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204 - Co-Management of Patients in the Age of Technology

Ryan McKinnis, OD, FAAO, FSLs

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Two Steps to Receive CE Units

- Complete the course evaluation
- Hand in your course ticket at the conclusion of this course

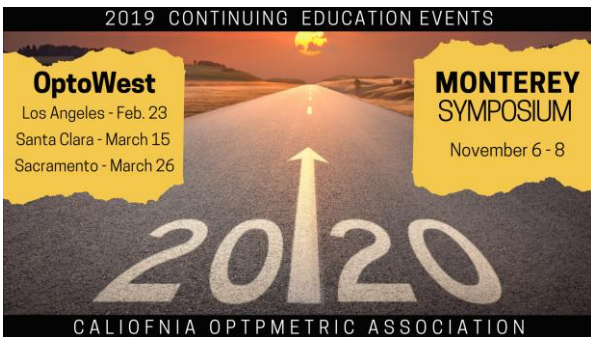
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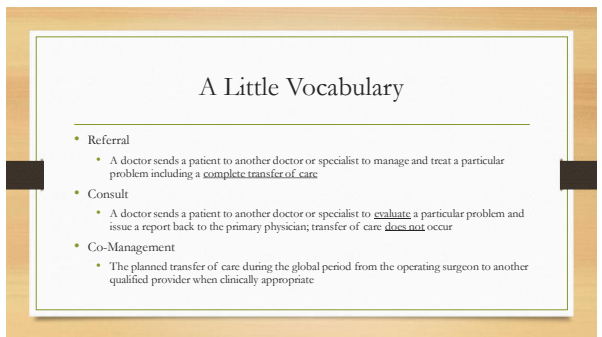
Speaker Disclosures

Commercial Interest	Nature of Relevant Financial Relationship	Title or Role
SynergEyes	Honoraria	Speaker
International Keratoconus Academy	Honoraria	Speaker
Reed Expositions (Vision Expo)	Honoraria	Speaker

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Valid Co-Management

- **Transfer of Care**
 - The transfer of care from the surgeon to the co-managing optometrist can only occur when it is medically acceptable
 - Determination of medical acceptability must be made by the surgeon AND the patient
 - The specific date for transfer of care cannot be officially determined prior to the surgery
- **Informed Consent**
 - The patient must sign a written agreement to be co-managed
 - Both the surgeon and the co-managing provider must keep a signed copy of the agreement in the patient's medical file

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Billing Co-Management Services

- Reimbursement for post-operative care of ophthalmic procedures is 20% of the surgical fee allowance
- If more than one doctor provides post-operative care payments will be divided based on the number of days for which each doctor was responsible
- *Commercial payors may have different guidelines and some commercial plans may not allow for co-management*

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Billing Co-Management Services

- The surgeon must initiate the process by submitting the claim for surgery with the medical insurer
 - The -54 modifier is added if the patient will be co-managed
 - Ex: Cataract Surgery (Right Eye) = 66984-RT-54
- The co-managing provider submits a claim after the first visit at which the patient is examined
 - Date of service is the date of surgery
 - -55 modifier is required
 - Date of transfer of care must be noted in box 19
 - Ex: Cataract Surgery (Right Eye) = 66984-RT-55

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The (Almost) Game-Changer

- In 2014 CMS issued a bulletin implementing a plan to move all surgical procedures to a global period of zero days
 - Targeted cardiovascular, orthopedic, and ophthalmological surgeries
- Stiff resistance encountered from organized medicine
 - Transfer of costs to patients
- Congress passed MACRA in 2015
 - Ended the sustainable growth model for Medicare
 - Banned CMS from implementing their plans for surgical global periods
 - Directed CMS to obtain data from a "representative sample of physicians" to determine proper reimbursement (begins 1/1/2017)

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Co-Management of Common Ophthalmic Procedures

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Cataract Surgery Statistics

- 3.6 million cataract surgeries performed in 2015
 - Approximately 19,000 practicing ophthalmologists in the U.S.A.
 - Approximately 9,000 ophthalmologists perform cataract surgery

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Modern Cataract Surgery

- May utilize femtosecond laser technology
- May utilize intraoperative aberrometry to guide lens selection
- “Drop-less” protocol reduces post-operative costs
 - A combination of steroids and antibiotics are injected into the vitreous and sub-Tenon's space to reduce post-op inflammation and discomfort

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Modern Cataract Surgery

- Multitude of IOLs
 - Toric (AcrySof IQ, Tecnis Toric, Staar Toric)
- Helpful Hints
 - Every degree of misalignment results in a 3.3% reduction in cylinder correction
 - Consider dilating toric IOL patients on day 1 to quickly identify a misaligned IOL

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Modern Cataract Surgery

- Presbyopia Correction
 - Multifocal IOLs (AcrySof Restor, Tecnis Multifocal)
 - Beware of glare & halos
 - Accommodative IOLs (Crystalens AO, TruSign Toric IOL)
 - Less glare & halos
 - Poorer near vision on average
- Extended Depth of Focus Lenses (Tecnis Symfony)
 - Elongated focal point intended to smooth out dips in the defocus curve
 - Less glare and halos but near vision slightly less than that of multifocal IOLs
 - Available in a toric design

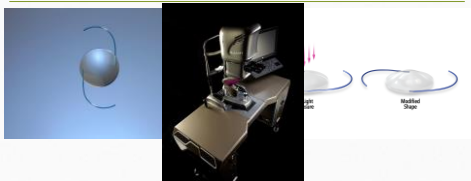
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New IOL Option

- Light Activated Lens
 - Allows for customization based on patient's resultant Rx following post-operative healing
 - Requires 2-3 light delivery treatments to finalize Rx
 - Patients must wear UV blocking glasses until final treatment is delivered

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LAL: The Process



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LAL: Potential Pitfalls

- Patients must be able to be fully dilated to 7-8 mm in order to receive the full treatment
- Failure to wear UV blocking glasses may cause the lens to prematurely “lock”
- Extra visits


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General Complications

- Corneal Edema
 - Very common near incision sites
 - Self-limiting unless endothelium is compromised
- Elevated IOP
 - 18-45% of patients have IOPs >28 mmHg immediately after surgery
 - In healthy patients IOPs need to be treated when approaching 40 mmHg
 - Topical anti-glaucoma meds (alpha-agonist, CAI, beta-blocker)
 - Wound paracentesis

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Burping the Wound



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Potential Complications

- Retained Lens Material
 - Fragments may be residual from nucleus or cortex
 - More common in high myopes and those with miotic pupils



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Proper Management

- Identification
 - Fragments present in the anterior chamber (must rule out fragments in angle)
 - Corneal edema that fails to resolve
 - Iritis that worsens despite treatment
- Treatment
 - Switch to prednisolone acetate if not currently in use
 - Increase pred acetate 1% to q2h
 - Refer to surgeon for possible removal of retained material if condition fails to resolve
 - Cortex is phagocytosed; Nucleus must be surgically removed

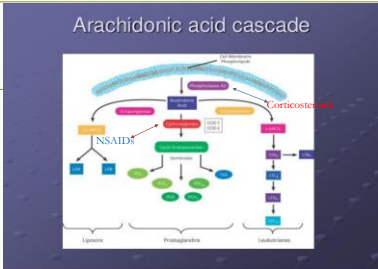
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Post-Operative Complications

- Cystoid Macular Edema
 - Most common cause of decreased vision in patients after cataract surgery (1-3%)
 - 50% chance of occurrence in fellow eye if present in first eye
 - Causes
 - Unknown
 - Identify high-risk patients
 - Diabetes
 - Vein Occlusions
 - Uveitis

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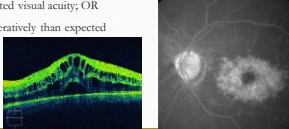
Arachidonic acid cascade



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Proper Management

- Identification
 - Commonly presents between 2-4 weeks post-operatively
 - Unable to correct patients to expected visual acuity; OR
 - More hyperopic refraction post-operatively than expected



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Proper Management

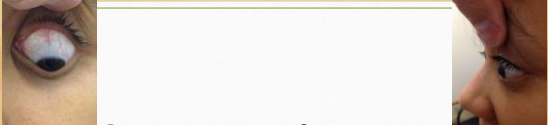
- Treatment
 - Prophylactic – injectable anti-inflammatories at time of surgery
 - Initial Presentation – switch to prednisolone acetate or Durezol and add NSAID
 - Recalcitrant Cases – referral to retinal specialist for Sub-Tenon's or intravitreal steroid
 - Rare (but possible) to require anti-VEGF injections

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Post-Operative Complications

- Endophthalmitis**
 - Onset 3-7 days following surgery
 - Corneal edema, blurred vision, A/C reaction with hypopyon
 - Vitritis is present
- Toxic Anterior Segment Syndrome (TASS)
 - Onset 1-3 days following surgery
 - Corneal edema, blurred vision, A/C reaction with hypopyon
 - Vitreous is clear

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Co-Management of Keratoconus

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**International Keratoconus Academy
of Eye Care Professionals**
www.keratoconusacademy.com



International Keratoconus Academy
Of Eye Care Professionals

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Mission: to promote and develop the knowledge base and awareness of the state of the art pertaining to the diagnosis and management of keratoconus and other forms of corneal ectasia. And further to promote the awareness and understanding of the most appropriate and effective treatment strategies for the management of these diseases.

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MEDICAL ADVISORY BOARD

Optometry: Barry Weissman, Louise Scalfani, Christine Sindt, Jeff Sonsino, Lynett Johns, Robert Davis, Tim Edrington, Melissa Barnett, Susan Gromacki, Ryan McKinnis, Ed Bennett, Steven Sorkin, Jan Bergmanson.

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MDs: Florence Malet, Farhad Hefezi

Allied Health Professionals: Craig Norman, Pat Caroline

Organizational Collaboration: Mary Prudden – National Keratoconus Foundation (NKF)


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Dx of KC

LATE

- Corneal Hydrops
- Munson's sign
- Apical Scarring
- Fleischer's Ring
- Vogt's Striae
- Irregular Mires
- Abnormal Topography
- Pachymetric Anomalies
- Post. Curvature/Elevation
- Biomechanical Weakness
- ???


EARLY



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KERATOCONUS: CAUSES

- Genetics
 - 1 in 10 chance of a blood relative of a keratoconic patient developing keratoconus
- Environmental
 - Eye Rubbing
 - Allergies
 - Oxidative Stress



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CXL: A LITTLE HISTORY...

- Cross-linking has been used for centuries to tan leather
- Dentists have used it for 25 Years to stiffen plastic materials
- Dermatologists have used it to tighten collagen fibers in sagging skin
- Why not use it on weakened corneas to arrest keratactasias?





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CXL: THEN AND NOW



LIQUID FORMULA



UV LIGHT






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
CXL: Mechanism of Action

- Corneal CXL is a medical procedure that incorporates photochemical principles
 - Light source + photoactivating agent
 - UVA absorption by riboflavin generates singlet oxygen essential for formations of new cross-links¹
- Cross-linking²:
 - Creates new corneal collagen cross-links
 - Early results show shortening & thickening of collagen fibrils
 - Leads to the stiffening of the cornea

Less Cross-linking (weaker)



More Cross-linking (stronger)



1. Nathan P, Friedman MS, Chen F, Miller D. Photochemical basis of corneal cross-linking with riboflavin. Invest Ophthalmol Vis Sci. 2013;54(10):3100-7.
 2. Mathew MJ, O'Connell C. Subcellular 3D reconstruction of corneal cross-linking induced by riboflavin cross-linking. J Cornea. 2016 Aug; 35(8):1248-58.

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Riboflavin + UVA vs. Riboflavin Only (30min Treatment)

Anterior View

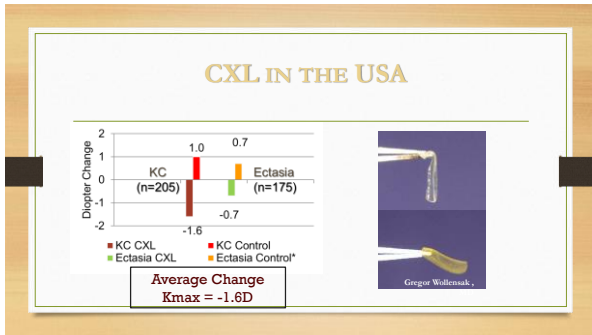


Posterior View



Axis, Fort, Edelhauser, and Skaffig, unpublished

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CXL IN THE USA

RIBOFLAVIN

FINALLY APPROVED!!

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CXL IN THE USA

- Avedro received FDA approval in 2016
- Progressive KC (04/16)
- Post-refractive surgery ectasia (07/16)
- Photorexia Viscous/Photorexia + KXL System

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CXL IN THE USA

INDICATION AND USAGE
Photorexia Viscous and Photorexia are photoenhancers indicated for use with the KXL System in corneal collagen cross-linking for the treatment of progressive keratoconus.

CONTRAINDICATIONS
None

WARNINGS AND PRECAUTIONS
Ulcerative keratitis can occur. Monitor for resolution of epithelial defects.

ADVERSE REACTIONS
The most common ocular adverse reactions in any CXL-treated eye were corneal opacity (haze), punctate keratitis, corneal striae, corneal epithelium defect, eye pain, reduced visual acuity, and blurred vision.

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CXL IN THE USA

- CXLUSA
 - Evaluation of Epi-on vs. Epi-off
 - Treatment of the following conditions:
 - Keratoconus
 - Pellucid Marginal Degeneration
 - Post-refractive ectasia
 - Post-RK Visual Fluctuation

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CXL IN THE USA

- CXLUSA also allows for CXL to be used in conjunction with:
 - Modification of Epi-on Technique
 - Intacs
 - Conductive Keratoplasty
 - PRK

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CXL IN THE USA

- Epi-Off
 - Removal of epithelium prior to application of riboflavin
 - Ensures penetration of riboflavin throughout cornea
- Potential complications
 - Delayed healing time
 - Increase in pain
 - Potential for scarring

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EPI-OFF COMPLICATIONS

- Retrospective review from 2007-2012 in Europe:
 - 206 eyes in 180 patients
 - 28 complications in 23 eyes
 - Delayed epithelial healing (4 eyes)
 - Hypertrophic epithelial healing (4 eyes)
 - Severe SPK >30 days (11 eyes)
 - Stenile infiltrates (4 eyes)
 - Microbial infiltrates (4 eyes)
 - Corneal Edema (1 eye)

Wattaroon D, Fankel S, Fuchs-Porel J. Early complications after etidring for keratoconus. Poster presented at American Academy of Ophthalmology Annual Meeting November 12, 2012, Chicago, IL.

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Tx EMERGENT ADVERSE EVENTS (TEAEs)

- In 293 KC eyes, the most common ocular AE in CXL-treated eyes were corneal opacity (haze¹), punctate keratitis, corneal striae, corneal epithelium defect, eye pain, reduced visual acuity, and blurred vision

Preferred Term	Keratoconus Studies		Experiences	
	CXL	Control	CXL	Control
Foreign body sensation	15 (5)	1 (1)	15 (14)	2 (2)
Eye pain	4 (2)	1 (1)	2 (2)	0
Cornea	1 (1)	0	2 (2)	0
Corneal haze	1 (1)	0	2 (2)	0
Lacrimation increased	5 (5)	0	9 (10)	1 (1)
Mesothelium gland dysfunction	1 (1)	1 (1)	3 (3)	2 (2)
Corneal discoloration	0	0	0	0
Corneal irregularity	14 (14)	2 (2)	7 (8)	4 (5)
Photophobia	11 (11)	0	11 (10)	0
Punctate keratitis	25 (25)	8 (8)	18 (20)	3 (3)
Visual blurring	36 (36)	2 (2)	15 (17)	4 (5)
Visual acuity decreased	31 (31)	8 (8)	32 (31)	1 (1)
Visual impairment	3 (3)	2 (2)	4 (4)	1 (1)
Visual disturbance	2 (2)	0	0	0

1) Results are presented as the number (%) of subjects with an event from baseline to Month 12.
2) Almost all cases of corneal opacity were reported as haze. Headache was reported in between 4 to 8% of treated patients.

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Tx EMERGENT ADVERSE EVENTS (TEAEs)

- During Mth 1: Majority of adverse events reported resolved
- Up to Mth 6: Corneal epi-defect, corneal striae, punctate keratitis, photophobia, dry eye and eye pain, and decreased visual acuity
- Up to Mth 12: Corneal opacity or haze
- In 1-2% of patients, corneal epithelium defect, corneal opacity and corneal scar continued to Mths

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EPI-ON COMPLICATIONS

- Question of Efficacy
 - Up to 5X more corneal stiffening in lab animals with epi-off
 - Progression of KCN noted in early retrospective review
- Early Conclusions
 - Loading time of 60-80 minutes required
 - Questionable results
 - Riboflavin mixed with Dextran cannot permeate the intact epithelium

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EPI-ON: THE SOLUTION

- Riboflavin
 - Develop hypotonic formulations without Dextran
- Treatment of Epithelium
 - Break hemidesmosomes with pharmaceuticals
- Patient Evaluation
 - Evaluate patients for riboflavin penetration rather than reliance on rigid timing rules

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EPI-ON: THE PROCEDURE

- Epi-On
 - Epithelium is softened through application of anesthetic
 - Riboflavin is alternated with the anesthetic for 45-60 minutes treatment to ensure full penetration



Roy Rubin MD

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EPI-ON: OUR PROTOCOL

- Modified Epi-On Procedure
 - Removal of 5 microns of tissue with the excimer laser
 - 25 minutes of riboflavin loading
 - Patient evaluation prior to treatment
 - Epi-off required for corneal thicknesses less than 400 microns
 - Ensures maximal stromal swelling to protect against UV damage

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SELECTION OF CANDIDATES

- Avedro (FDA criteria)
 - 14 years of age or older
 - Progressive keratoconus
 - Ectasia post-refractive surgery
- CXLUSA
 - At least 8 years of age (mirrors European criteria)
 - KCN/Ectasia/Pellucid
 - Post-RK Visual Fluctuation

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PRE-OPERATIVE MANAGEMENT

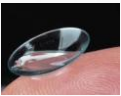
- Management of Expectations
 - No inherent refractive correction
 - Stabilization of corneal structure
 - Pain Management



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PRE-OPERATIVE MANAGEMENT

- Refractive/Contact Lenses
 - No contacts for four days prior to final pre-op exam
 - No contacts for 1 week prior to procedure
 - No contacts for 10-14 days following the procedure



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POST-OPERATIVE MANAGEMENT

- The "Givens"
 - Steroid
 - NSAID
 - Antibiotic
 - Bandage CL
 - Preservative-Free Artificial Tears

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POST-OPERATIVE MANAGEMENT

- The “Nuances”
 - When do you remove the bandage CL?
 - How do you handle complications?
 - What are effective pain management techniques?
 - Does the type of procedure require alterations to the treatment plan?



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POST-OPERATIVE MANAGEMENT

- Epi-Off CXL
 - The use of the bandage lens is recommended until re-epithelialization occurs
 - Stop the NSAID after 1 week
 - Stop the antibiotic once epithelium is intact
 - Balance the use of the steroid so as to eliminate scarring vs. inhibiting re-epithelialization
 - Use copious amounts of artificial tears

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POST-OPERATIVE MANAGEMENT

- Epi-On CXL
 - Bandage CL can typically be removed next day
 - Stop the NSAID after 1 week
 - Taper the steroid over 2 weeks
 - Use artificial tears liberally



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Co-Management of Complex Ocular Cases

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Congenital Cataracts

- Incidence
 - Affects 1 in 1,000 children from birth thru adolescence
 - More than 200,000 children are blind from an unoperated cataract
- Etiology
 - Approximately 50% of childhood cataracts are the result of genetic mutations in the genes that code for proteins involved in lens clarity and structure
 - Trauma
- Types
 - Congenital/Infantile
 - Juvenile/Acquired

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Congenital Cataracts

- Red Flags
 - Opacity on red reflex test at 6-8 weeks
 - Lack of a strong red reflex
 - Leukocoria



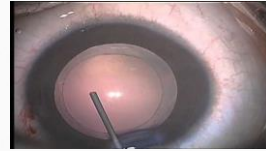
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Ophthalmological Exam

- Exam Under Anesthesia (EUA)
 - Only necessary if presence of cataracts is confirmed and a detailed view of the retina is unable to be obtained
- Unilateral Cataracts
 - Removal recommended by 6 weeks of age
- Bilateral Cataracts
 - Removal recommended by 8 weeks of age
 - If (+) family hx and (-) medical issues with the child then no work-up is indicated
 - If (-) family hx then a work-up is indicated to rule out a systemic or metabolic disease

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Pediatric Cataract Surgery



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Pediatric Cataract Surgery

- Post-Operative Medical Management
 - Topical steroids for 4-8 weeks
 - Topical antibiotics for 1-2 weeks
 - *Dr. Pierre has been taking advantage of sub-Tenon's injections and utilizing generic Maxitrol BID x 4 weeks*

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Pediatric Cataract Surgery

- Post-Operative Refractive Management
 - Failure to correct the child properly will result in deprivation amblyopia similar to that if the cataracts had been left in place
 - Soft Contact Lenses
 - Infants = SilSoft (B&L)
 - Children and Adolescents = Proclear Compatibles and Biofinity XR
 - Corneal RGPs
 - PediaSite

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Pediatric Co-Management

- A 2 month-old female is referred for evaluation of possible congenital cataracts
- Presence of cataracts is confirmed in conjunction with iris colobomas
- Surgery is scheduled within two weeks for the right eye followed by the left eye two weeks later

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Pediatric Co-Management

- Post-Operative Results
 - Uncomplicated removal of cataract
 - Recalcitrant IOP - 45 mmHg at 1 week post-op
 - Patient placed on Combigan BID and goniotomy to be performed at time of left eye cataract surgery

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Pediatric Co-Management

- Patient referred for contact lens fitting
- Prior to referral baseline information allowed for the ordering of initial RGPs
- Refractive Data
 - +18.00 DS OU/10.00 WTW/ 43.50 X 45.00 approx. OU
- Lens Parameters
 - 7.76/9.0/+25.00 DS

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Pediatric Co-Management

- Initial Dispensing
 - Right eye exhibited 2.5D of residual myopia = perfect!
 - Left eye exhibited a slightly flat fit
 - Over-refraction of +0.50 DS
- Final Lenses Dispensed
 - OD: 7.76/9.0/+25.00
 - OS: 7.67/9.0/+26.50

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Pediatric Contact Lenses



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Pediatric Co-Management

- Billing
 - No co-management fee as post-operative visits were managed by Dr. Pierre
- Fitting of Aphakic Contact Lenses
 - 92311 – one eye
 - 92312 – bilateral
 - V2510 (2 units) – corneal RGPs

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Pediatric Co-Management



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Co-Management of Ocular Trauma

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Prevalence of Ocular Trauma

- Prevalence of ocular trauma has remained stable over past 20 years
- 500,000 people blind worldwide from ocular trauma
- 40% of monocular blindness related to trauma
- Most common traumatic event is related to fireworks

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Ocular Trauma

- Four major types of trauma
 - Primary injury – eye is damaged from the shockwave itself
 - Secondary injury – eye is damaged by fragments or shrapnel
 - Tertiary injury – eye is injured due to the individual contacting another object
 - Quaternary injury – eye is injured by indirect forces or burns

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PATIENT HISTORY

- 46 year old male s/p black powder explosion at home
- Diffuse embedded foreign bodies deep within the corneal stroma of each eye
- Had attempted corneal RGPs at another practice but found them uncomfortable
- Complains of excessive glare and halos while driving

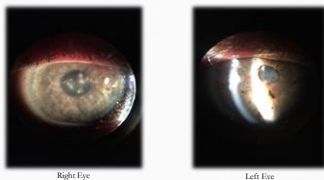
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REFRACTIVE INFORMATION

- Spec Rx:
 - OD: -1.25 -3.75 x 030 20/30 (with ghosting)
 - OS: -1.00 -0.50 x 100 20/20 (with ghosting)
- Keratometry:
 - OD: 43.50/43.37
 - OS: 43.50/44.00
- Pupil Size – Approx. 2.75-3.00 mm
- Corneal Diameter: Approx. 11.75 mm

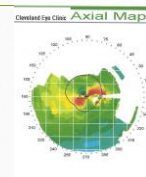
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SLIT LAMP IMAGES

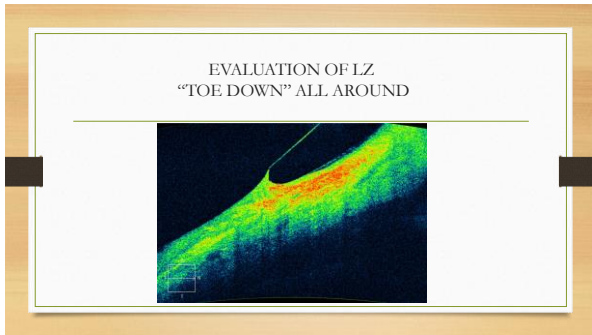


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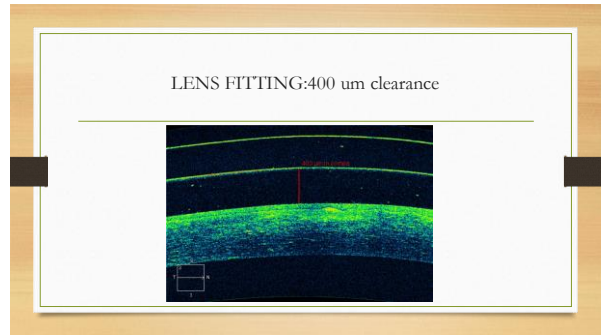
TOPOGRAPHY



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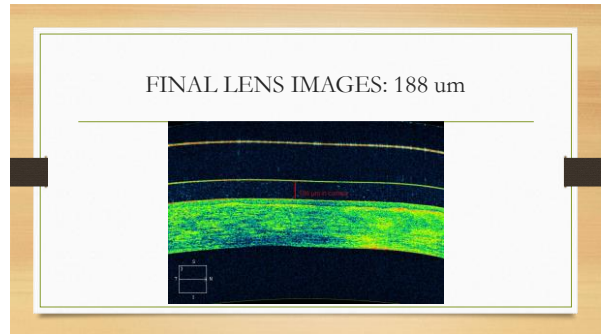
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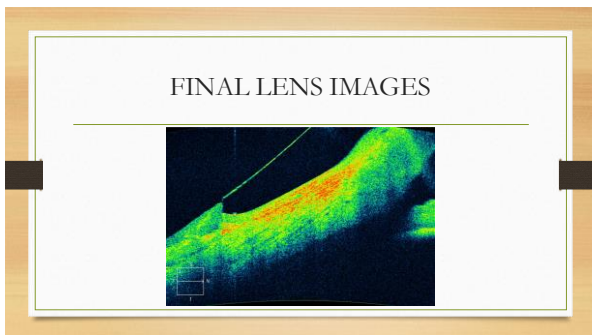
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- ### LENS PARAMETERS
- TROUBLESHOOTING FROM TRIAL LENS
 - Decrease peripheral curves by two steps in both meridians
Lower numbers = flatter approach to sclera
 - Decrease vault by 200 microns
 - Determined by observing suggested first trial lens
 - LENS ORDERED: 8.40/16.0/+1.75 -1.50 x 040
 - PCs: 34/40 (initial 36/42)
 - Vault: 3400 (initial 3600)
 - Material: Menicon-Z

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Scleral Lenses for Surgical Complications

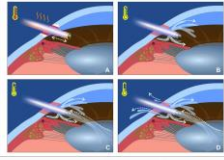
A clinical photograph showing a scleral lens fitted on an eye. The lens is a large, clear, dome-shaped structure that covers the entire cornea and extends onto the sclera. The eye is shown from a front view, with the lens clearly visible over the cornea.

- 68 year old female presents secondary to poor vision after cataract surgery
- Surgery initially appeared to be uncomplicated
- Vision steadily decreased over the first 24 hours following surgery

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4111111/>

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Endothelial Burns

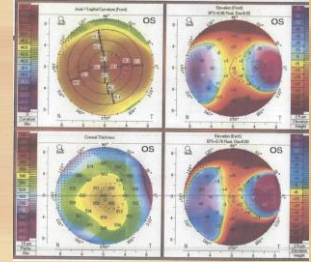


<https://www.aomms.com/eye-sound-burn-complications-jcrch/>

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Endothelial Burns

- The End Result
 - Uncorrected VA = 20/100
 - Spectacle BCVA = 20/70



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Scleral Lenses and Surgical Complications

- Specific Challenges
 - Compromised Endothelium
 - Small Apertures
 - Decreasing Dexterity
- Use a Corneal GP!
 - Well, we tried...
 - Patient was unable to tolerate several corneal designs

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Scleral Lenses and Surgical Complications

- Michaud Criteria
 - To ensure adequate oxygen supply (and reduce hypoxic stress) the following should be followed:
 - Lens thickness of no more than 250 microns
 - Clearance of the cornea by no more than 200 microns
 - Utilize a high-DK material

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Scleral Lenses and Surgical Complications

- Which lens design most closely holds to this philosophy?
- OneFit platform
 - 7.50/15.2/+4.00 DS 110 CCR Optimum Extra
- Results
 - Patient is able to obtain 20/25 vision during waking hours
 - Smaller overall diameter which improved ability to properly apply the lens
 - Oxygen delivery is maximized

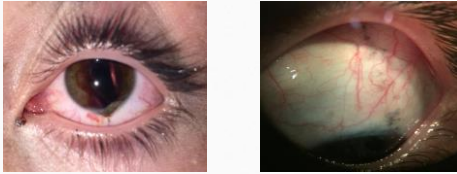
89

Co-Management of Ocular Trauma

- 12 year old female was attending a family barbecue
- Mother opened the door for a family member, and...
 - Skewered her daughter's left eye

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Co-Management of Ocular Trauma



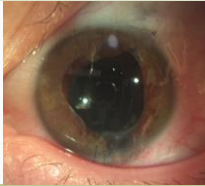
91

Co-Management of Ocular Trauma

- Late on a Saturday night the following was performed:
 - Repositioned iris
 - Removal of traumatic cataract and insertion of PCIOL.
 - Suturing of cornea and repair of ruptured globe

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Co-Management of Ocular Trauma



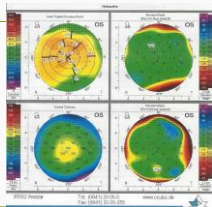
93

Co-Management of Ocular Trauma

- 1 Month Post-Op
 - MR -3.75 -3.25 x 175 (BCVA 20/70)
 - No evidence of endophthalmitis
 - Loose suture removed from inferior cornea
 - Referred for contact lens fitting to improve vision
 - Wears -6.00 DS daily CLs in right eye

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Co-Management of Ocular Trauma



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Refractive Concerns

- Elevation Differences
 - Differences of greater than 100 microns on Pentacam have difficulties with corneal RGPs
- Corneal Physiology
 - Certain endothelial loss due to trauma
 - Concerns about oxygen delivery to cornea through contact lens
- Corneal Sutures
 - Poor fitting lens may mechanically irritate corneal sutures

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Plan of Action

- Scleral Lens
 - In order to manage the differences in corneal elevation while properly managing physiologic concerns an attempt at fitting a scleral lens was made with the following goals:
 - 100-200 microns of clearance at the end of the day
 - Hyper-dK material
- Even a scleral lens was unable to meet the proper clearance criteria due to the differences in corneal elevation

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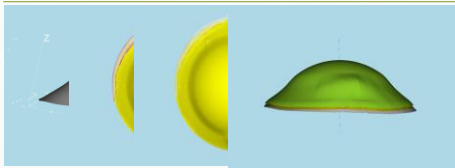
Final Solution

- EyePrint Pro



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3-D Scans



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Final Results

- Final EyePrint Parameters
 - 7.67/17.0/-2.50 DS
 - Optic Zone of 10.3 mm
 - Optimum Extreme material (dK/t 125)
 - 20/15 vision

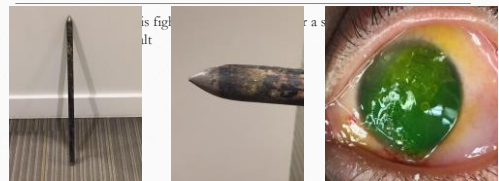
100

Co-Management of Ocular Trauma

- No co-management fee related to surgery
- Medical office visits billed every time
- EyePrint = \$\$

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More Trauma



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Damage Control

- Despite our best attempts the cornea became densely scarred
 - 20/80 BCVA
- Patient complained about chronic discomfort
- Utilized a soft lens to eliminate discomfort until sutures could be removed

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Why end on a down note?

- Without the “downs” we would not appreciate the successes
- Cherish your successes
- Celebrate with patients

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Take Home Message

- In order to effectively co-manage one must...
 - Be familiar with the procedures being performed
 - Adept at identifying complications
 - Confident in your abilities

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Thank You!



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