



DMEK Made easy

Preparation and transplantation

Prof. Dalia Said

Consultant ophthalmologist and Corneal surgeon
Honorary Associate professor, Nottingham University
Professor of Ophthalmology, RIO, Cairo , Egypt



Acknowledgement

Prof. Harminder S Dua

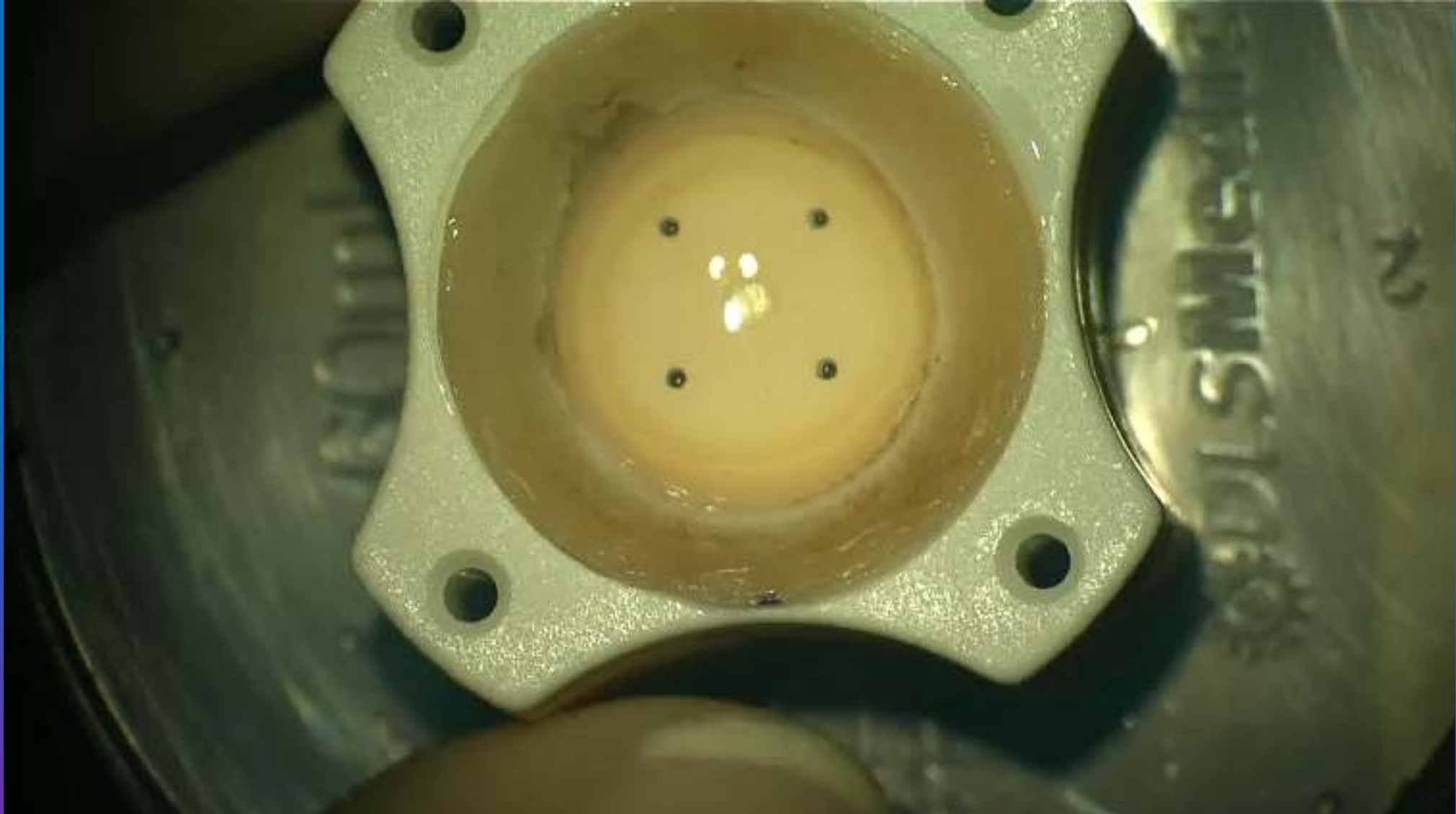


Your first case

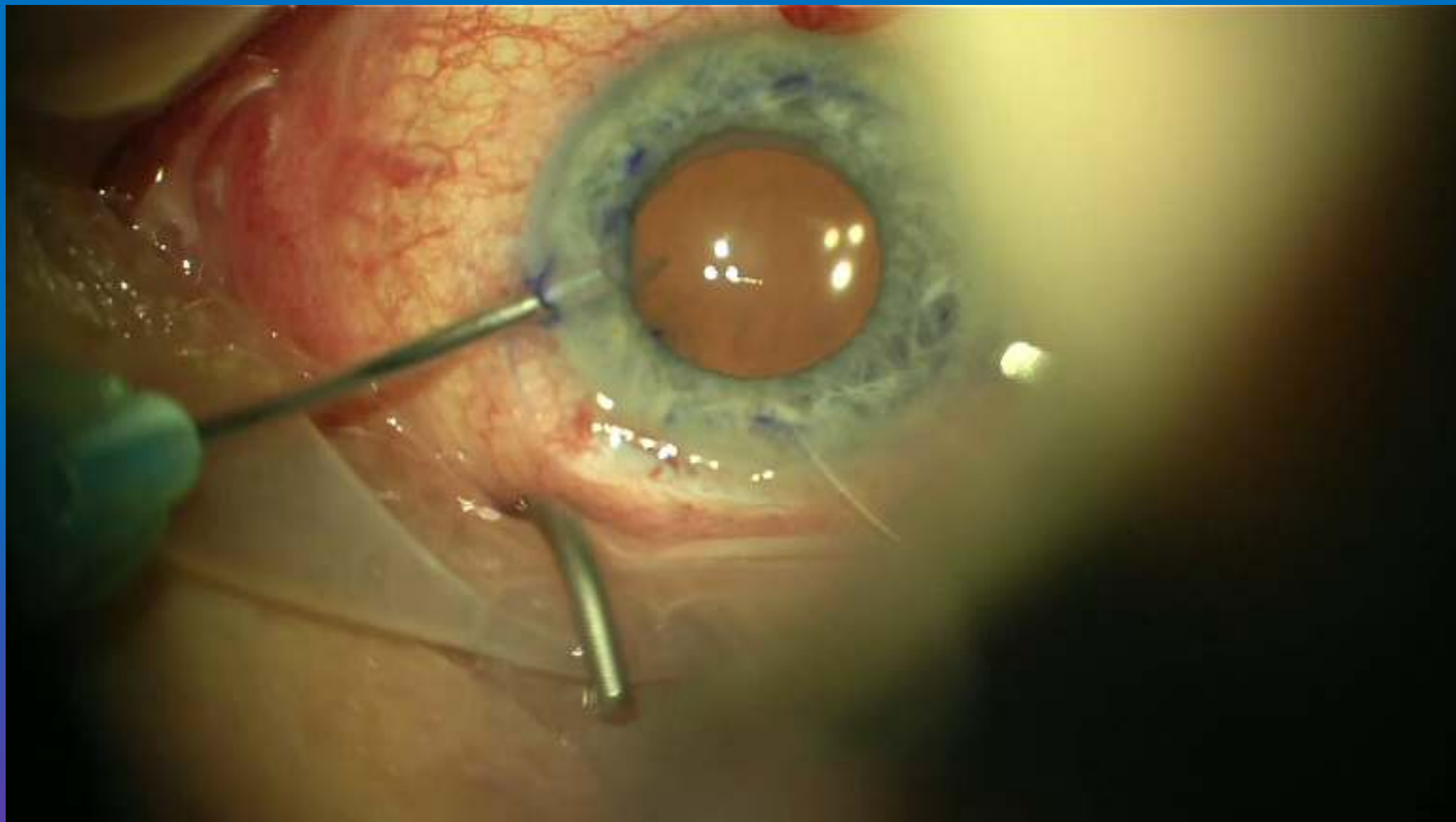
- Preferable GA
- Do the cataract before (Hydrophobic lens)
- AC normal depth (Not shallow and certainly not deep!)
- Not on blood thinner
- Pupil dilates well (if not do laser inferior PI one week before)
- Sclerocorneal tunnel
- Descmatorhexis 0.5 mm > your graft
- Mark your graft (F or S)
- Use membrane blue (Trypan Blue 0.15%) to stain the graft (3 min)
- Use SF6 20%

DMEK preparation

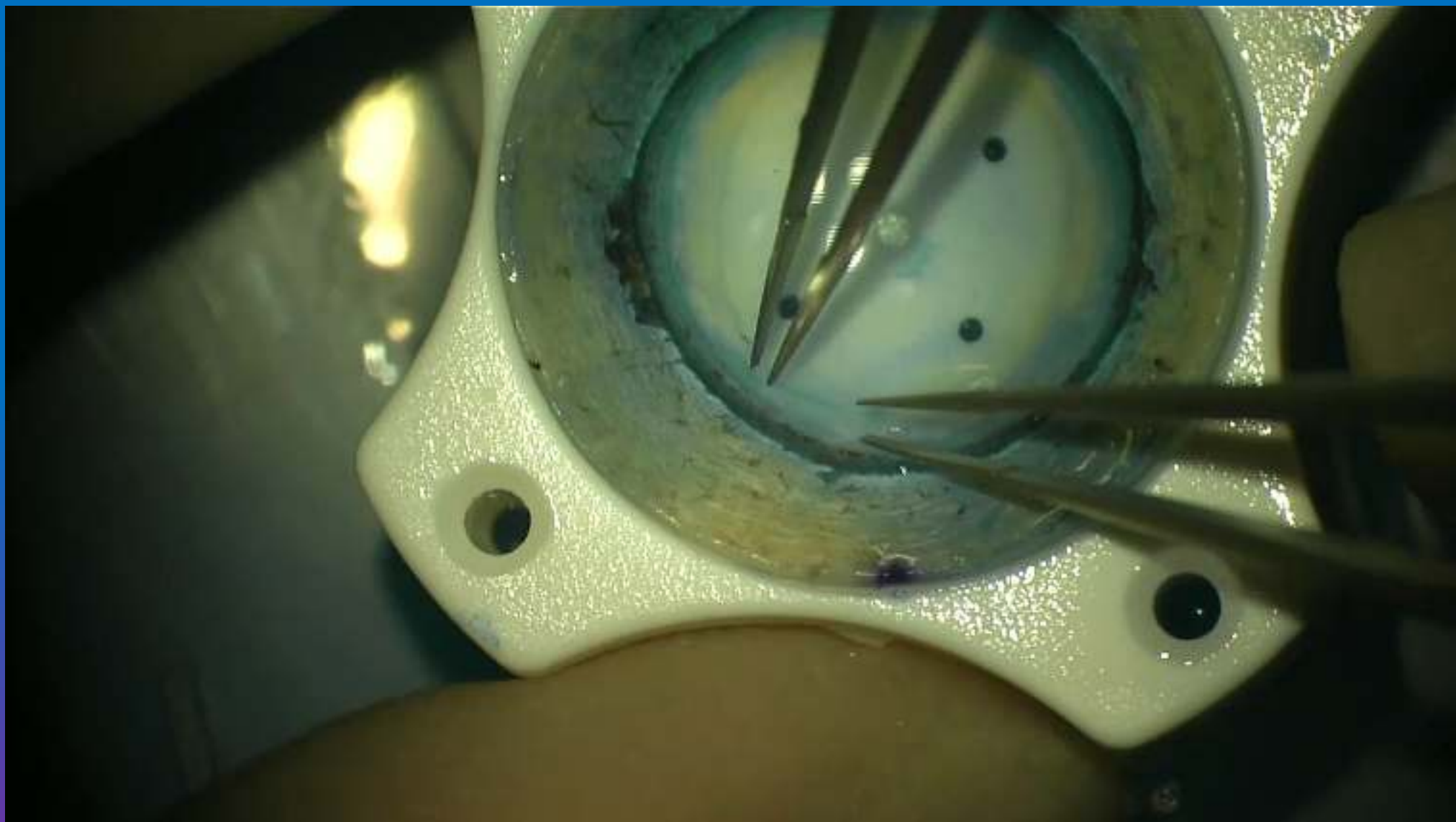
Initial Preparation:



Descmatorhexis



Graft Marking



Graft loading and injection



Graft injection into the eye

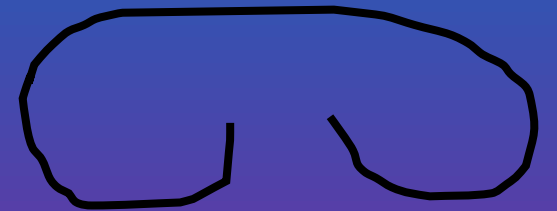
Graft orientation: Edges of the roll superior



Right Orientation !

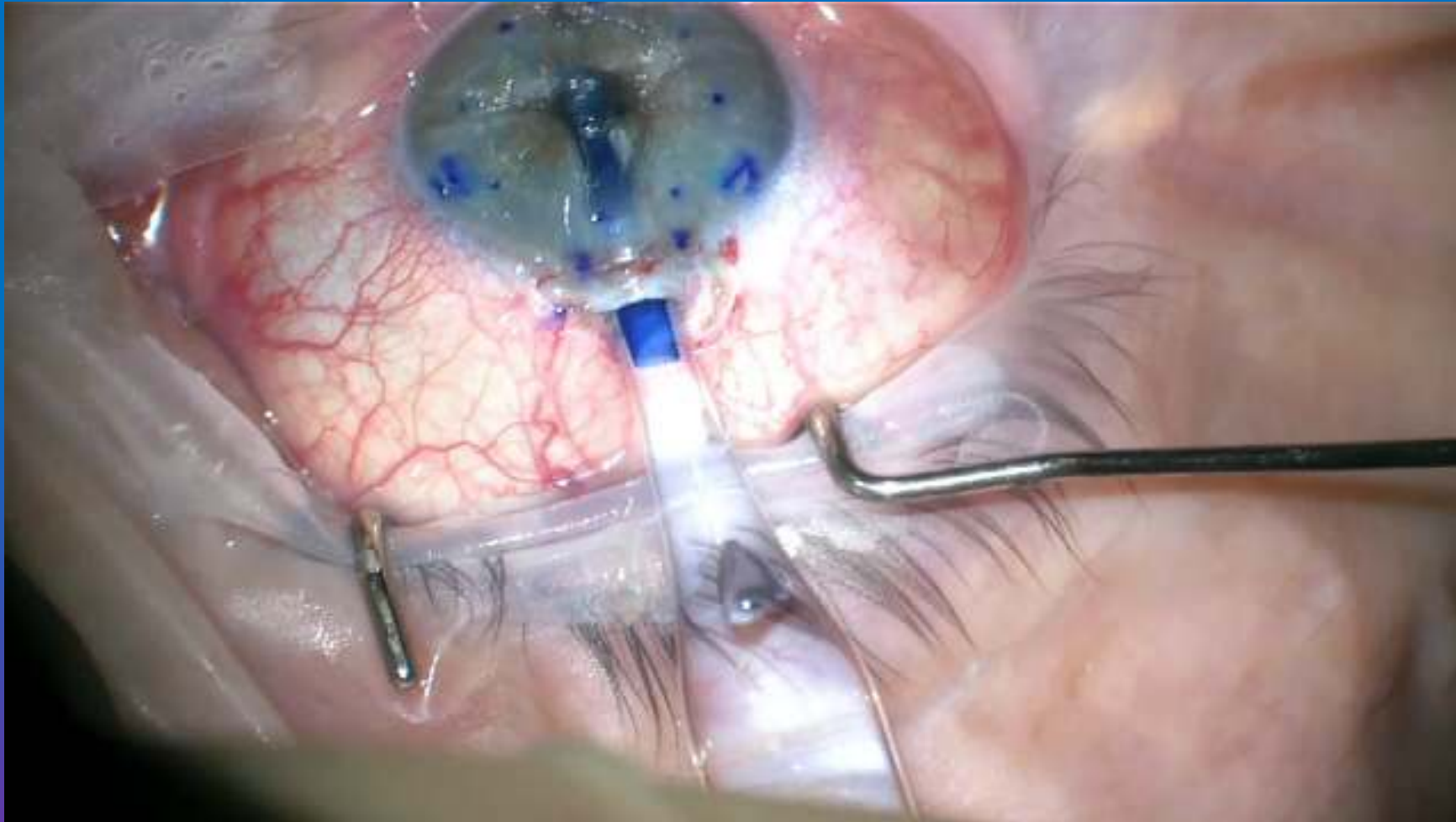


Wrong Orientation!





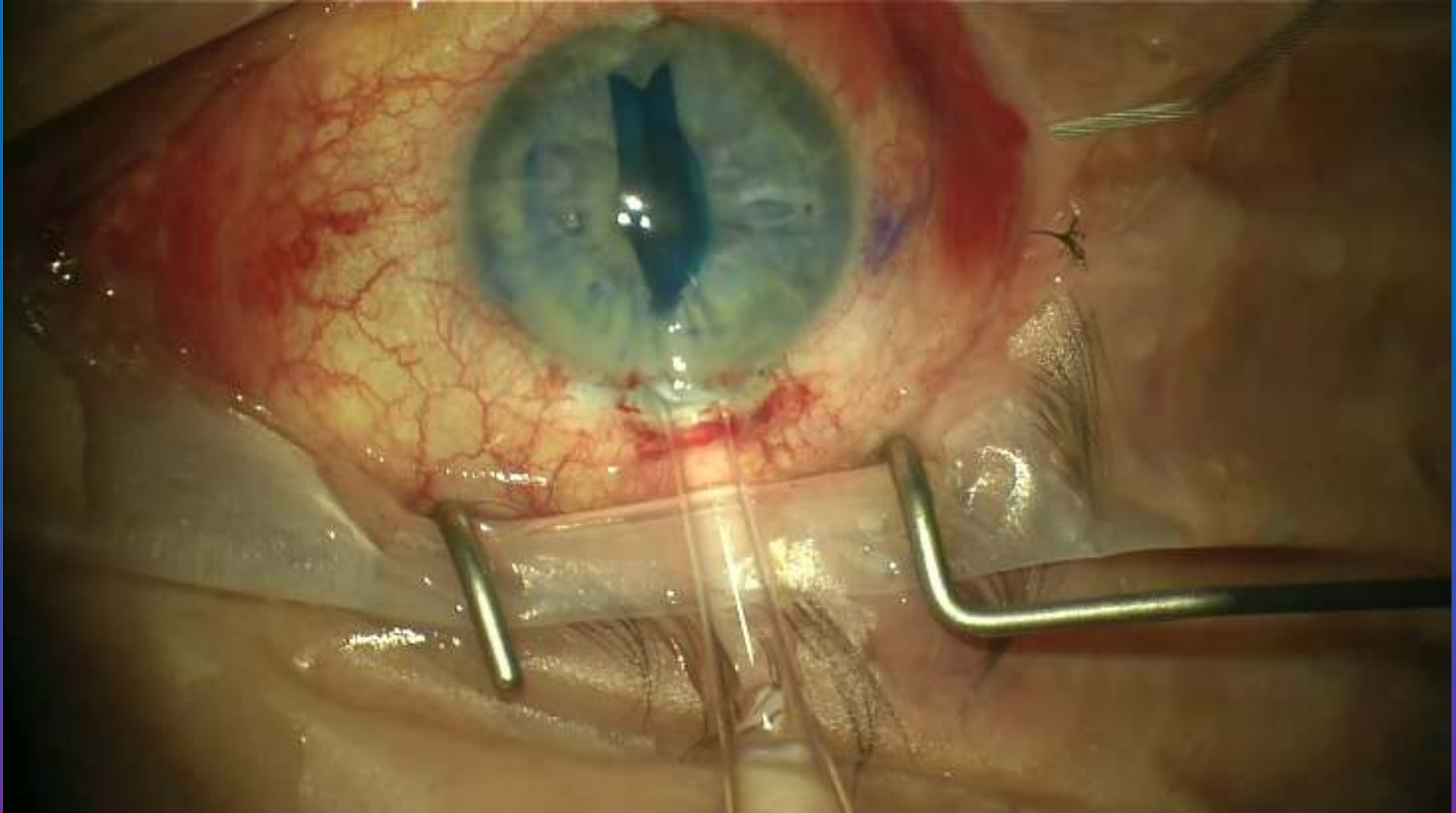
Slow /burst like injection (3 cc syringe)



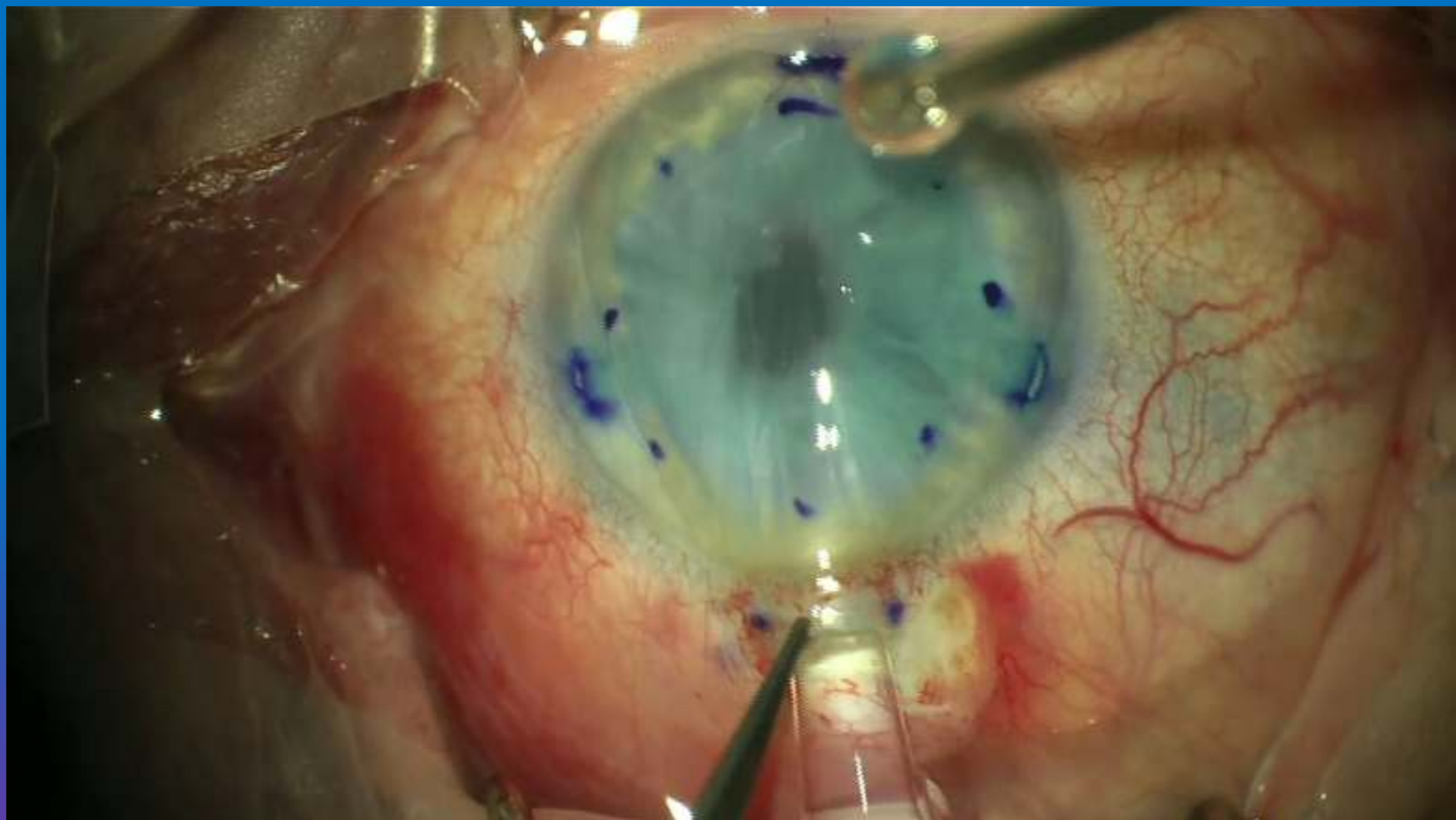
Opening of the graft

Centre before opening

Taco : Smaller fold up



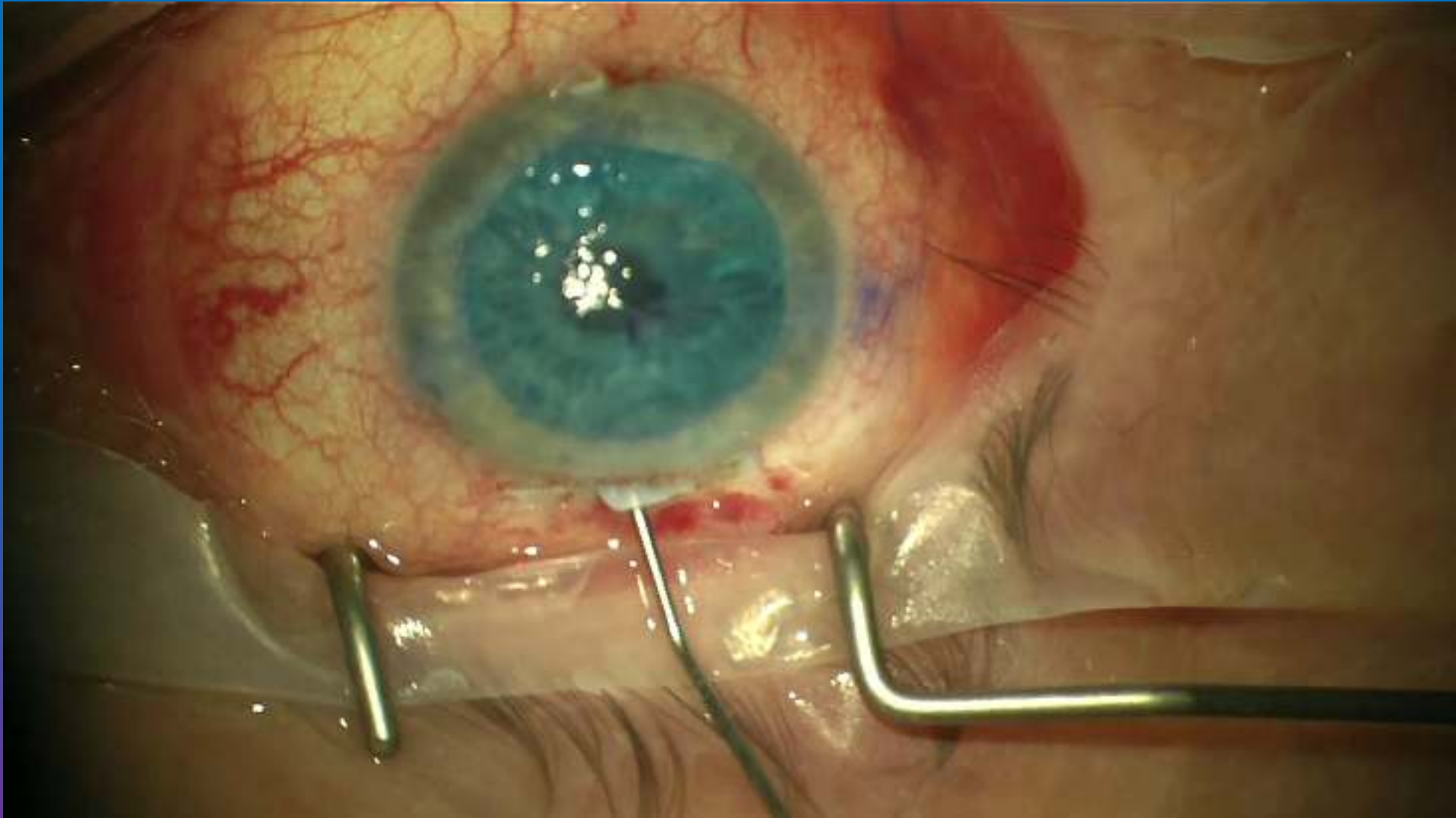
Blood or fibrin in AC



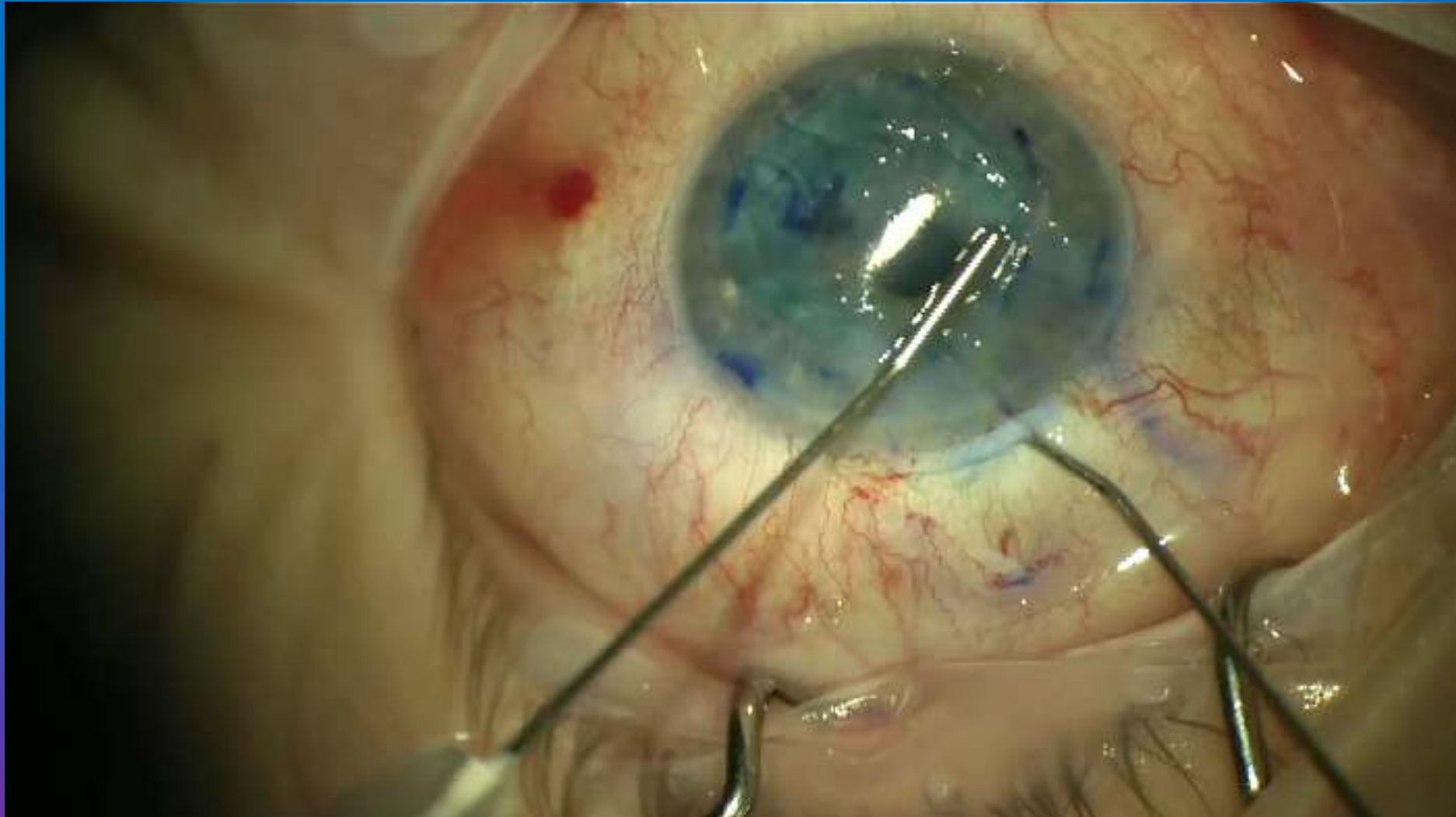
Bleeding from Iris root



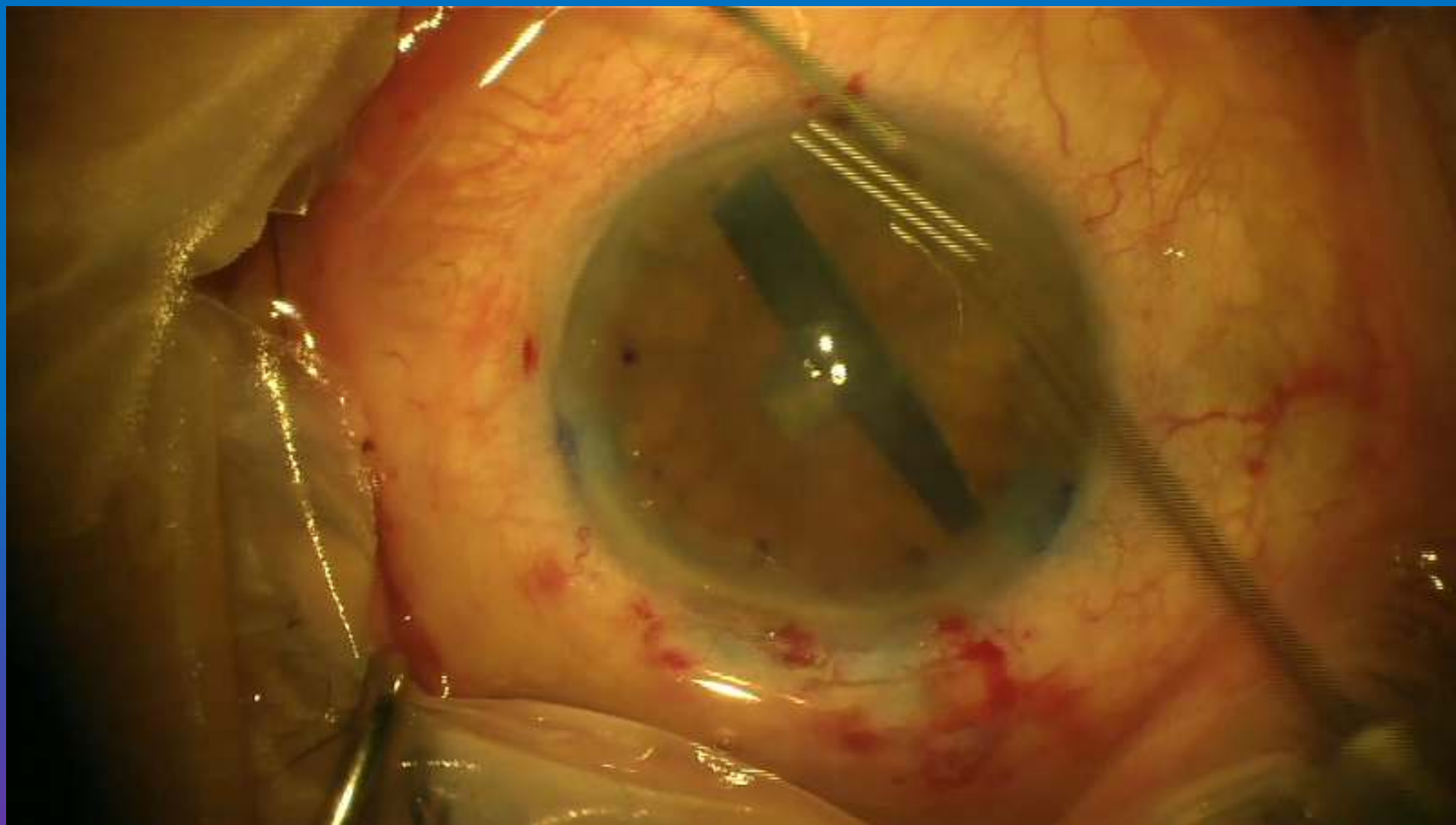
Fold attached to strand: Release with fluid



Fibrin strand stuck to graft

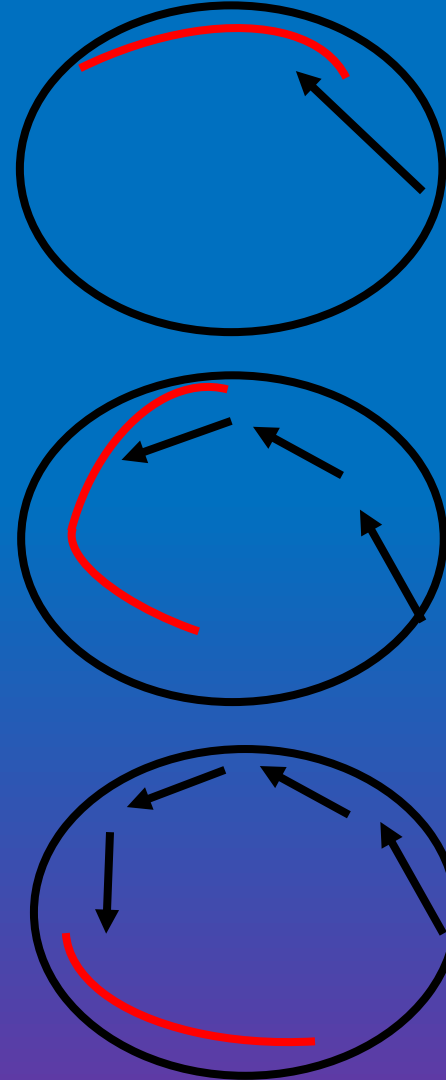
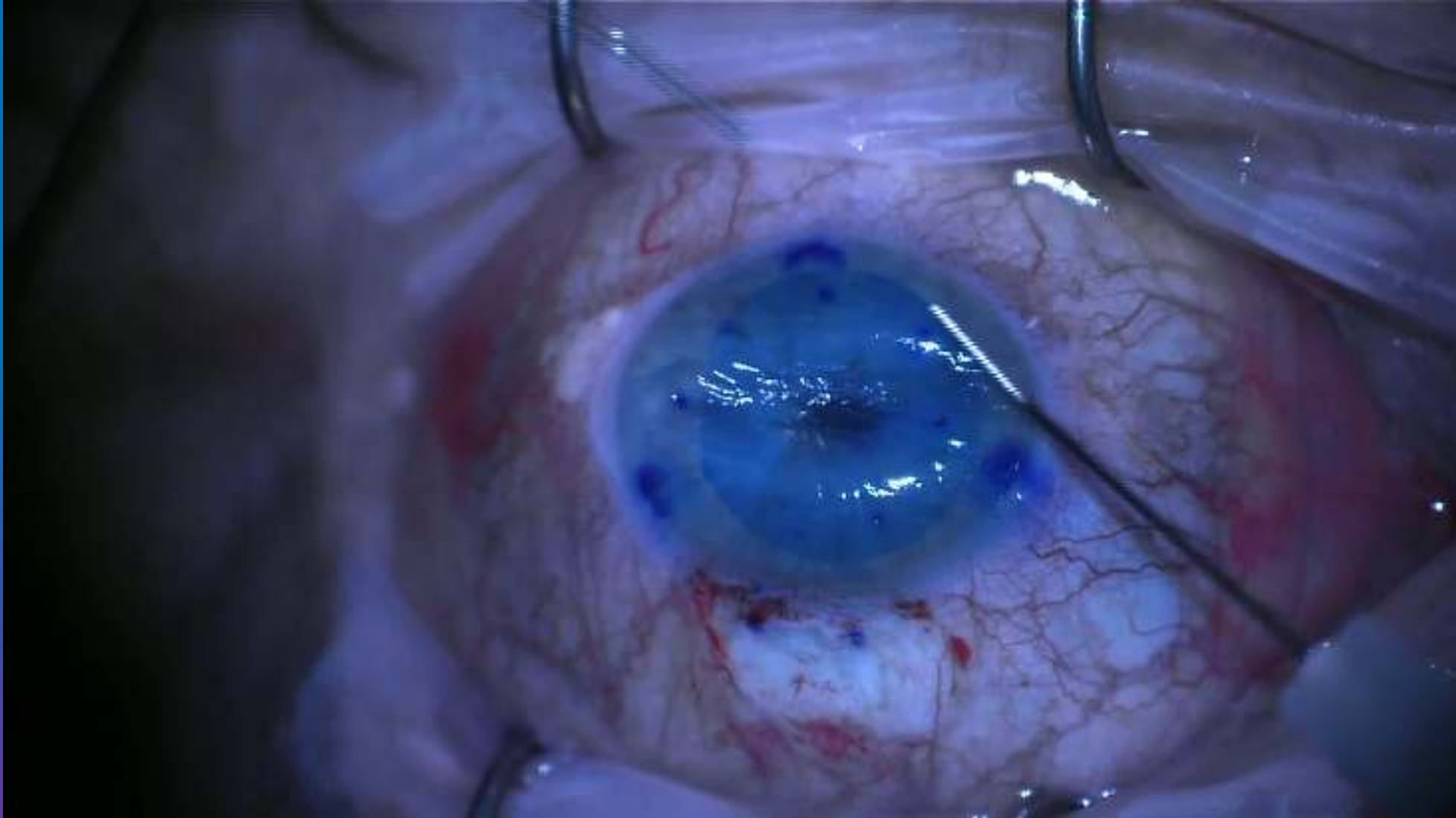


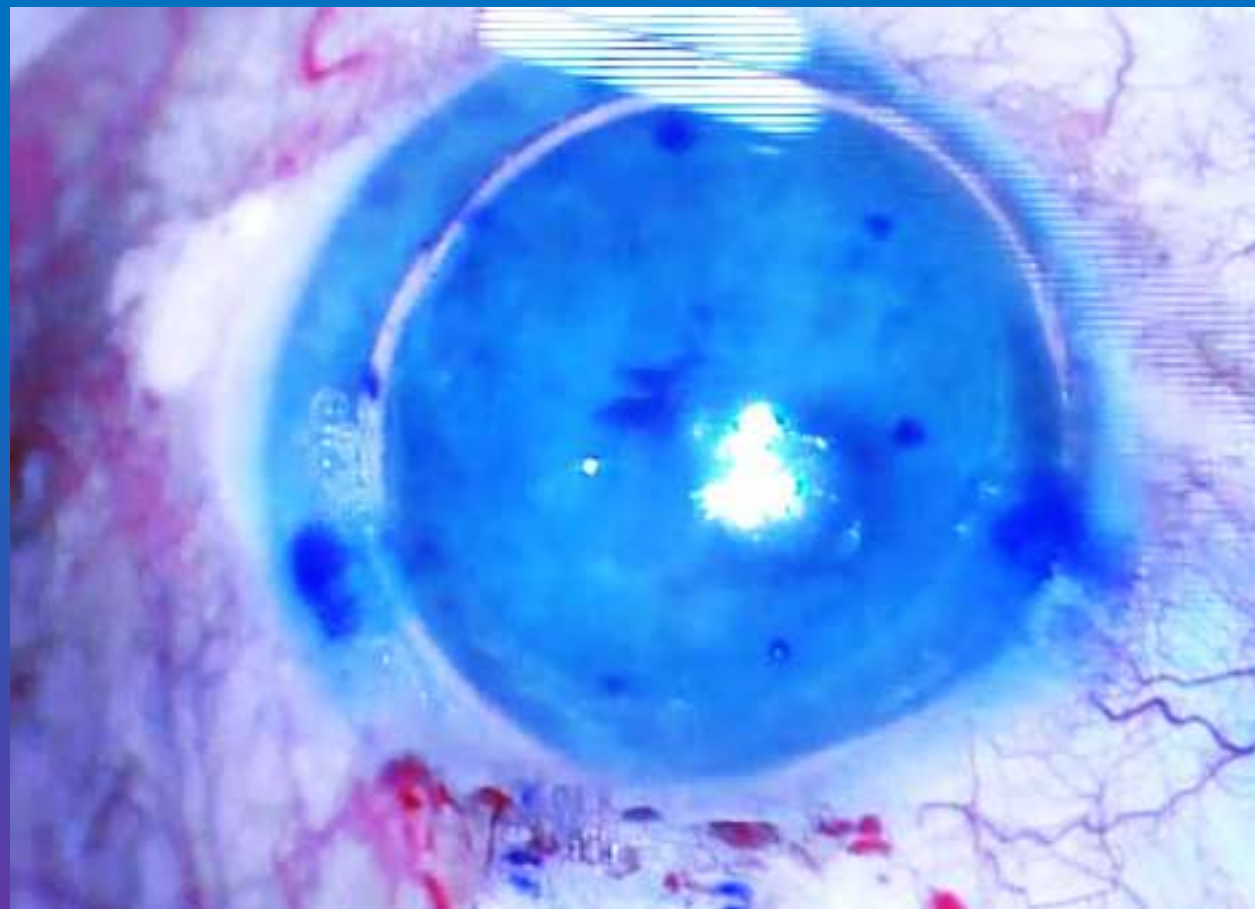
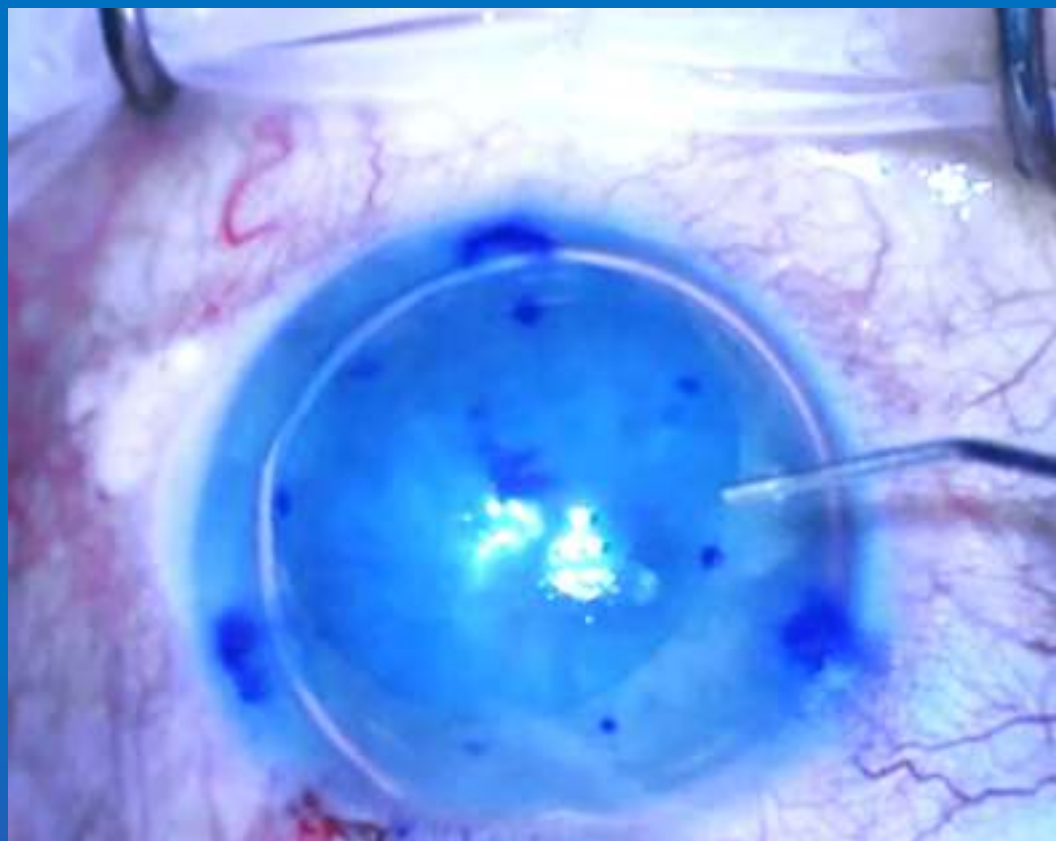
Deep AC



Challenges in orientation

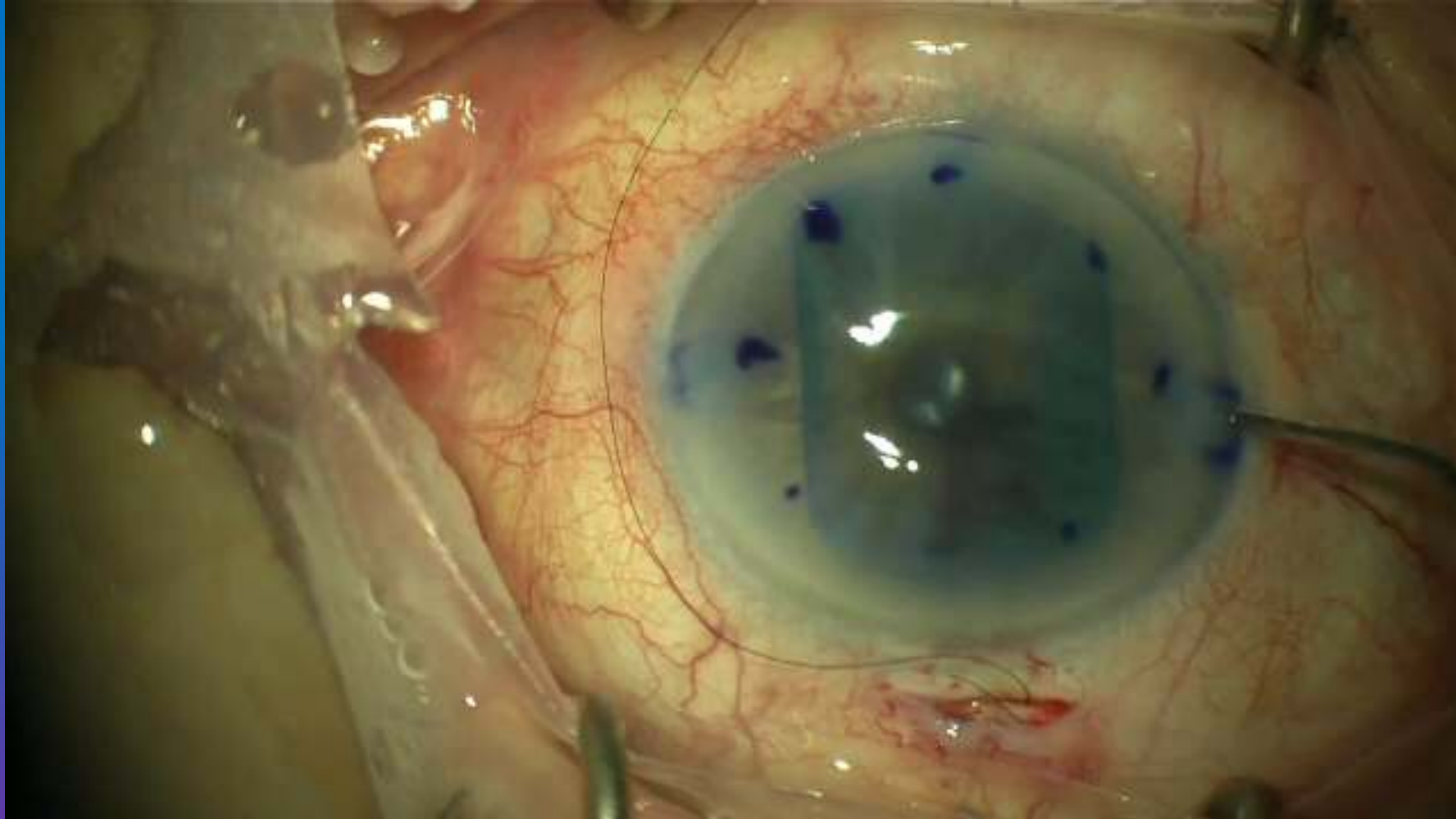
Upside down graft





Air injection

Air injection causing decentration



1-take the air
out form the AC

2-Centre the
graft

3-Flatten AC
before air
injection

Post-op challenges:

➤ Graft detachment:

- Inferior < 2 clock hours=watch for 1 week
- Superior/> 2 clock hours= prebubble with non-expansile SF6 (20 %)

➤ **Macular oedema:** 13% post DMEK

NSAID TID for (2/52 + Dexamethoazone 2 hourly for 1/52 then QID to continue

Take Home Message:

- DMEK is a rewarding operation but many challenges
- Each step affects then next step so stop and correct it before it creates a problem
- Mark ,, Mark, Mark.....
- Stain for 3 minutes (membrane blue) before injection
- Once the graft is in the clock is ticking





Thank you for your attention