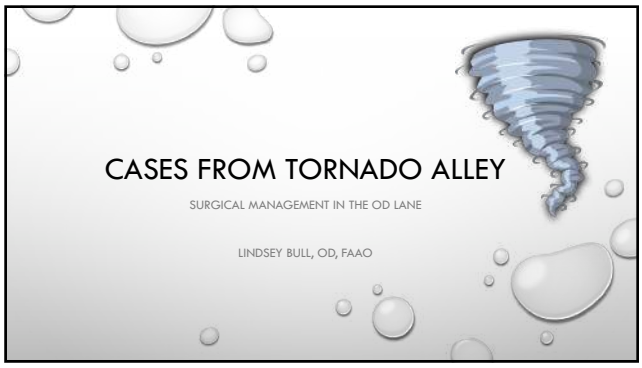


1

DISCLOSURES

- ALLERGAN/ABBVIE

2

PROGRAM OBJECTIVES

- DISCUSSION AROUND EVERYDAY SURGICAL PATIENT CASES
- DECISION MAKING AROUND SURGICAL OPTIONS
  - HOW DO WE MAKE THAT CHOICE
- HOW WE AS OPTOMETRISTS PLAY A ROLE IN PATIENT SURGICAL CARE
- HOW WE CAN BEST PREPARE OUR PATIENT AND THE SURGEON

3

CASE #1: LASIK VS PRK

- 25YOM PRESENTS IN OFFICE FOR LASIK PREOP
  - OUT OF CONTACT LENSES FOR 2+ WEEKS
  - MANIFEST REFRACTION:
    - OD: -3.50 -0.25 X 155 20/20
    - OS: -3.75 -0.25 X 162 20/20
  - CYCLOPLEGIC REFRACTION:
    - OD: -3.50 -0.25 X 155 20/20
    - OS: -3.75 -0.25 X 162 20/20
- ANTERIOR AND POSTERIOR SEGMENT: WNL OU

4

CASE #1

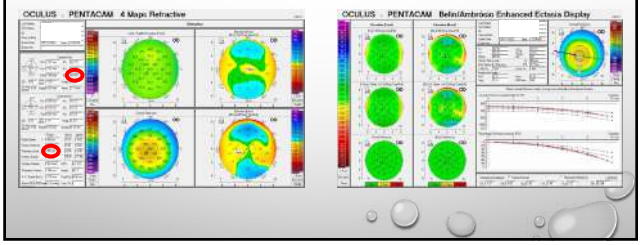
- LASIK/PRK CONSIDERATIONS/CONTRAINDICATIONS:
  - AGE
    - 18+
  - OCULAR HEALTH[3]
    - DRY EYE
    - CATARACTS
    - RETINAL HEALTH
      - GLAUCOMA
      - MACULAR DEGENERATION
    - PACHS
      - RESULTANT CENTRAL CORNEAL THICKNESS[3]
        - 400 MICRONS[1]
        - RESIDUAL STROMAL BED 275 MICRONS OR MORE
    - K'S
      - FLATTENS 0.80 FOR EACH MYOPIC DIOPTER[3]
        - 260 LIMIT[3]
      - STEEPENS 1.00 FOR EACH HYPEROPIC DIOPTER[3]
        - 500 LIMIT[3]
    - CORNEA[3]
      - DYSTROPHIES
      - KERATOCONUS
      - NEOVASCULARIZATION
      - HSK/HSV
  - SYSTEMIC HEALTH[4]
    - AUTOIMMUNE CONDITIONS/COLLAGEN VASCULAR DISORDERS
    - DIABETES
    - PREGNANCY AND BREASTFEEDING
  - MEDICATIONS[4]
    - ISOTRETINOIN
    - AMIODARONE
    - COLCHICINE
    - SUMATRIPTAN
    - LEVONORGESTREL IMPLANT
  - MENTAL HEALTH[4]
  - OCCUPATION
    - Military, police, pilots, fighters

1. Ortega-Usobiaga, et al. "Update on contraindications in laser corneal refractive surgery." Arch of the Spanish ophth soc. 2022. 98(2). 105-111.
2. Reza Dastjerdy, Mohammad, et al. "Long-term evaluations of eyes with central corneal thickness <400um falling later in its keratectasia." Clin Ophthalmol. 2016. 10. 535-540.
3. Rocha, Kimberly. "Identifying the Ideal LASIK Patient." Cat and Refrac Surg Today. April 2012. ostodoryeurope.com/articles/2012-apr/identifying-the-ideal-lasik-patient
4. Gonzalez Madrigal, Pedro. Eyewiki Calculations for LASIK ablation. 2022. eyewiki.aao.org/calculation_for_LASIK_Ablation. June 26, 2023.

5

CASE #1

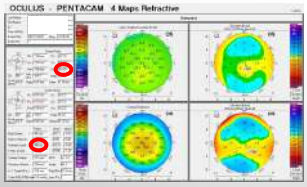
Refraction OD: -3.50 -0.25 x 155

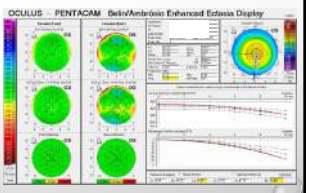


6

CASE #1

Refraction OS: -3.75 -0.25 x 162





7

CASE #1

- FLAP VS EPI REMOVAL:
  - 120 MICRONS VS 50 MICRONS
- ABLATION AMOUNT:
  - 6.5MM ZONE = 15 MICRONS
    - LESS GLARE/HALOS
    - MORE TISSUE ABLATED
  - 6.0MM ZONE = 12 MICRONS
    - MORE GLARE/HALOS
    - LESS TISSUE ABLATED
    - PUPIL SIZE?
- REFRACTION:
- OD: -3.50 -0.25 X 155
- OS: -3.75 -0.25 X 162

OD: 3.50x15= 52.5 + 120= 172.5
OS: 3.75x15= 56.25 +120= 176.5

Δ Pach LASIK
OD thinnest pach: 491 - 172.5 = 318.5
OS thinnest pach: 489 - 176.5 = 312.5

Δ Pach PRK
OD: 491 - 102.5 = 388.5
OS: 489- 106.5 = 382.5

ΔK's
3.75 x 0.8 = 3
43 - 3 = 40

So which procedure should we do?

8

CASE #1

- CONSIDERATIONS:
  - CORNEAS < 500 MICRONS[3]
    - MANY SURGEONS LIMIT LASIK TO >500 MICRONS
    - CONVERT TO PRK IT <500 MICRONS
  - ENHANCEMENT ABILITY IN THE FUTURE
    - HOW MUCH TISSUE WILL WE HAVE REMAINING?
      - LESS THAN 320 MICRONS- ENHANCEMENT POLICY DISCUSSED
    - HOW FLAT/STEEP ARE WE MAKING THE CORNEA?
  - PUPIL SIZE
  - ZONE
    - DO WE NEED TO CROP?

SO WHAT DID WE DECIDE?

PRK!

9

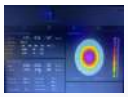
CASE #1

- WE ARE THE GATEKEEPERS!
  - WE- THE PATIENT AND OPTOMETRIST- DECIDE TOGETHER WHICH SURGERY WILL PROVIDE BEST OUTCOME
    - WHAT IS SAFEST
    - WHAT WILL GIVE BEST VISUAL PROGNOSIS
- WE GET TO ESTABLISH A RELATIONSHIP WITH THE PATIENT
  - WHO WILL BETTER UNDERSTAND THE PATIENT'S DAY TO DAY NEEDS?

10

CASE #1

- WAVEFRONT GUIDED:
  - LESS TISSUE CONSUMING[5]
  - LESS TIME CONSUMING PREOPERATIVELY
  - POSSIBLY FAVORED FOR ENHANCEMENTS[5]
- TOPOGRAPHY GUIDED:
  - MORE TISSUE CONSUMING[5]
  - SENSITIVE TO HIGHER ORDER ABERRATIONS[5]
  - BETTER CONTRAST SENSITIVITY[6]
  - MORE TIME CONSUMING PREOPERATIVELY
  - CAN BE USED WITH CORNEAL SCARRING[5]



OD: Residual stroma: 290 vs 277

OS: Residual stroma: 281 vs 277

5. Asiandes, Ioanni, Mencia, AS. "Wavefront-Guided vs Topography-Guided." Cat and Refractive Surg Today. May 2006.
6. Alio JL, Montes-Mico R. Wavefront-guided versus standard LASIK enhancement for residual refractive errors. Ophthalmology. 2006;113(2):191-197.

11

CASE #1

12

CASE #1

13

CASE #1

- DAY 1 POST-OP
  - OD UCDVA: 20/25+
  - OS UCDVA: 20/20
- 4 DAY POST-OP
  - OD: 20/20
  - OS: 20/30
  - BCL REMOVED OU AT THIS APPT
- 1 MONTH POST-OP
  - OD: 20/20
  - OS: 20/20

- MEDICATION INSTRUCTIONS:
  - MOXIFLOXACIN- QID FOR 7 DAYS
  - PREDNISOLONE- QID, TID, BID, QD EACH FOR 7 DAYS
  - BROMFENAC- BID FOR 7 DAYS
  - ATIVAN (lorazepam)*- PATIENT GIVEN 2 1mg TABLETS
  - GABAPENTIN**- 1 300mg CAPSULE TID FOR 4 DAYS
  - PRESERVATIVE FREE TEARS- MINIMUM OF QID FOR 30 DAYS

GABAPENTIN: SIGNIFICANTLY REDUCED POST OPERATIVE PAIN AFTER PRK[7]

*Lorazepam is a schedule IV medication
**Gabapentin is a schedule V medication in some states

7. Lichtinger, alejandra, et al. "Gabapentin for postoperative pain after photorefractive keratectomy: a prospective, randomized, double-blind, placebo-controlled trial." J Refract Surg. 2011; 27(8): 613-617.

14

CASE #1 FINAL THOUGHTS

- PATIENT EDUCATED AND BROUGHT INTO SURGICAL DECISION MAKING
- LOOK AT HIGHER ORDER ABERRATIONS!
- CONSIDER FUTURE INTERVENTIONS THAT MAY BE NECESSARY
- PRK DOESN'T HAVE TO BE SCARY

15

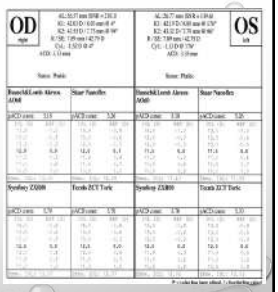
CASE #2: EDOF IOL, YAG CAPSULOTOMIES… AND NOW WHAT??

- 58YOM PRESENTS WITH COMPLAINTS OF:
  - HAZY/CLOUDY VISION THAT IS INTERFERING WITH HIS JOB
  - GLARE AND HALOS AT NIGHT
  - FEELS THAT VISION HAS DECREASED SIGNIFICANTLY OVER THE PAST YEAR
- VA:
  - OD: -6.00 -0.25 X 091 20/70-1
  - OS: -6.00 -0.25 X 070 20/60-2
  - GLARE: 20/200 OD AND OS

16

CASE #2

- ANTERIOR SEGMENT:
  - WNL
  - LENS:
    - OD 3+ NUCLEAR SCLEROSIS, 3+ CORTICAL SPOKES
    - OS 3+ NUCLEAR SCLEROSIS, 3+ CORTICAL SPOKES
- POSTERIOR SEGMENT:
  - WNL
- DIAGNOSIS: COMBINED CATARACTS OU
- RECOMMENDATION: KPE W/ IOL
  - AFTER PATIENT EDUCATION AND DISCUSSION, DETERMINED THAT PATIENT IS A GOOD CANDIDATE FOR EDOF (SYMFONY) IOL AND PATIENT ELECTS TO PROCEED OU
    - OD FIRST AND OS TO FOLLOW



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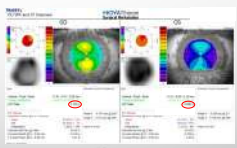

HOA<0.32OU

18

CASE #2

- POST OPERATIVE MEDICATIONS:
  - PATIENT GIVEN THE OPTION
    - DROPS:
      - ANTIBIOTIC- QID 1 WEEK
      - STEROID- QID, TID, BID, QD EACH FOR 1 WEEK
      - NSAID- BID FOR 1 MONTH
    - COMBINATION DROP:
      - COMBINED ANTIBIOTIC/STEROID: QID, TID, BID, QD EACH FOR 1 WEEK
        - OPTIONAL NSAID
  - DROPLESS:
    - TRIAMCINOLONE/MOXIFLOXACIN
      - PARS PLANA OR TRANS-ZONULAR INJECTION
- PATIENT ELECTED TO PROCEED WITH DROPLESS

19

CASE #2

DROPLESS PROS	DROPLESS CONS
• INCREASED PATIENT COMPLIANCE	• FLOATER COMPLAINTS
• DECREASE IN COST TO PATIENT	• BREAKTHROUGH INFLAMMATION
• DECREASE IN ENDOPHTHALMITIS[8]	• DROPS NEEDED AT THAT TIME
	• DIFFICULTY CONTROLLING IOP SPIKE
	• POSSIBLE INCREASE IS TASS[9]

8. Ilsoh M. "Less Is More: What You Need to Know about Dropless Cataract Surgery." Review of Optometry. 15 May 2017. [illegible]
9. Patel, Kishan, Abbey, Ashkan. "A Toxic Side Effect of Dropless Surgery." Retina Today. Nov/Dec 2022. https://retinatoday.com/articles/2022-nov-dec/a-toxic-side-effect-of-dropless-surgery.

20

CASE #2

- 1 DAY POST OP OD- SYMFONY TORIC- DROPLESS
  - OD: UCDVA 20/20-
  - ANTERIOR SEGMENT OD:
    - TRACE MICROCYSTIC CORNEAL EDEMA
    - TRACE ANTERIOR CHAMBER CELL
    - IOL IN GOOD POSITION
  - RTC 1 WEEK FOR 1 WEEK P/O
  - DROPLESS:
    - TRIAMCINOLONE/MOXIFLOXACIN 0.2ML
      - IMPRIMIS
      - PARS PLANA INJECTION
- 1 WEEK POST OP OD, REC OS-
  - OD: UCDVA 20/20-
  - OS: UCDVA CF 3FT
  - ANTERIOR SEGMENT OD:
    - WNL
    - TORIC MARKINGS NOTED AT 93°
  - ANTERIOR SEGMENT OS:
    - LENS: NS 3+, SPOKES 3+
  - POSTERIOR SEGMENT OS:
    - WNL

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CASE #2

22

CASE #2

23

CASE #2

- 1 DAY POST OP OS- SYMFONY WITH LRI- DROPLESS
  - OD: UCDVA 20/20
  - ANTERIOR SEGMENT OS:
    - TRACE MICROCYSTIC CORNEAL EDEMA
    - TRACE ANTERIOR CHAMBER CELL
    - IOL IN GOOD POSITION
  - RTC 1 WEEK FOR 1 WEEK P/O

- 1 WEEK POST OP OS
  - OS: UCDVA 20/20
  - ANTERIOR SEGMENT OS:
    - WNL
- 1 MONTH POST OP OU:
  - OD: UCDVA 20/20
  - OS: UCDVA 20/20
  - ANTERIOR SEGMENTS OU:
    - WNL
- MANIFEST REFRACTION
  - OD pl sph DVA: 20/20
  - OS +0.25 -0.25 @ 015 DVA: 20/15
  - PATIENT EDUCATION
    - YAG

24

CASE #2

- PATIENT RETURNS 1 YEAR LATER FOR COMPREHENSIVE EXAMINATION
  - HAS NOTICED THAT VISION HAS DECREASED AT ALL RANGES AND INCREASED GLARE
  - UCDVA OD 20/25 OS 20/40+
  - GLARE OD 20/40- OS 20/70
  - DIAGNOSIS:
    - PCO 2+ OU
      - RECOMMEND YAG CAPSULOTOMY OU
      - PREDNISOLONE BID OU FOR 7 DAYS

- 1 WEEK P/O YAG OU
  - UCDVA OD 20/20
    OS 20/20
  - D/C PREDNISOLONE AT THIS TIME

25

CASE #2

- PATIENT RETURNS 1 YEAR LATER
  - CHIEF COMPLAINT: VISION HAS BEEN DOING GREAT UNTIL I WAS GRINDING AT WORK EARLIER TODAY…

- WORKMANS COMP CASE
  - MUST SEE URGENT CARE FIRST
  - URGENT CARE REFERS TO US
    - "WE WERE ABLE TO GET SOME PARTICLES OUT OF THE RIGHT EYE BUT WE WERE SCAPING AND COULD NOT GET EVERYTHING OUT"

"I WAS WEARING SAFETY GLASSES… BUT I DID PULL THIS OUT OF MY EYE"

26

CASE #2

- UCDVA OD 20/150
  - DID NOT TAKE IOP!
  - DIAGNOSIS:
    - 5MM FULL THICKNESS CORNEAL LACERATION ADJACENT TO PUPIL WITH VITREOUS TO THE WOUND
      - (+)SEIDEL SIGN
  - RECOMMENDED IMMEDIATE SURGICAL REPAIR
    - FOX SHIELD OVER PATIENT OD
      - STRICT INSTRUCTIONS TO NOT TOUCH EYE
    - SURGERY CENTER NOTIFIED
    - PATIENT TRANSFERRED IMMEDIATELY

27

CASE #2

- SURGICAL REPAIR:
  - 3 BURIED CORNEAL SUTURES
    - CONSIDERATION FOR REMOVAL ONLY AFTER 6 WEEKS[10]
  - VITREOUS REMOVED FROM AC
  - WOUND HYDRATED
    - (-) SEIDEL SIGN FOLLOWING REPAIR
  - BCL PLACED DURING PROCEDURE
  - 0.1 ML TRI/MOXI BY PARS PLANA INJECTION
    - INTRAVITREAL ANTIBIOTICS HAVE BEEN SHOWN TO REDUCE RISK OF ENDOPHTHALMITIS FOLLOWING OPEN GLOBE INJURIES[11]
  - DROPS:
    - OFLOXACIN QID
    - PREDNISOLONE QID
  - RTC FOR 1 DAY POST OP
- DISCUSSION INCLUDED:
  - POST-OP INSTRUCTIONS
  - GUARDED VISUAL PROGNOSIS
  - IMPORTANCE OF EYE SHIELD AND POST OPERATIVE MEDICATIONS
  - FOLLOW UP VISIT

10. Armstrong, Greyson. "10 Need to Know: 8 Pearls in Evaluating and Managing Open Globe Injuries." Jan. 2022. https://www.aao.org/eyenet/article/10-need-to-know-8-pearls-in-evaluating-managing-open-globe-injuries. June 25, 2023.

11. Abbassmoh, Marwan, et al. "Prophylactic intravitreal antibiotics reduce the risk of post-traumatic endophthalmitis after repair of open globe injuries." Acta Ophthal. May 2018; 96(3): 213-223.

28

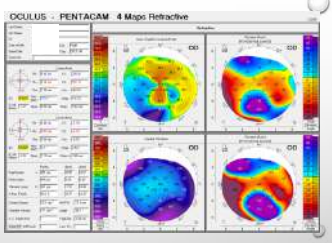
CASE #2

- 1 DAY POST OP- CORNEAL LACERATION
  - UCDVA OD HM 2FT
  - IOP WITH ICARE OD 8MMHG
  - (-)SEIDEL SIGN
    - BCL REMOVED AT THIS TIME
  - 3 SUTURES NOTED
- 1 WEEK POST-OP
  - UCDVA OD 20/250
  - IOP WITH ICARE 11MMHG
  - BEGIN PREDNISOLONE TAPER
    - TID, BID, QD EACH FOR 1 WEEK
  - D/C OFLOXACIN AT THIS TIME
  - RTC 3 WEEKS

29

CASE #2

- 1 MONTH POST OP- CORNEAL LACERATION
  - UCDVA 20/100
    - PH 20/80
  - CORNEAL SCAR NOTED
  - D/C PREDNISOLONE
  - APPT MADE TO REMOVE SUTURES



30

CASE #2

- 3 MONTH POST OP VISIT
  - UCDVA OD 20/70
    - PH OD 20/40-
  - SUTURES REMOVED AT TODAY'S VISIT
    - BCL PLACED OVER CORNEA FOR COMFORT
      - REMOVE IN 1-2 DAYS
- CURRENTLY
  - UCDVA OD 20/60-
  - OD: PL -2.00 @ 094 DVA: 20/30 -1

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CASE #2

- WHAT ARE MY OPTIONS NOW?
  - GLASSES VS SCLERAL CONTACT LENS VS SOFT CONTACT LENS
  - PRK?
    - WAVEFRONT GUIDED[5]
- PROGNOSIS?
- WOULD IOL CHOICE BE DIFFERENT KNOWING WHAT WAS TO COME?

32

CASE #2 FINAL THOUGHTS

- TIMING IS EVERYTHING AND HINDSIGHT IS 20/20
- IMPORTANCE OF PATIENT EDUCATION IN WHAT OUR ROLE AS THEIR PRIMARY EYE PHYSICIAN IS
- KEEP FOX SHIELDS IN YOUR OFFICE!

33

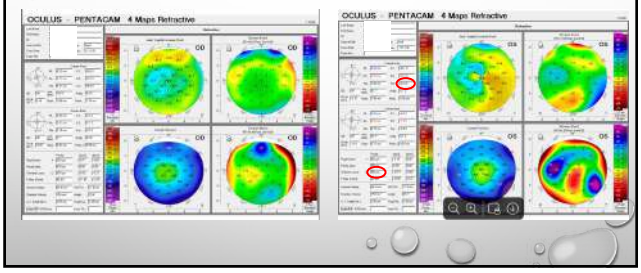
CASE #3: WHEN WE MIX AND MATCH

- 67YOF PRESENTS FOR CATARACT EVALUATION WITH WANT TO HAVE TO WEAR GLASSES/CONTACTS AS LITTLE AS POSSIBLE
  - HISTORY OF LASIK IN 2003
  - OD -1.50SPH 20/30-
  - OS -1.00 -3.25 X 105 20/40-2
  - GLARE:
    - OD: 20/40-
    - OS: 20/60-
  - ANTERIOR SEG:
    - FLAP NOTED OU
    - CORNEAL ECTASIA OS (mild)[12]
      - No scarring
      - Topography <53D
      - Corneal thickness >475 microns
      - Stable over the course of 15+ years
  - POSTERIOR SEG:
    - WNL

12. Davis, Robert, Miller, William. "Staging ectatic diseases: a therapeutic approach." Contact Lens Spectrum. 2015. 30: 34-36, 38-40.

34

CASE #3



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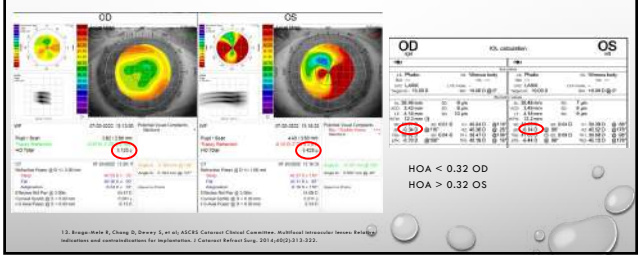
CASE #3

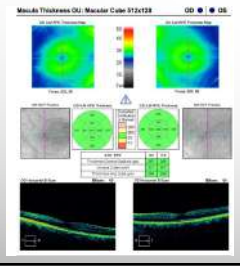


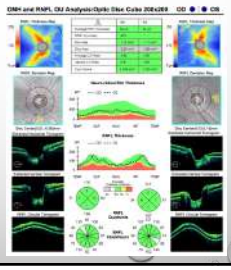
HOA < 0.32 OD
HOA > 0.32 OS

12. Braga-Mele R, Chang D, Dewey S, et al; ASCRS Cataract Clinical Committee. Multifocal intraocular lenses: Relative indications and contraindications for implantation. J Cataract Refract Surg. 2014;40(2):313-322.

36

CASE #3





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CASE #3

- "NEAR VISION IS MORE IMPORTANT TO ME THAN GLARE"
- SO WHAT ARE OUR OPTIONS AND HOW DO WE EDUCATE THE PATIENT?
  - MONOVISION?
  - MULTIFOCAL?
    - TRIFOCAL (PANOPTIX) SHOWING ACCEPTABLE VISUAL OUTCOMES IN POST REFRACTIVE SURGERY PATIENTS[14]
    - HISTORICALLY, MF IOLS HAVE BEEN AVOIDED IN POST REFRACTIVE PATIENTS
  - EXTENDED DEPTH OF FOCUS?
    - HAVE SHOWN SUCCESSFUL VISUAL RESULTS IN POST REFRACTIVE SURGERY[15]

14. Blaylock, John, Hall, Brad. "Refractive outcomes following trifocal intraocular lens implantation in post-myopic LASIK and PRK eyes." Clin Ophthalmol. 2022. 16. 2129-2136.
15. Christopher, et al. "Comparison of Visual Outcomes of Extended Depth of Focus Lenses in Patients with and without Previous Laser Refractive Surgery." Journal of refractive surgery. 2020; 36(1): 28-32.

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CASE #3

- TRIFOCAL OD: PANOPTIX
  - LOW HIGHER ORDER ABERRATIONS
  - MORE NEAR/DISTANCE
- TORIC IOL:
  - DISTANCE VISION
  - GOOD INTERNAL HEALTH
  - HIGH HIGHER ORDER ABERRATIONS
- OD FIRST WITH OS TO FOLLOW
- PATIENT RISKS DISCUSSED
  - NO POSSIBILITY OF PRK/LASIK ENHANCEMENT OS
    - INCLUDED IN CONSENT FORM
  - RISK OF GLARE/HALOS ESPECIALLY OS
  - MODIFIED MONOVISION

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CASE #3

- 1 DAY P/O OD PANOPTIX:
  - UCDVA: 20/25+
  - 1+ MICROCYSTIC EDEMA
  - 1+ AC CELL
  - IOP 13MMHG WITH ICARE
- 1 WEEK P/O OD:
  - UCDVA: 20/25+
  - UCNVA: 20/30
  - ANT SEG WNL
  - IOP 12MMHG WITH ICARE

- 1 DAY P/O OS TORIC:
  - UCDVA: 20/50
  - 1+ STROMAL AND MICROCYSTIC EDEMA
  - 2+ AC CELL
  - IOP 13MMHG WITH ICARE
- 1 WEEK P/O OS TORIC:
  - UCDVA: 20/40
  - UCNVA: 20/40
  - ANT SEG: WNL
  - TORIC MARKINGS NOTED @ 002
  - IOP 10MMHG WITH ICARE

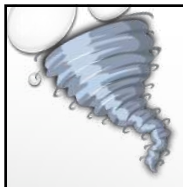
40

CASE #3

- 1 MONTH P/O OU
  - UCDVA: OD: 20/25
    OS: 20/25
    OU: 20/25+
  - UCNVA: OD: 20/20-
    OS: 20/40-
    OU: 20/20

- PATIENT REPORTS VISION IS DOING "PRETTY GOOD!"
- ANT SEG OU: WNL
- MANIFEST REFRACTION:
  - OD -0.25, -0.25 X 007 DVA: 20/25
  - OS -0.25SPH DVA: 20/25 +1
- RTC 5-6 MONTHS FOR PCO CHECK

41



CASE #3 FINAL THOUGHTS

- CONSIDERATION OF HIGHER ORDER ABERRATIONS AND APPROPRIATE LENS OPTIONS
- PATIENT EDUCATION
- IMPORTANCE OF PRE-OPERATIVE TESTING
- ONE LENS TYPE MAY NOT BE APPROPRIATE FOR BOTH EYES

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CASE #4: AN ABRASIVE EROSION

- 48YOM PRESENTS WITH PAIN IN OD
  - "WAS CUTTING A TREE YESTERDAY- WITH SAFETY GLASSES ON- AND SOMETHING GOT IN THE RIGHT EYE AND IT HAS BEEN EXTREMELY PAINFUL SINCE"
  - DVA: OD: 20/CF2 FT
    OS: 20/20
  - IOP: OD: NOT TAKEN
    OS: 12MMGH WITH ICARE
  - ANTERIOR SEGMENT:
    - CORNEA OD: 4X5MM CENTRAL ABRASION NOTED
    - NO FB NOTED ON EYE OR UPON LID EVERSION OD

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CASE #4

- DIAGNOSIS: CORNEAL ABRASION OD
- PLAN:
  - BANDAGE CONTACT LENS
  - MOXIFLOXACIN QID OD
  - PF TEARS Q1H
  - PRESCRIBED GABAPENTIN 300MG
    - TAKE 1 CAPSULE TID FOR 4 DAYS
  - RTC 1 DAY FOR RECHECK

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CASE #4

- 1 DAY POST ABRASION:
  - PATIENT COMPLAINING OF CONTACT LENS INTOLERANCE
  - VA OD: 20/400
    - IMPROVED FROM CF 2 FT
  - BCL IN PLACE
    - EPITHELIUM HEALING WITH DEFECT MEASURING 2X3MM CENTRALLY
  - CONTINUE ANTIBIOTIC AND TEARS- RTC 2 DAYS

- 3 DAY POST ABRASION:
  - PATIENT COMPLAINING OF CONTACT LENS INTOLERANCE THAT IS WORSENING
  - VA OD: 20/250
  - BCL REMOVED
  - LINEAR EPITHELIAL STAINING NOTED
    - TRACE
  - DECISION MADE TO KEEP BCL OFF DUE TO PATIENT EXPRESSING HOW MUCH BETTER HE FELT WITHOUT IT
  - CONTINUE ANTIBIOTICS FOR THE WEEKEND
  - RTC NEXT WEEK FOR RECHECK
  - TEARS: MINIMUM OF QID
  - LUBRICATING OINTMENT QHS

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CASE #4

- 4 DAYS LATER: PATIENT RETURNS TO OFFICE- "PAIN IS BACK AND I THINK IT'S ACTUALLY WORSE."
  - VA OD: CF 2FT
  - CORNEA: 5MM AREA OF CORNEAL EROSION WITH NO EPITHELIAL DEFECT
    - NEW EPITHELIAL TISSUE "FLOATING" AND NOT ADHERED TO CORNEA
  - RECOMMENDED CORNEAL DEBRIDEMENT WITH DIAMOND BURR POLISH AND AMNIOTIC MEMBRANE
    - PROKERA SLIM MEMBRANE USED
      - SOME RESEARCH SHOWING USE OF AMNIOTIC MEMBRANE MAY ALLOW PATIENT TO HAVE LONGER TIME PERIODS BETWEEN EROSIONS[16]
      - COMPARED TO DEBRIDEMENT AND BCL- AMNIOTIC MEMBRANE AND DEBRIDEMENT REDUCED RATE OF RECURRENCE[17]
  - APPROXIMATELY 6X6 AREA OF EPITHELIUM DEBRIDED

16. Finch Crouch, Jessica. "My Patient has Recurrent Corneal Erosion…Now What?" April 2019. Review of Optometry.
17. Hauswirth, Scott, Hom, Milton. "Cryopreserved Amniotic Membrane After Epithelial Debridement for Recurrent Corneal Erosion" ARVO Journals. Sept. 2016.

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CASE #4

- PATIENT EDUCATION:
  - MEDICATIONS:
    - CONTINUE MOXIFLOXACIN QID
    - BEGIN PREDNISOLONE QID
    - BEGIN NSAID BID
    - GABAPENTIN REFILL
    - PF TEARS Q1-2H
  - DISCUSSED AWARENESS OF AMNIOTIC LENS AND BLURRINESS OF VISION
    - TAPE EYELID?
  - RTC 1-2 DAYS

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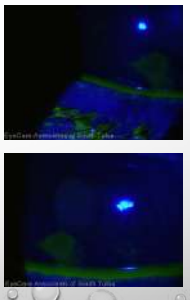
CASE #4

- 1 DAY P/O DEBRIDEMENT WITH AMNIOTIC MEMBRANE
  - PATIENT REPORTS THAT HE IS DOING BETTER TODAY
  - MEMBRANE REMOVED TO ASSESS HEALING
  - VA OD: 20/400
  - MEMBRANE REPLACED
  - CONTINUE ALL MEDICATIONS AS PREVIOUSLY PRESCRIBED
  - RTC 4-5 DAYS FOR MEMBRANE REMOVAL



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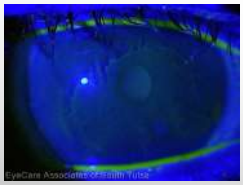
CASE #4



- 5 DAY P/O DEBRIDEMENT WITH AMNIOTIC MEMBRANE
  - MEMBRANE DISSOLVED AND PROKERA SLIM RING REMOVED AT THIS VISIT
  - VA OD: 20/30
  - MEDICATIONS:
    - CONTINUE PF TEARS Q1-2H
    - START HYPERTONIC DROPS/OINTMENT
    - BEGIN STEROID TAPER
    - PATIENT REQUESTED TO D/C NSAID
    - D/C MOXIFLOXACIN
    - D/C GABAPENTIN
  - RTC 3-4 WEEKS FOR RECHECK
- DISCUSSED CONSIDERATION OF PTK (PHOTOTHERAPEUTIC KERATECTOMY) IF EPITHELIUM DETACHES/ERODES AGAIN

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CASE #4 FINAL THOUGHTS

- COST FOR PATIENT
  - INSURANCE CHECK BEFORE PLACEMENT OF AMNIOTIC MEMBRANE!
- DEBRIDEMENT AND PRK- NOT SO UNALIKE!
- DIFFERENT SURGICAL/PROCEDURE APPROACHES FOR CORNEAL EROSIONS
- PAIN MANAGEMENT

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THANK YOU!

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