MY EARLY EXPERIENCE WITH THE ZIEMER FEMTO LDV Z6

DR CORDELIA CHAN  FRCSEd

HEAD & SENIOR CONSULTANT, REFRACTIVE SURGERY SERVICE
SENIOR CONSULTANT, CORNEA SERVICE
SINGAPORE NATIONAL EYE CENTRE
SINGAPORE

FINANCIAL DISCLOSURES

Alcon
Consultant

Carl Zeiss Meditec
Travel

Femtosecond Lasers in SNEC
My LASIK experience

Femtosecond Lasers in SNEC
My LASIK experience

THE ZIEMER FEMTO LDV Z6

Femto LDV Z6 (Ziemer)
Since Oct 2013
Femto cataract only

IntraLase iFS 150kHz (AMO)
Since early 2008

VisuMax 500kHz (Carl Zeiss Meditec)
Since late 2008

Victus (TechnoLas Perfect Vision)
**ADVANTAGES**

- Compact
- Great portability
- Sits nicely next to any excimer laser platform
- Capabilities
  - Flaps
  - Pockets
  - Cornea grafting

**DISADVANTAGES**

- More preparation for nursing staff
- “Transformers” style articulated arm: Clumsy
- No visualization of femtosecond pass through the microscope
- Relatively long treatment time (25s)

**NURSING PREPARATION**

**ZIEMER LASIK:**

**PRACTICAL POINTERS**
PEARLS

• Positioning of patient’s head is crucial
  – To get good applanation and full meniscus, maximal access to the eye must be attained
  – Always turn head nasally (away from the handpiece)
  – Move chin up or down

• Use lid retractors with small brackets
  – Thorlakson Z-LASIK speculum

PEARLS

• Cornea must be moist to prevent excessive OBL
• Sclera must be dry for better suction
• Use fixation light of excimer laser, but turn microscope illumination off

POSITIONING OF HAND PIECE

• Hold hand piece horizontally when applanating
• Centre black point inside the suction ring area
### PEARLS
- Always check for vacuum stability before cutting
- During cutting, hold handpiece horizontally and do not press down on the eye
- Remember to re-align the head before excimer laser ablation

### INITIAL DIFFICULTIES
- Getting good applanation and that full meniscus
  - Moving the patient’s head rather than moving the eye
  - Pressing down too hard unnecessarily
- No visualization of femtosecond pass through the microscope
  - Everything is on the screen

### ZIEMER LASIK

![Image of Ziemer LASIK procedure](Image)

- Very portable
- Cuts good flaps
  - Easy lifts
  - Smooth stromal bed
- Reasonable for small eyes
- Less subconjunctival hemorrhage than IntraLase
- Slow: Long treatment time

### FINAL THOUGHTS ON THE ZIEMER
- Very portable
- Cuts good flaps
  - Easy lifts
  - Smooth stromal bed
- Reasonable for small eyes
- Less subconjunctival hemorrhage than IntraLase
- Slow: Long treatment time
IS THERE AN IDEAL FEMTOSECOND LASER FOR LASIK ?

THE IDEAL FEMTOSECOND LASER SYSTEM (For LASIK)

- Easy docking and applanation
- Easy centration
- Fast
- Smooth flap lift
- Smooth / pristine stromal bed
- Customizable flaps
- Low risk of suction breaks
- Comfortable for the patient
- No subconjunctival hemorrhage

INTRALASE VS VISUMAX VS ZIEMER

- Most comfortable for the patient
  - VisuMax
- Easiest docking and applanation
  - VisuMax
- Most difficult for small Asian eyes
  - IntraLase
- Smoothest stromal bed / flap lift
  - IntraLase
- Most stromal adhesions
  - VisuMax
- Better for squeezy / teary patients
  - IntraLase / Ziemer
- Most likely to cause subconjunctival hemorrhage
  - IntraLase

THANK YOU
A Presentation by the Singapore National Eye Centre

C Chan, FRCS(Ed)