

Saturday April 25

- 7:45 am - 8:15 am** **Registration**
Exhibit Hall Open
Continental breakfast - sponsored by *St. Luke's Cataract and Laser Institute*
- 8:15 am - 9:55 am** **Advances in Cornea, Cataract, Refractive and Glaucoma Surgery (2, TQ, COPE: 103831-GO)**
Neel R. Desai, M.D. and Priti Panchal, O.D.
- 9:55 am - 10:40 am** **Break**
Exhibit Hall Open
- 10:40 am - 12:20 pm** **Amblyopia Management for Primary Care O.D.s (1, COPE: 103274-FV)**
Acquired Brain Injury: What the O.D. Needs to Know (1, COPE: 103273-FV)
Richard Sorkin, O.D.
- 12:20 pm - 1:10 pm** **Lunch** - sponsored by *Retina Vitreous Associates of Florida*
Exhibit Hall Open
- 1:10 pm - 1:20 pm** **Lighthouse of Pinellas Update**
- 1:20 pm - 1:30 pm** **FOA Update**
- 1:30 pm - 3:10 pm** **Pharmaceutical Update - Innovations and Insights for Eye Care (2, TQ, COPE: 103324-PH)**
Greg Caldwell, O.D.
- 3:10 pm - 3:30 pm** **Break**
- 3:30 pm - 5:10 pm** **Latest Advances in Eye Care Technology - Innovations in Early Detection and Management (2, TQ, COPE:103700-GO)**
Greg Caldwell, O.D.

Sunday April 26

- 7:30 am - 8:00 am** **Registration**
Continental breakfast - sponsored by *the POA*
- 8:00 am - 9:40 am** **Grand Rounds - Improving Eye Care and Outcomes for Patients (2, TQ, COPE: 103866-TD)**
Greg Caldwell, O.D.
- 9:40 am - 10:00 am** **Break**
- 10:00 am - 11:40 am** **Prevention of Medical Errors (2, COPE: 102834-EJ)**
Alice Sterling, O.D.
- 11:40 am - 12:00 pm** **Lunch** - sponsored by *LENZ Therapeutics*
- 12:00 pm - 1:40 pm** **Florida Jurisprudence (2, COPE: 101024-EJ)**
Alice Sterling, O.D.

Importance of Early Diagnosis in Keratoconus

As keratoconus progresses, it becomes more challenging to manage


Progressive keratoconus often results in:

- Loss of visual acuity
- Decreased tolerance to contact lens wear, caused by the ongoing changes in the cornea

The earlier progressive keratoconus is diagnosed, the sooner treatment can be provided that may slow the progression of the disease.¹

Important to diagnose and educate patients before visual function is lost

CXL is an early intervention intended to slow or halt the progression of keratoconus



1. Galles, J. D., OD, FAO, FCLSA. (2017, April). The Optometrist's Role in Keratoconus Management. Advanced Ocular Care.

33

Watch Out for Keratoconus! & Potential Signs & Symptoms

Typically onset occurs in teenage years or early twenties

- Increased Changes in Refraction or Increasing Cylinders
- Reduced Best Corrected Visual Acuity
- Frequent Headaches
- Halos and Ghosting
- Family History of Keratoconus
- Excessive Eye Rubbing
- Difficulty Seeing at Night
- Increased Light Sensitivity

LOOK OUT FOR KC!

- Look out** for warning signs in medical history
 - History of eye rubbing
 - Family & genetic predispositions
- Look out** for visual complaints
 - Blurred vision
 - Distortion of images
- Look out** for refractive anomalies
 - Distortion of mires on keratometry
 - Error messages on autorefractors
 - Unsatisfactory attempts at vision correction & progressive loss of UCVA & BCVA
 - Increasing astigmatism

If you believe a patient may have keratoconus, schedule a diagnostic exam or First An Exam at www.keratoconus.com to have them get a KC screening.



34

Cross-linking Procedure Summary

1. Remove epithelium
2. Soak cornea Photrexa® Viscous (riboflavin 5'-phosphate in 20% dextran ophthalmic solution) for 30 minutes
3. Check for flare
4. Once flare is observed, measure corneal thickness. If corneal thickness is less than 400 um, instill 2 drops of Photrexa Viscous (riboflavin 5'-phosphate in ophthalmic solution) until the corneal thickness increases to at least 400 um
5. Irradiate for 30 minutes. Continue applying Photrexa Viscous (riboflavin 5'-phosphate in 20% dextran ophthalmic solution) during irradiation.

* Refer to prescribing Information for entire FDA-approved procedure

35

28-year-old man

- Had LASIK 14 months ago
- His right eye is now very blurry
- He tried calling for an appointment the center is now closed.

37

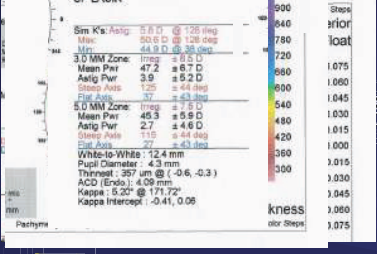
Va 20 / 40 cc / 20

Current Correction
R +0.50-7.00 x 040
L -0.25 sphere

EOMS: full, unrestricted PERRL (-)APD
CT: ortho D/N CF: full by FC OU

- SLE-trace fibrosis at flap edges, no stain
- SLE-few multi-directional striae OD>OS
- SLE-clean interface OU
- Fundus-unremarkable

38



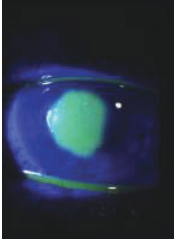
Diagnosis:

- Keratoconus 2+ LASIK
- RGP OD 20/20-2
- This lasted for about 3 months
- Multiple RGPs later due to progression of astigmatism to 8.5 D (BVA 20/50-2)
- Eventually PKP was done Jan 2006

39

Recurrent Corneal Erosion is a disease of the?

- A. Tear layer
- B. Anterior basement membrane
- C. Elastin and collagen in the stroma
- D. Never thought of it this way



OptometricEdu.com/Webinars

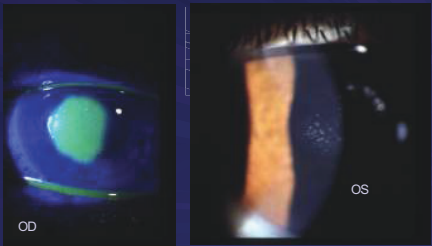
40

43-year-old man

- Called your office today
- Eye pain in the right eye since this morning
- OD 20/80 OS 20/20
- Externals: normal
- Review of Systems: unremarkable

41

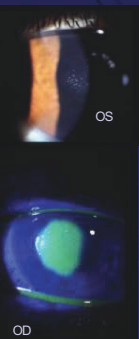
Slit Lamp Evaluation



42

43-year-old male further history reveals

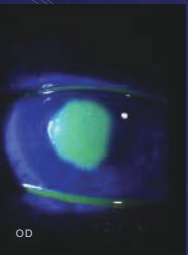
- Fourth time in past 24 months
- Uses Muro 128
 - * Gtt qid
 - * Ung qHS
- Diagnosis:
 - * Recurrent Corneal Erosion secondary to Epithelial Basement Membrane Dystrophy (EBMD)



43

Treatment

- Antibiotic, topical
- Pain management
 - * Depending on severity
 - Bandage contact lens
 - Oral ibuprofen (200 mg) (16)
 - Maximum 3200 mg daily
 - Oral acetaminophen (500 mg) (6)
 - Maximum 3000 mg daily
 - Oral narcotic (need DEA number) (Loraz 100PS)
 - They provide good pain relief
 - A degree of sedation
 - Tend to minimally impact the digestive system and kidney
 - It's not that they're dramatically more potent than OTC analgesic like acetaminophen, ibuprofen or naproxen
 - Topical NSAID



44

Review of Map-Dot-Fingerprint



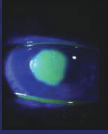
45

Treatment Options

(Once Abrasion Resolved, to Help Prevent Recurrence)

When is it time for surgical procedure?

- Medically
 - Hypertonic
 - Ops
 - Age
 - Bandage contact lens
 - Nocturnal
 - Doxycycline/Minocycline
 - Amniotic membrane (PROKERA®)
- Surgical/Procedures
 - Anterior stromal micropuncture
 - Debridement
 - Chemically
 - Mechanically
 - Bowen blade/Diamond burr
 - Excimer phototherapeutic keratectomy (PTK)




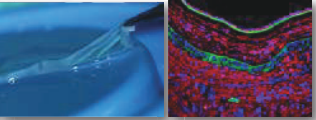
46

The Basics of Amniotic Membrane

47

The Amniotic Membrane


- The amniotic membrane is the innermost lining of the placenta (amnion)
- Amniotic membrane shares the same cell origin as the fetus
 - Stem cell behavior
- Structural similarity to all human tissue

48

The CRYOTEK™ Method

- Patented and proprietary cryopreservation
- Ensures key active components of the Extracellular Matrix (ECM) are retained
- The **only** method that retains both:
 - The integrity of the tissue structure
 - The key active (ECM) components
- Safe and effective
 - Supported by over 300 peer-reviewed articles
 - Over 100,000 implanted
- Bio-Tissue Cryopreserved Amniotic Membrane is the **ONLY** AM granted wound healing indication by the FDA.



49

Technology Highlights

Impressive regenerative platform that possesses natural growth factors and optimal scaffolding properties within a complex extracellular matrix that are:

- Anti-inflammatory
- Anti-scarring
- Anti-angiogenic

Therapeutic actions:


- Promotes Stem Cell Expansion
- Suppresses pain
- Promotes cellular migration
- Expedites recovery



50

PROKERA®: BIOLOGIC CORNEAL BANDAGE

- PROKERA® utilizes the proprietary CryoTek™ cryopreservation process that maintains the active extracellular matrix of the amniotic membrane which uniquely allows for regenerative healing.
- PROKERA® is the only FDA-cleared therapeutic device that both reduces inflammation and promotes scar-less healing
- PROKERA® can be used for a wide number of ocular surface diseases with severity ranging from mild, moderate, to severe



51

PROKERA®: Biologic Corneal Bandage
An Active Amniotic Membrane

Prokera Slim	Prokera	Prokera Plus
Mild to Moderate	Moderate to Severe	Severe
<ul style="list-style-type: none"> • (Microbial, HSV) • Recurrent Corneal Erosions • Corneal Abrasions / Wounds 	<ul style="list-style-type: none"> • Neurotrophic PED • Severe Infectious Keratitis • Post DSEK for Bullous Keratopathy • Corneal Wounds 	<ul style="list-style-type: none"> • Chemical Burns • Stevens Johnson Syndrome • Severe Corneal Ulcers • Corneal Wounds

52

Excimer Phototherapeutic Keratectomy (PTK)

- Corneal Opacities
 - * Scarring
 - * Granular dystrophy
- Surface Irregularity
 - * Salzmann nodules
- Surface Breakdown
 - * Epithelial basement membrane dystrophy

53

PTK Procedure

- Removal of epithelium
- Manual debridement
- Polish with excimer

54

PRK

55

PTK

56

Post op Regimen

- Vigamox and Pred-Forte q2°
 - * Until wound is closed
- Bandage contact lens (BCL)
- Vitamin C, 1000 mg/day x 1 month
- NP-artificial tears
- Sunglasses in any UV

57