

Lasik step by step

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Routine LASIK procedure

1. Preparation
2. Patient positioning
3. Microkeratome check
4. Exposing the eye
5. Suction ring
6. Microkeratome head
7. Lifting the flap
8. The ablation
9. Repositioning the flap
10. Removal of the speculum
11. Immediate postoperative check

preparation

- ▶ **Room condition**

temp between 18-24 C and humidity below 50%

- ▶ **Patient identification**

Confirm the correct patient lying

Cross check the refraction entered in device

Ablation depth and RSB



Patient positioning

- ▶ Head centration-forehead and chin (not nose)

- ▶ Body straight and centered on bed and legs uncrossed

- ▶ Position attained without muscular effort



Psychological management

- ▶ **Verbal anesthesia**

talk to patient continuously and delineating each step
Don't describe what your doing but what he will feel

- ▶ **Local anesthetic:**

One drop of benox and naphacon
Tap the other eye

- ▶ **Control the patient:**

Curb any questions, curb any discussion
Force attention to the fixation point



Microkeratome check

- ▶ Vacuum check

- ▶ Running check

- ▶ Blade 90 or 130



Speculum insertion

- ▶ Use speculum with solid blade
- ▶ Ensure adequate exposure (ideally with equal scleral exposure above and below limbus)



Surface marking

- ▶ Mark the cornea surface with ink asymmetrically
- ▶ Indent the surface with marker to break the epithelial integrity



Suction Ring Application

- ▶ Push aside the lid skin overhang on to the speculum with one hand
- ▶ "this is the part where its going to be a little uncomfortable"
- ▶ Centration is the key and axis of astigmatism and the hinge position
- ▶ Create conjunctival/scleral indentation by pressing the ring for couple of seconds

Suction ring application

- ▶ Start suction
- ▶ "as the pressure inc in the eye ,the lights will go dim"
- ▶ Keep downward force on the speculum which ensures tightening of the conj to produce adequate suction level

Microkeratome lubrication

- ▶ "you are going to feel some fluid "
- ▶ Flood the cornea with anesthetic
- ▶ Engage the head of microkeratome and lock it
- ▶ Make sure no tension on the tubes or pulling
- ▶ Warn the patient not to move or squeeze as the buzzing sound starts

Microkeratome pass

- ▶ Watch the pass with particular attention to the lid and speculum
- ▶ Look at the end position of the microkeratome (incomplete cut)
- ▶ Press the backward foot pedal to reverse
- ▶ Deactivate the vacuum
- ▶ Wait for brief moment while pressing down



Patient Repositioning

- ▶ Repositioning head to central position

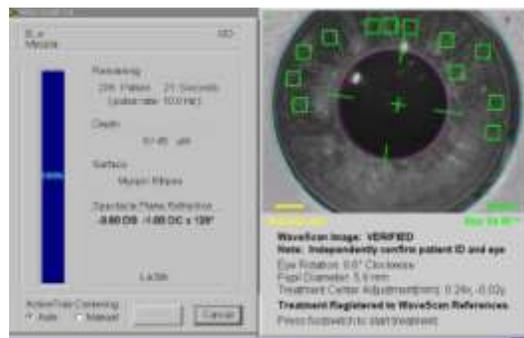
- ▶ Reassure "that the hardest part is now done "

Eye tracker Activation

- ▶ Activate the laser eye tracking

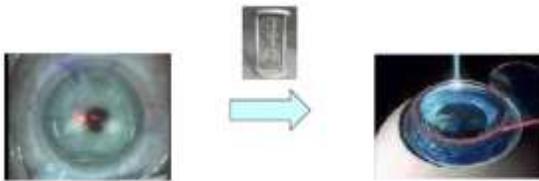
- ▶ Inc the magnification to 1.6

- ▶ Iris registration (cyclotorsion)



Flap lifting

- ▶ Lift flap smoothly without stretching (taco bell or disc flap)
- ▶ Dry the bed with sponge (versatool sponge, standardized)



Aiming Beam

- ▶ Focus the beam (under or overcorrection)
- ▶ "continue looking in red light and warn him of buzz of laser"
- ▶ Flap protection by sponge



Laser activation

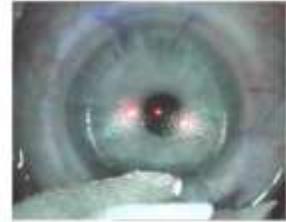
- ▶ During the ablation you may need to do one of these or all:

Hold patient head with one hand

protect the hinge

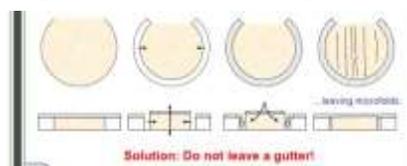
encouraging the patient to fixate and watch the centration of beam

beware fluid is drawn up by capillary action into the hinge



Flap repositioning

- ▶ Use BSS to flush away
- ▶ Close the flap as a traumatically as possible
- ▶ Irrigate under flap for short time with high pressure and velocity(1-2m)
- ▶ Use a wet sponge to gently brush-align the flap with markings
- ▶ Prevent crunch syndrome



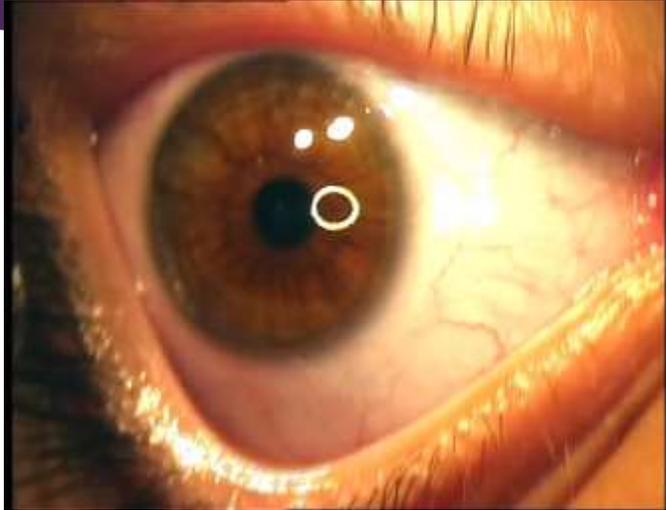
Speculum Removal

- ▶ Tell patient to keep looking at fixation light
- ▶ Remove speculum gently from one lid then the other
- ▶ Instruct patient not to squeeze his lids

Postoperative check

- ▶ Check patient after 30 min
- ▶ Give him postoperative instruction and medication
- ▶ Postoperative visits:
 - 1 day
 - 1 week
 - 1 month
 - 3 month
 - 6 month

video



Thank you for your attention