#### On behalf of Vision Expo, we sincerely thank you for being with us this year.

#### Vision Expo Has Gone Green!

We have eliminated all paper session evaluation forms. Please be sure to complete your electronic session evaluations online when you login to request your CE Letter for each course you attended! Your feedback is important to us as our Education Planning Committee considers content and speakers for future meetings to provide you with the best



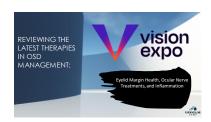
#### **Experience EXPO With Us!**

- Main Stage Exhibit Hall Booth F11084
   Our Main Stage sessions feature free, promotional content for all attendees
- Vision Series Thursday 9/18, Friday 9/19 and Saturday 9/20
  Grab a bite to eat and continue learning over Breakfast 8:30-9:30mm or Lunch 12:00-1:00pml\* Listen to industry leaders as they address the latest clinical innovations in a relaxed and collaborative environment.

 Exhibit Hall Hours Conferee Cafe - Exhibit Hall - Booth P19087

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# Faculty

1

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# Learning Objectives

# Note About Obtaining Credit

- We are pleased to inform you that COPE credits will be provided by Vision Expo for your participation in this event.
   8e sure to keep track of your attendance to ensure you receive your credits.
- You must have remained at the in-person event until the end of the program.
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- Event will be recorded and published as an enduring CE activity at IFGLearningCenter.com

Thank you for joining us!









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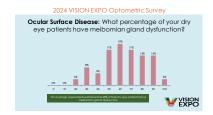




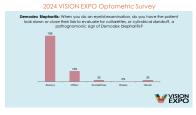
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MGD: In-office Management

In-office Management Option

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Prilated E.; and A. Comparison of Tow Care and is pilete System in Relativisty Co. Fig.

Disease Symptom. Internied with Machinese Cloud Chance Cloud Spileteried.

Montally on all Flower Wild dation destinations constitution that the temperature of the approximation of the solid section and official destinations are made used as the solid section of the solid and the solid section of the solid sections of the solid

MGD: Non-pharmaceutical Management

At-home Management Options

- Use warm compresses
- Commercially available microwavable heat masks may be more effective
- Eating green, leafy vegetables and avoiding high fat foods can also be helpful.
- Available over the counter as a spray, foam or individually wrapped towelettes, after containing typochlorous acid.

Circuland Ciric Slighartin, Sepa Przysianiandolnia orginadri Plannari 1900 Jülghartin, Updand Dacamber 31, 200 Jerossand September 8, 2001.

MGD: Non-pharmaceutical Management

- In-office Management Options

  Systems that warm the lids so unh
- Intense pulsed light therapy involves th application of bright red light pulses to the evelids.
- Microblepharoexfoliation cleans the evelid margins



31 32 33

Commonly Used Treatments for Demodex Blepharitis

#### At-Home

ree oil

Lid wipes Topical ivermectin cream Cleanses containing

Cleansers containing
 hypochlorous acid
 Lid scrubs

# Lotilaner

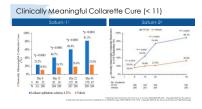
 Lipophilic agent in an aqueous drop that acts specifically via mite GABA-gated chloride channels to target, paralyze, and kill Demodex mites

IDEMAY (prescribing information). Turnes Phermanuschook, Inc., 2023.
Tunation CE and Parent Victors. 2021 107 (42).
Van E et al. Cornes, 2023-0-56. 401.
Van E et al. Prescribed et &FVCOSDE, April 27, 27, 2621. Nave Polsen, Lis.



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Case Study; 62-year-old male

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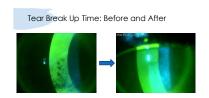
Protein success about fluidings
recorded citizent of pt 150 OU for 42 days
related to return in 2 months for follow up
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Patient Education and Follow Up

Images at 2-month Follow Up

43 44 45











- 44-year-old Executive
   History of compliant, daily disposable contact lens wear
   Having some blarry vision, thinks it's time to update lenses
   Casual use of lubricating drops as needed
   "No changes in medications"

Case Study Findings







#### Oral Supplementation

55

- Omega- 3 Fatty Acids
   DREAM study
   Improvement in overall scores, not statistically significant versus placeba (alive all)
- Gamma Linolenic Acid
  Decreased OSDI and Increased corneal smoothness versus placebo
  Electrolyte + Vitamin Deink Mix
  Hyper-hydration drink mix with anti-inflammatory ingredients

Homain M, et al. OREAM Enely Research Group. The Dry Eye Researce and Management (OREAM) contains mady. A renderined information of adult-based of experiments of the state of the containing of

#### Preservatives in Ophthalmic Medication

- Most artificial teas that come in a multi-dose battle contain preserve decrease the growth of bacteria once the bottle has been opened Benzalkonium choirde (BAK) is the most common preservative May be harmful to the ocular surface

56

- May be hamful to the coular surface
- Decrease galable call density
- Delays wound healing
- Damages corned narves
- Disrupts corned and resign-in-trial cells
- Disrupts corned and conjunctival cells
- National Service of Mark Include: Polyquadensium-1 (PQ, Polyquad), Oxidating preservative (BOC, Sodium perborate), Ionic buffered preservative (BOE), and Sodium periodosite (Endisequad Despeta; 1997.

#### Preservative-Free Filter Multi-Dose Bottle

Newly developed multi-dose bottles deliver drops through a filter which prevents microbial contamination and removes the preservative.
 Contents can now be used for up to 3 months after opening

57

#### Pharmaceutical Options

58

#### Cyclosporine Ophthalmic Solution 0.1%

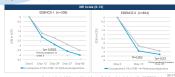
- A preservative-free solution that enhances the penetration of cyclospoine into the comea, directly targeting inflammation
   Righ-concentration cyclosporine serves as both an anti-inflammatory and immunomodulator.
- and Immunomodulator

  O Unique semifluorinated alliame (SFA) vehicle spreads evenly accould suffice and integrates into bear lipid fayer

  Due to the amphiphilic nature of SFAs, perfluorobuly/pertane can effect dissolventy

59

Phase III ESSENCE-1 and ESSENCE-2 Primary Endpoint



60

#### Cyclosporine Ophthalmic Solution 0.1%

#### PFBP Vehicle Impact on Cyclosporine Treatment

- Perfluoributy/pentane (PFBP) improves (pid layer grading, which may play a role in reducing flear evaporation
   \_TOS SEMB Management and herapy Report<sup>2</sup>
   -FBB improves tear fluid light dayer thickness within minutes after institlation and may reduce the are vaporation in DED patients with a compromised lear fluid light layer?

(Jugared P, Galdes), at al. 88 per examination and alarese a comparison toward for influence of semilarational all exceptions active film.

2) shows, Coding (and 1900 SWE Williamstermed Roys follow) to SED Expentitions on Englishings 2001. 18.

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#### Cyclosporine Ophthalmic Solution 0.09%

- A calcineuin inhibitorimmunosuppressant indicated to increase tear production in patients with DED
- in patients with DED

  Nanomicality formulation (NCELL) encapsulates hydrophobic cyclosporine molecules for improved solubility and penetration through the tear film into ocular fissue:

  Addresses cause of tear deficiency, not just symptoms

  Supports corned and conjunctival epithelial integrity

  May improve visual quality in symptomatic dy eye patients

Eithean Street (1994 North 1994 N

Cyclosporine ophthalmic solution 0.09%

 In clinical trials, most patients found cyclosporine ophthalmic solution 0.09% to be comfortable right from the start
 The first time they fried cyclosporine ophthalmic solution 0.09%, nine of 10 patients prine ophthalmic solution 0.09%, nine of 10 patients ter 3 minutes



- 0 124% MMe
  - >95%





Landmark Study Proves Intelligent Heat Offers Superior Improvements Over Cyclosporine 0.05% > Intelligent heat with manual expression is effective as a primary treatment option for MGD ➤ Patients gain additional long-tasting benefits by switching from cyclosporine 0.05% to intelligent heat and manual expression  $\succ$  Compliance is not a factor with intelligent heat and manual expression

65 66 64



- Nutraceutical supplement
   GLA based supplement
   RTC 1 month for dry eye workup

# 1 Month Later

- Patient reports decrease in symptoms
   Tolerating oral supplement well
- Exam findings

OD 313 OS 306

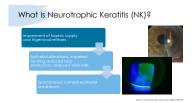
Management

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70 72 71

#### Common Triggers of NK1

- · Chemical Burns
- Corneal/Ocular Surgery
   Chronic Contact Lens Use
   Prolonged Use of Topical Medications
- Infactional Anomalies
   Conditions like acoustic neuroma, meningioma, and aneurysms
   Compression of the trigeminal nerve or ganglion affecting corneal sensitivity
- Diabetes

# Case Study: Initial Presentation

- By your old femindenteries to Dy Eye Clinic
   Fundancies with the eyes, "tost fed everything" and all this unabable vision & discomfort
   (I) (Inhibition, businey, vision
   Detries watering, burning, redices
   SPIED, 4/3
   SECYA 200 00. 2000 05
   Nervices and the experiment of t

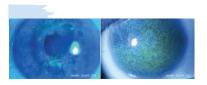
#### Case: Patient History

- History of HTN and depression
- History of cataract surgery
   Medication for HTN & depression

75

- Medication for HTN & depression
  No altergles
  Fits unremarkable
  Exam:
  PERR:
  PERR:
  LONG Manach & Full, {|pain, {|displapia
  VF-HTC}
  Glidmann applanation: 17 mm Mg OD, 17 mm HG OS

73 74



What Would You Do?

Corneal Sensitivity

NK Facts

- symploms

  Degenerative comeal condition due to reduced neural innervalion

  Risk Factors: infection, injury, or inflammation -> trauma, turnors, inflammatory testions, herpefic infections, chronic comed exposure, surject, damage to frigerinian freelye

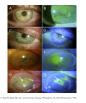
  Decare progression after unnofficed by the patient

77 78 76

#### NK Stages

- Mackie Classification System Stages I III

  Stage 1=general epithelial atterations (A & B)
  Stage 2=pensistent epithelial defects (C & D)
  Stage 3=comed ulceration (E & F)
  Perforation (G & H)



### NK Treatment Options

- Amniofic Membranes
   Topical Insulin (1UL/ml)
   Cenergemin-bkbj (0.02%)
   Matrix Therapy Agent
   Surgical Management

# Amniotic Membrane Types





# Cenegermin-bkbj

- \* FDA approved in 2018
   Shucturally identifical to human nerve growth factor protein made in ocular tissue.
   Recombinant nerve growth factor (protein 3) this protein activates receptors that allow for differentiation and maintenance of neurons that support the innervation of the comea.



### Cenegermin-bkbj

- Dosing: 6Xday (2hr Intervals) for 8 weeks
   Apply 1° If using ung/gel after
   Walt 15 minutes for CL insertion
   Can do another round if needed

## Case Study

82 83

84

# Case Study Summary

- Before:
   SPEED 4/28
   BCVA 20/40 OD, 20/80 OS
   AFTER
- Speed: 0/28 BCVA 20/25 OD & OS
- \*\*\*<u>Discuss with Patients</u>\*\*\*
  Sometimes they can feel "worse" if treatment works

# Key Learning Points

- Assessing corneal sensitivity is critical for maintaining ocular surface viability.
- New formulations of immunomodulating anti-inflammatory drops have proven to improve efficacy and adherence to dry eye treatment.
- Demodex and MGD share similar symptoms and when faced with both treating demodex can help manage MGD
- Preservatives do not improve the ocular surface. When given an option preservative free.

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