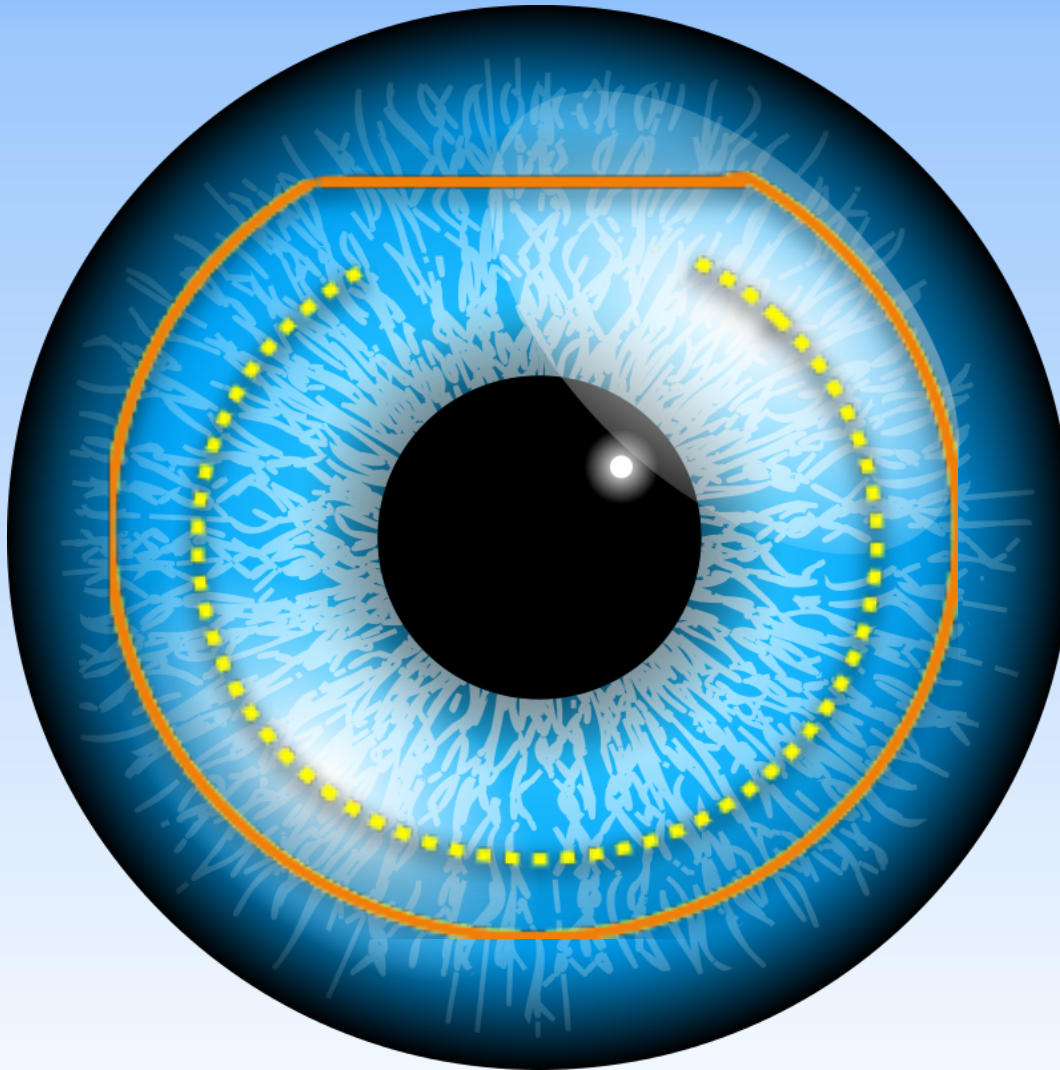
- Microkeratome



- Femtosecond laser



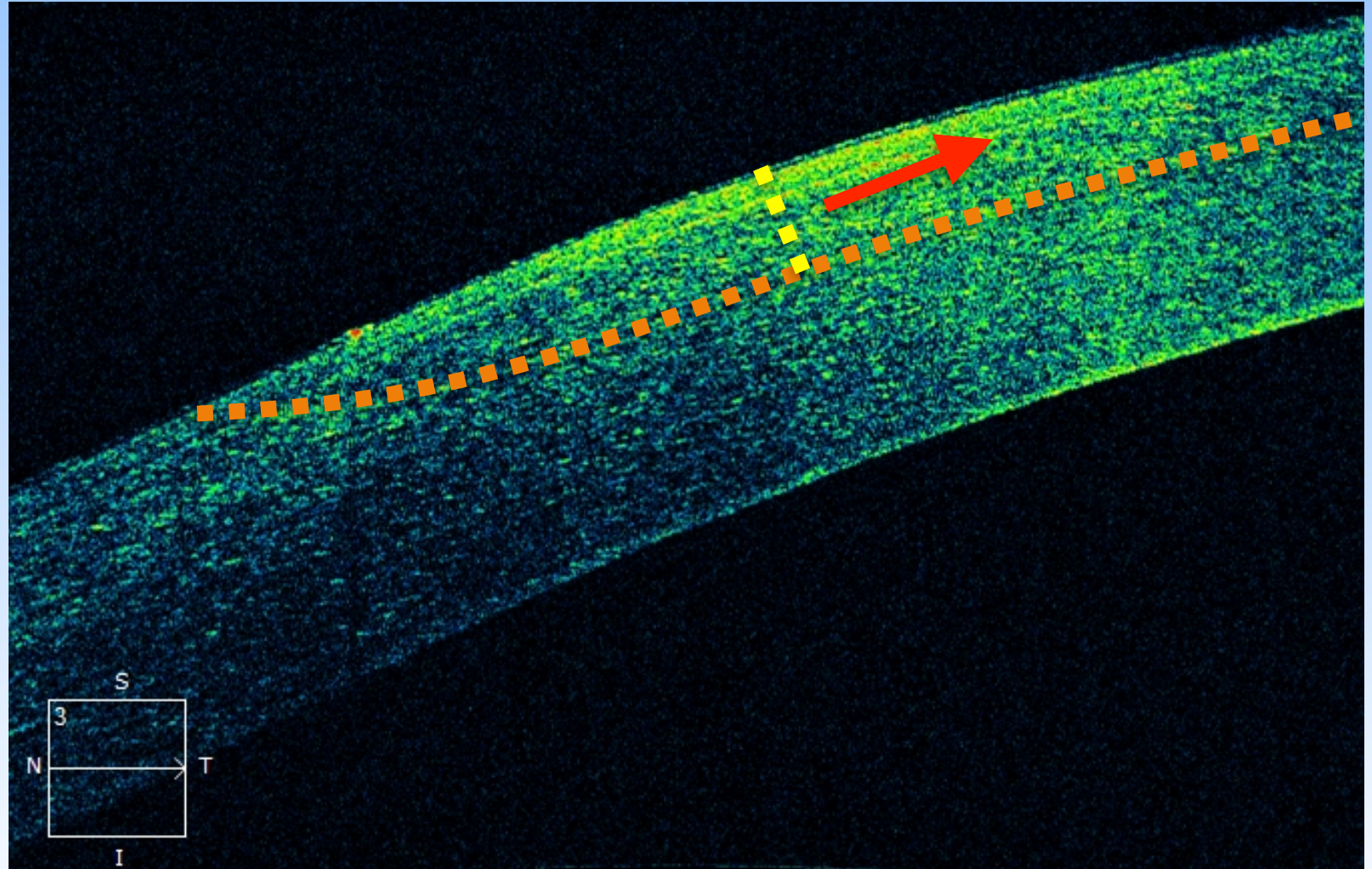
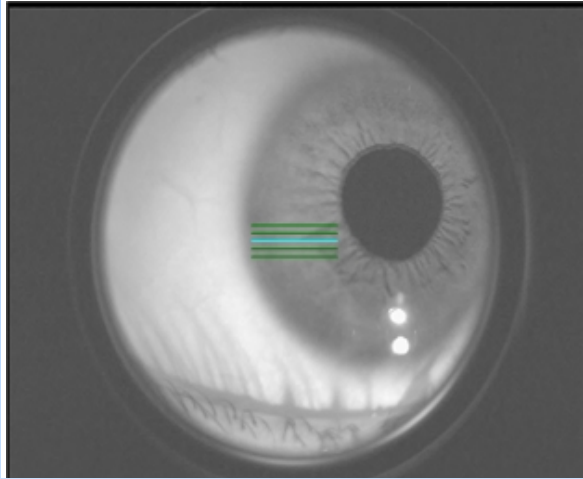
Idea of the RING CUT



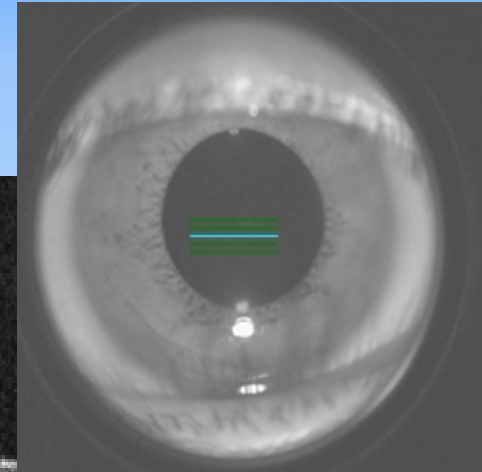
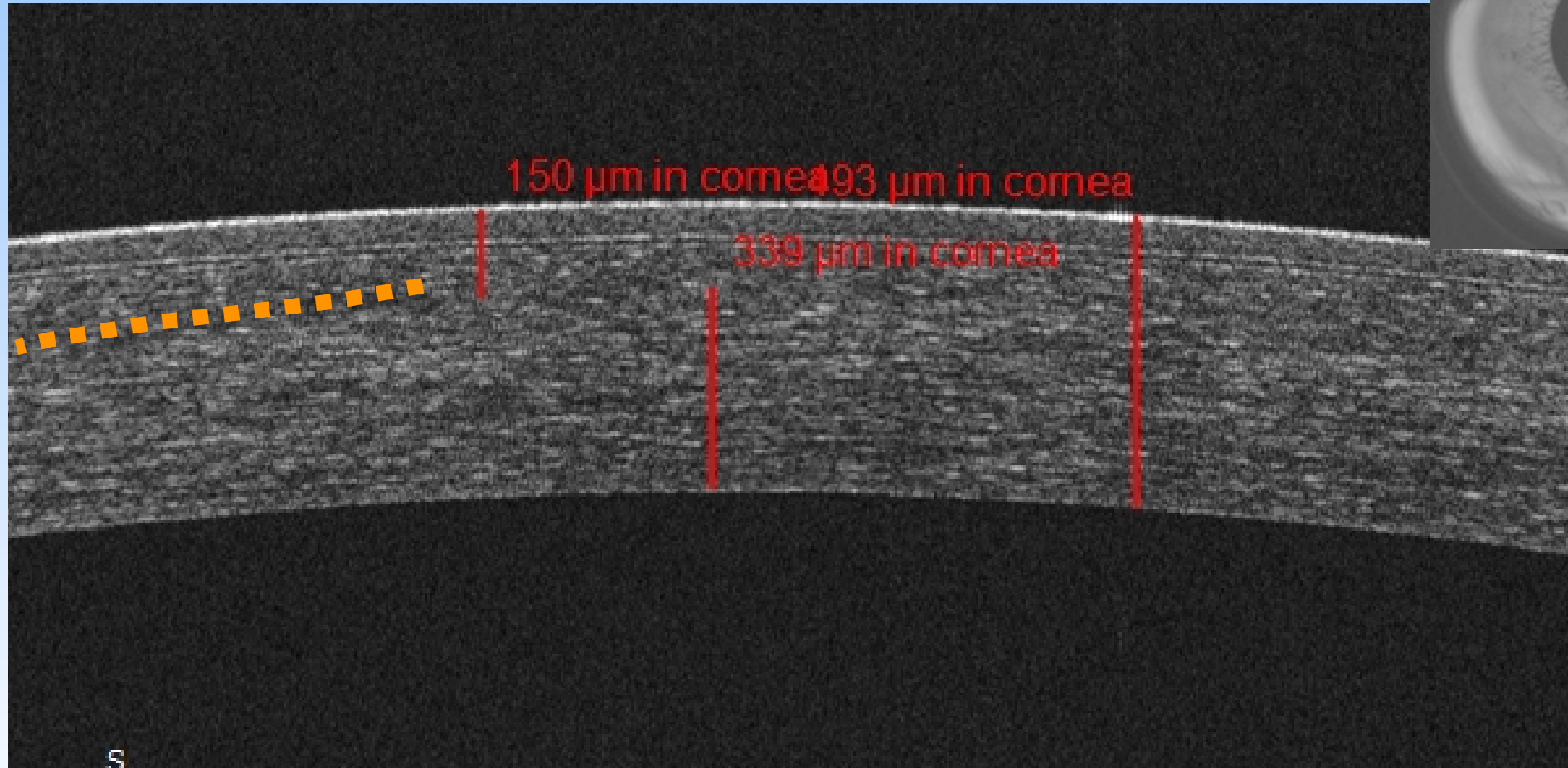
Microkeratome Cut (old)

Femtosecond laser (new)

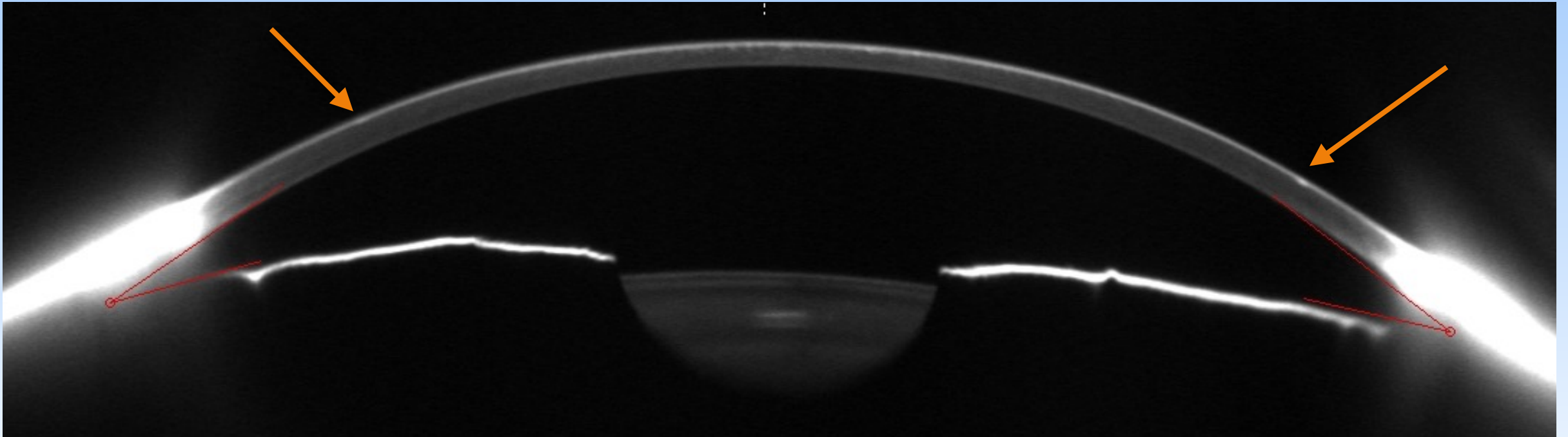
IDEA of the Ring Cut



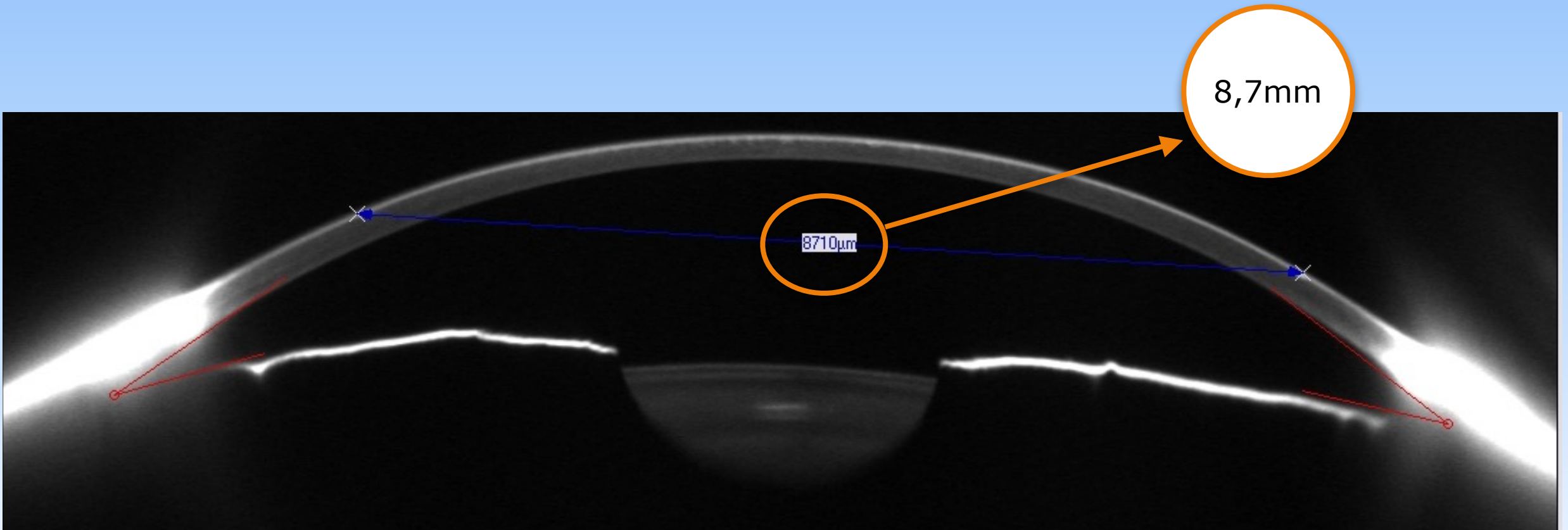
Preoperative OCT



Preoperative Scheimpflug



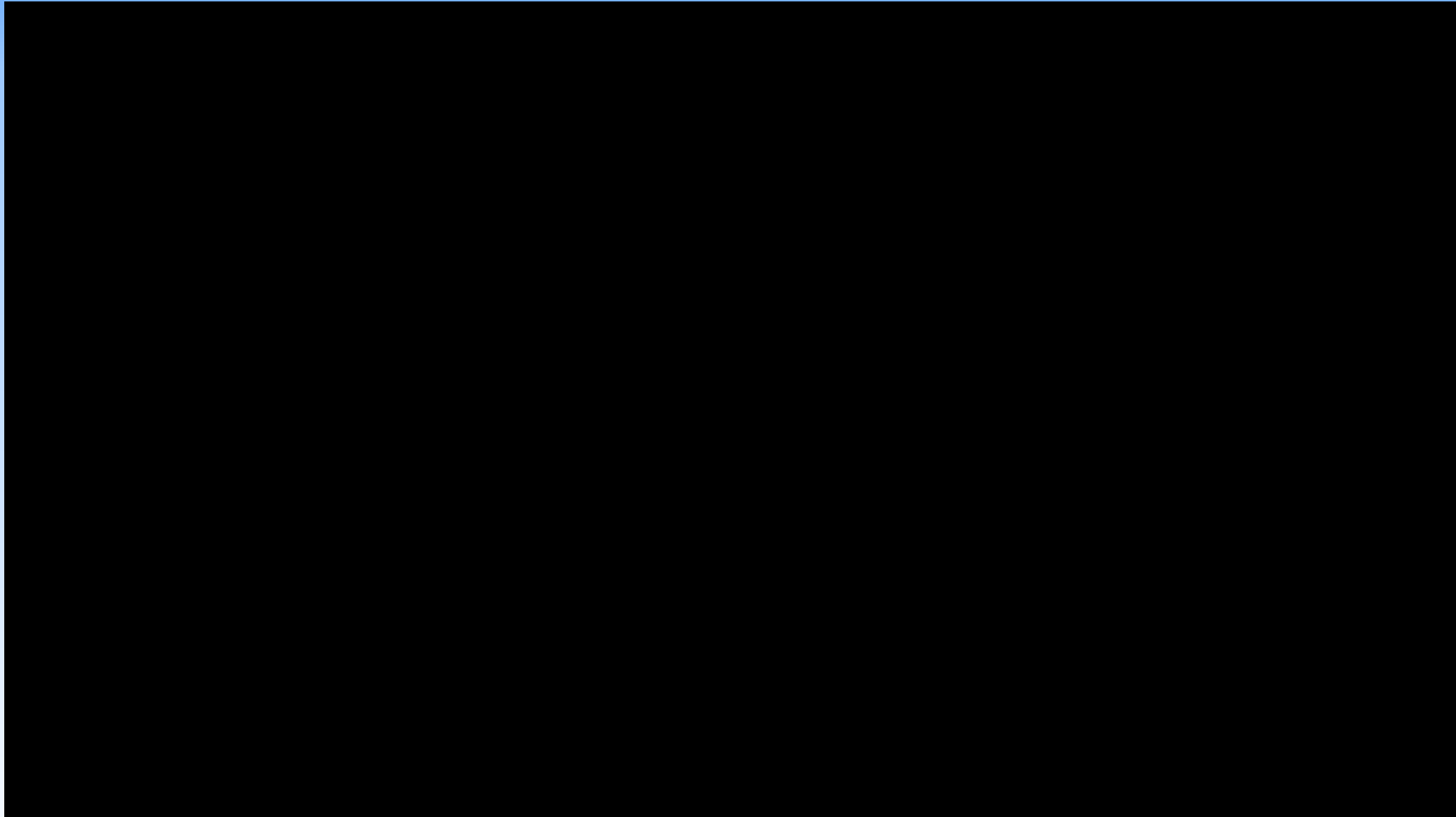
Preoperative Scheimpflug



Settings On My Platform

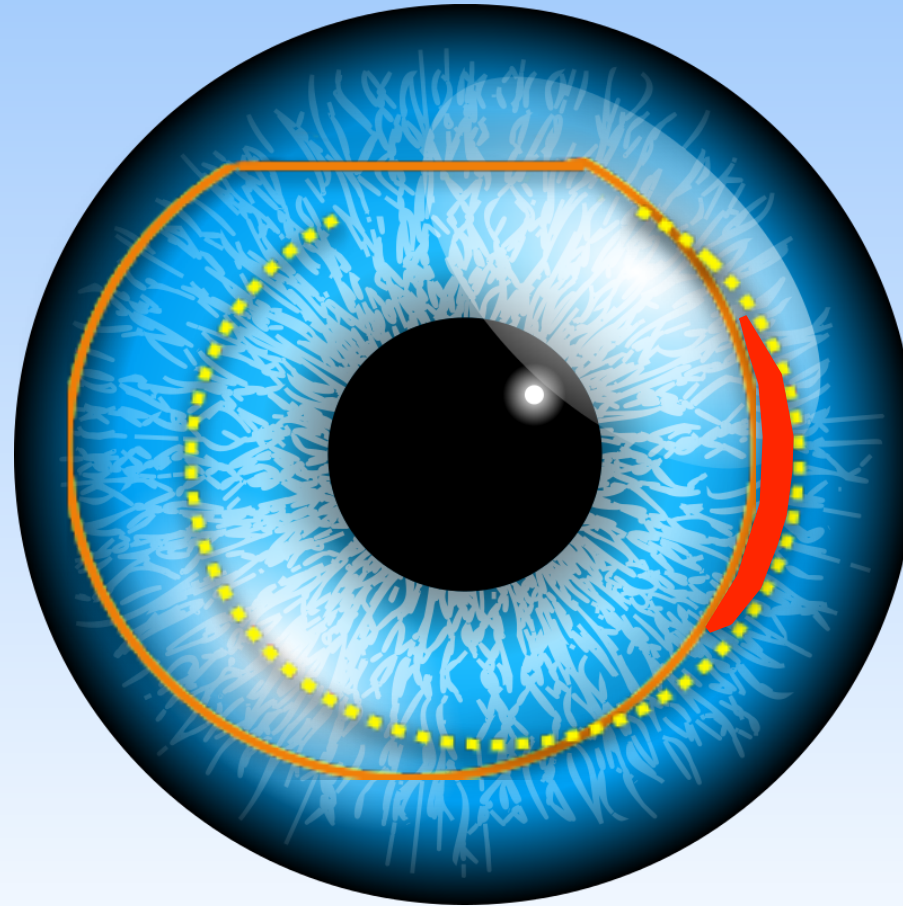
<i>Laser Settings</i>	<i>Bed Cut</i>	<i>Side cut</i>	<i>Canal Cut</i>
<i>Standard Treatment</i>	<i>0.60 μJ</i>	<i>0.60 μJ</i>	<i>0.70 μJ</i>
<i>RING CUT</i>	<i>0.10 μJ</i>	<i>0.80 μJ</i>	<i>NONE</i>

THE RING CUT

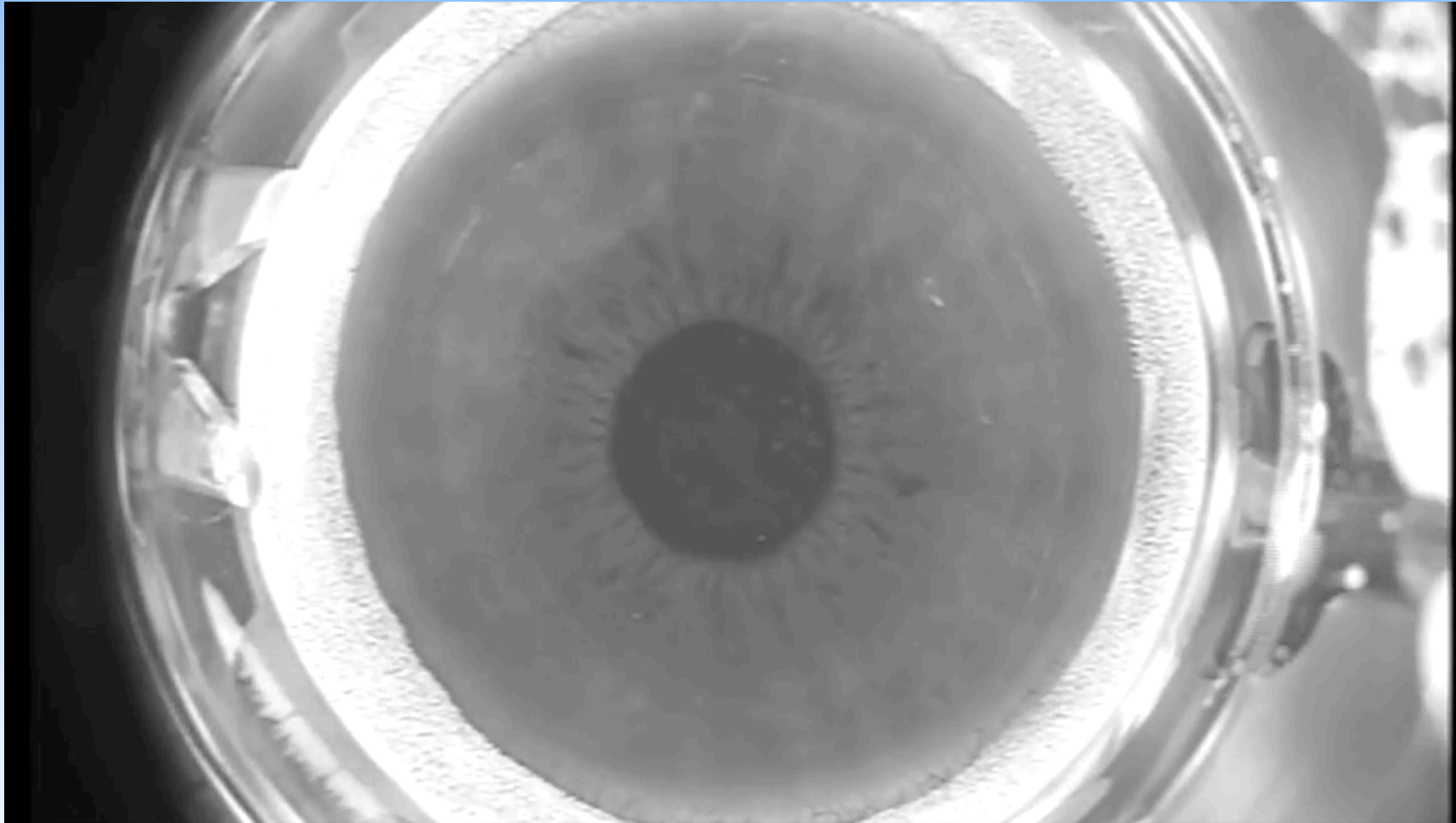


CAREFUL!!

Center your treatment on the flap and not the pupil!!!

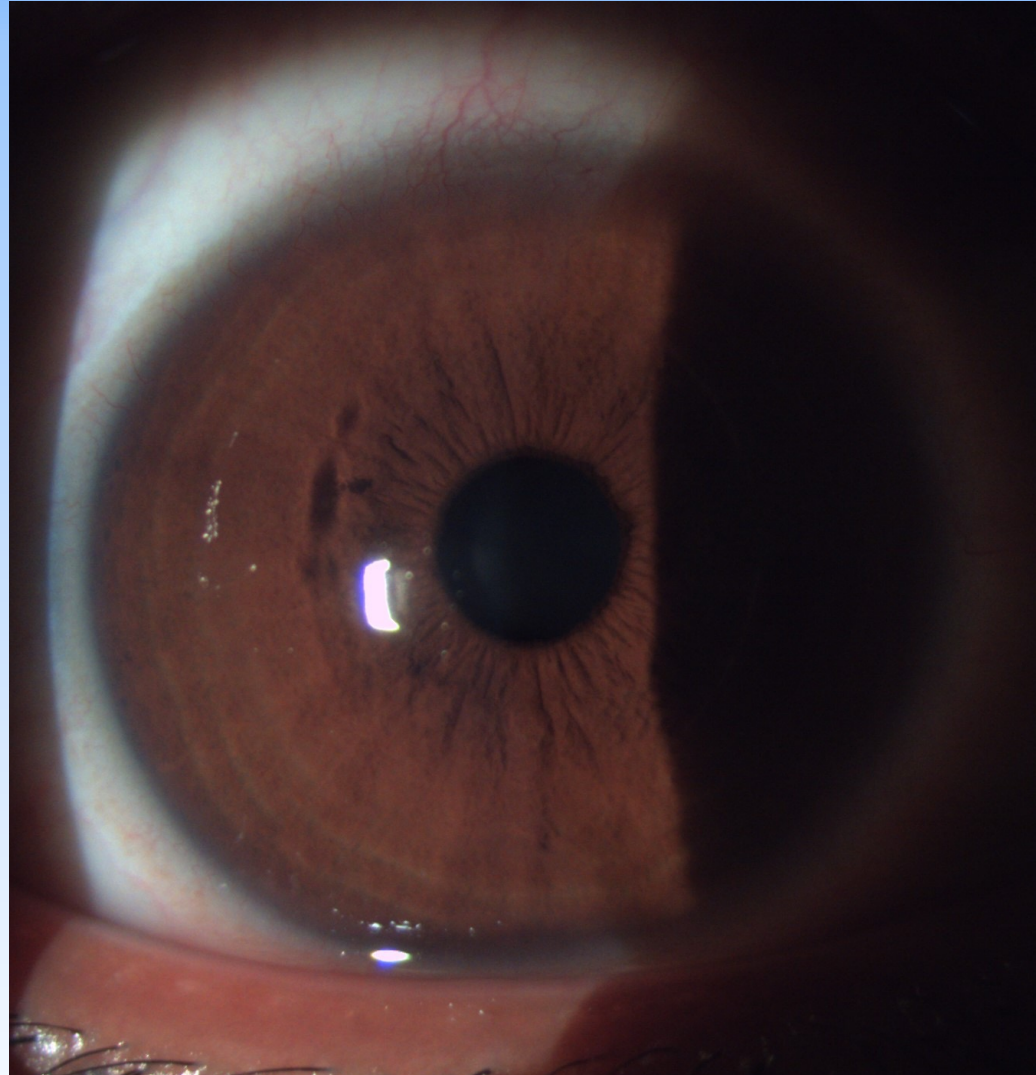


Possible Complications

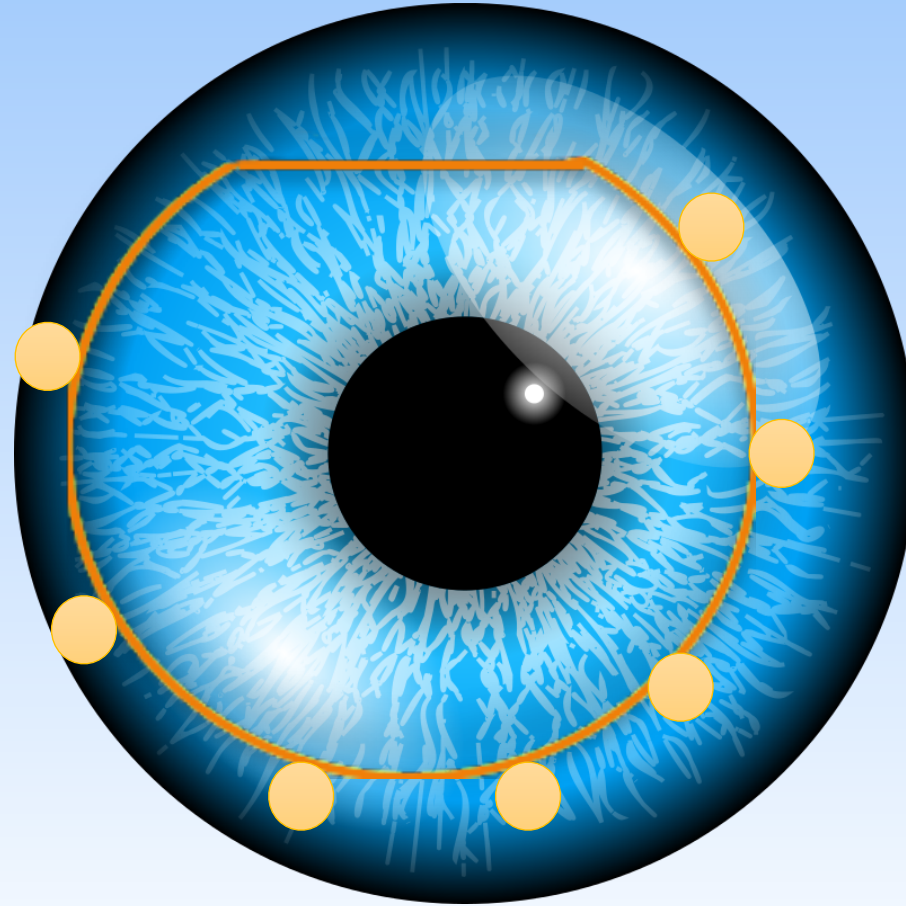


Possible Complications

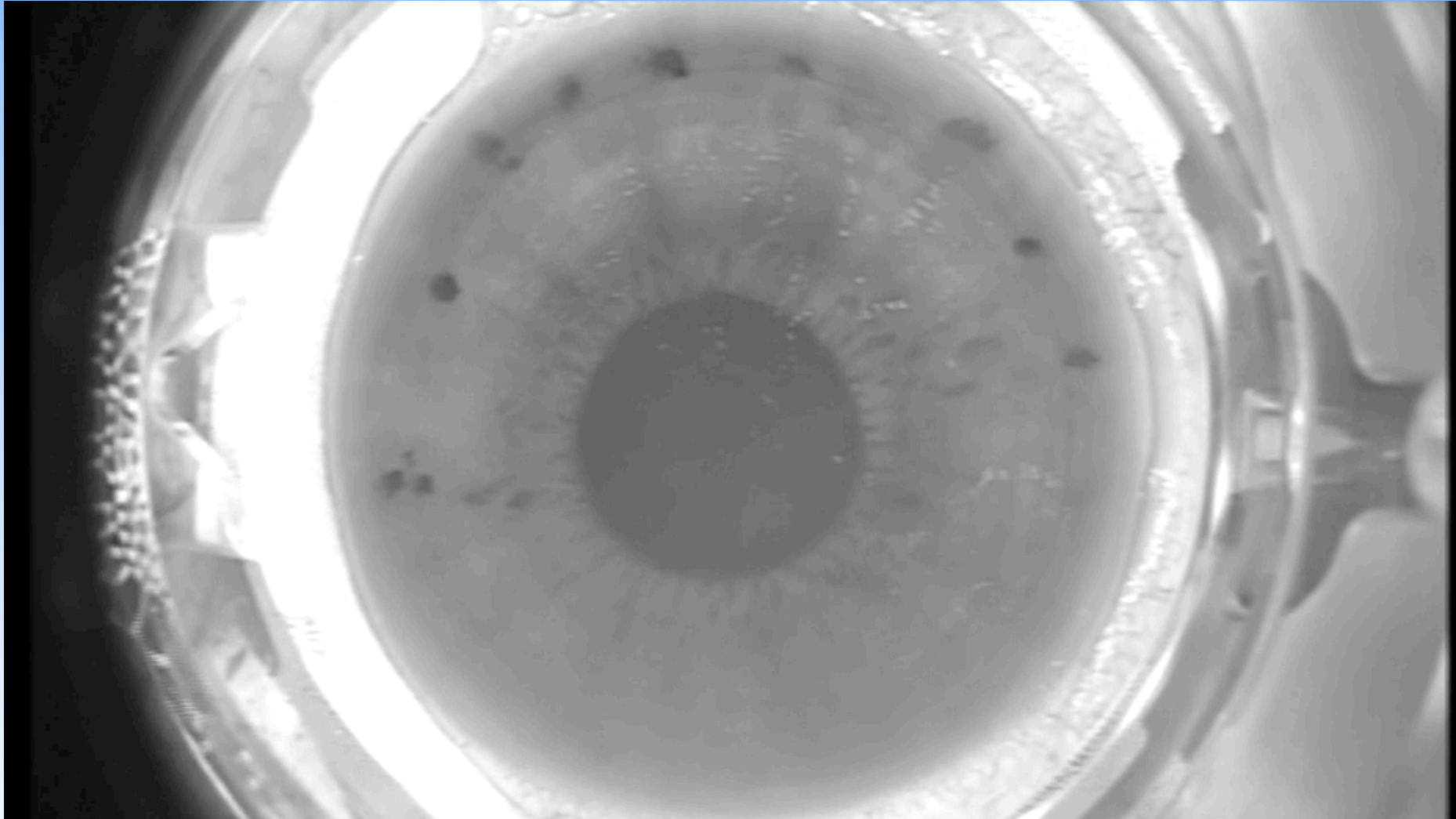
Postoperative



How to Avoid?



How to Avoid



Thank You for Your Attention