

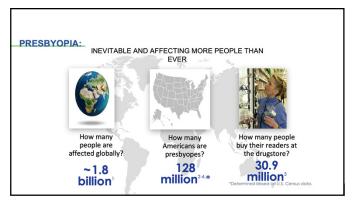
Lessons Learned from **Favorite Contact Lens Cases** Milton Hom, OD, FAAO Shalu Pal, OD, FAAO David Kading, OD, FAAO Thomas Quinn, OD, MS, FAAO

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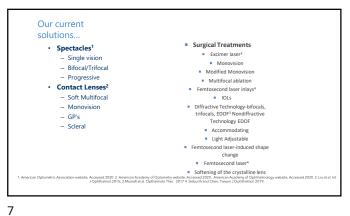
disclosures allergan/abbvie bausch health silk-tech sydnexis silk-tech surface pharma sydnexis nevakar, inc. visus therapeutics aperta biosciences atareal, inc. azura ophthalmics aldeyra therapeutics allysta novartis sun pharma kala pharma tarsus pharma hovione scientia

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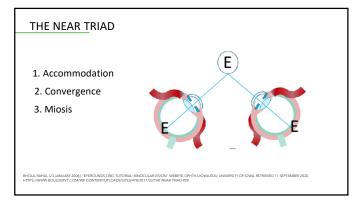


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Q: We live in a 3D world. We only have a 2D retina. How can we perceive different distances? A: Accommodation

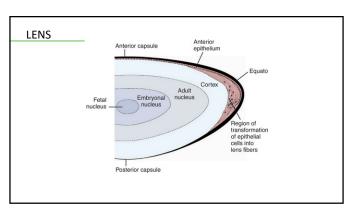
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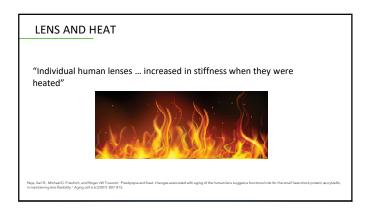
LENS "Younger than age 30, the nucleus was found to be softer than the cortex." "Cortical and nuclear stiffness values were similar...in the 30s." "Over the age of 50, the lens nucleus was typically an order of magnitude more rigid."

9 10



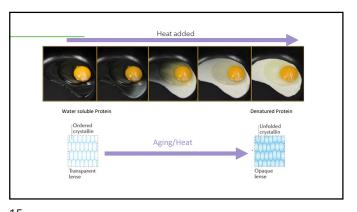


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"Our ... hypothesis is that heat-induced denaturation ... takes place ... during our lifetime."

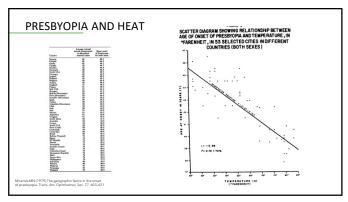
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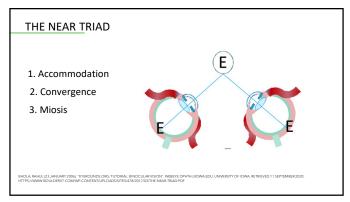


### "If lens stiffening...result of lifetime ocular exposure to heat, and...the underlying cause for presbyopia...expect to see a relationship between the ambient temperature and the age of onset of presbyopia."

Hyry, Karl R, Michael G. Friedrich, and Roger JW Truscott. "Presbyopia and heat: changes associated with aging of the human lens suggest a functional role for the small heat shock protein, e-crystallin, in project indeed one floatistists." Aging only 6.4 (2001), 907, 915.

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17 18

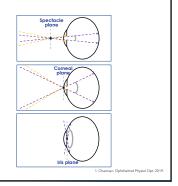
### MAKING THE MOST OF MOA

### Miotic is a viable option to treat presbyopia

- Increase of depth field/depth of focus
- Sensitive to affect pupil size/near vision but not affecting IOP
  - Pupil not fixed pupil returns to natural size
  - At the IRIS plane vs a handheld pinhole/corneal inlay

PINHOLE PLACEMENT
AND PERIPHERAL VISION

- A pinhole can restrict peripheral vision.
- Placing the pinhole at the iris plane extends depth of focus without restricting peripheral vision.<sup>1</sup>



19

20

### Case

54 year old female presbyope
OD +1.00 DS 20/20
OS PL 20/20
+2.50 Add
Does not want glasses
Attempted multifocal CL and does not want to try again

### Case

Treatment options

Distance CL with reading glasses CL Multifocals Monovision Modified monovision Pharmaceutical with CL

21

22

### Case

Pharmaceutical with CL

OD +1.00 single vision CL Avaira Vitality Pilocarpine prior to application of CL, both eyes

### Case

Pharmaceutical with CL

Distance Photopic OD 20/20 OS 20/20

Distance Mesopic OD 20/20 OS 20/20

Near Photopic OD 20/20 OS 20/20

Near Mesopic OD 20/25 OS 20/25

### Case

Pharmaceutical with CL

AEs Headache Burning and stinging **Duration of action** 

### Case

Allergan/AbbVie Visus Therapeutics **OSRX** Pharmaceuticals Presbyopia Therapies Eyenovia Novartis UNR844 Orasis Pharmaceuticals

25 26

### **Global Contact Lens Forum** Part II – Lessons Learned from our Faviourte CL Cases

Dr. Shalu Pal, OD, FAAO, FSLS, FBCLA

Toronto – Private Practice Global Myopia Symposium – Planning Committee Founder Canadian Contact Lens Academy Past Chair AOA - Contact Lens and Cornea



### Financial Disclosures - Dr. Shalu Pal

I have received honorarium from the following companies for my role as a lecturer, consultant, writer or ad board member in the last year.

 Alcon Allergan
 Bausch & Lomb Baver

Blanchard

Boston Sight

CandorVision

 CooperVision Eyeris

 FYI Doctors
 GPLI
 J&J Vision
 Labtician Novartis

Paragon Santen SLES Shire

SightGlass Sjogren's Society FoundationSTAPLE Program

• Sun Pha • Tarsus Sun Pharma

VISION EXPO

27 28

### Case 1 - Gas Permeable Lens Patient

**Background:**JM is A keratoconic patient suffering with poor vision, discomfort from previous fits, skepticism and is concerned about the cost.

### Patient Goals:

He wants a solution and a guarantee before he pays again for new lenses

- Approach:

  (1) Listen to the patient and let him explain all he went through

  (2) Go over the topographies and explain the maps

  (3) Explain what I am going to different than his current uncomfortable fit

  (4) Explain the options, materials, fitting process, time, goals and options if goals are not achieved

  (5) Explain costs, exit points and put control in the patients hands

  (6) Also explain new options scleral lenses, hybrids and EyePrint







### Case 1 - Gas Permeable Lens Patient





### Discussion:

- GPs how they will help, what is different from his current fit, what I can do differently
- Time line of the fit, costs and No pressure at all

- Outcomes:
   Staff helped to reassure him and answered all of his questions
   Started the fit after he processed all information.

### Lessons Learned:

Cleasing for our consultation time and staff time
Patience and kindness to calm our patient's fear & involving them in the fitting process
The importance of our staff

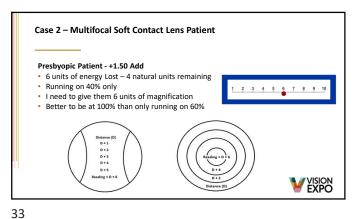


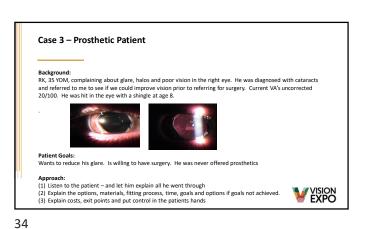
VISION EXPO

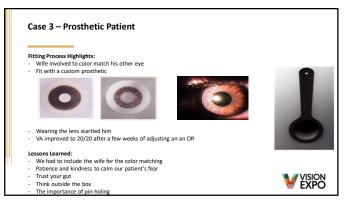


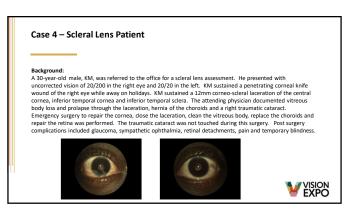
Case 2 - Multifocal Soft Contact Lens Patient Lessons Learned: Lessons Learned: Age is a sensitive topic Developed a system to explain presbyopia to never have to face these struggles Start talking about presbyopia and accommodative changes at a early age ❖2.50 D of change over the course of 30 years ♦0.25 steps = 10 steps of change ♦A reservoir of energy that we lose over time distance Patients can track and follow their own process ◆Better understanding VISION EXPO Early start and entry into MFs and Progressives

32

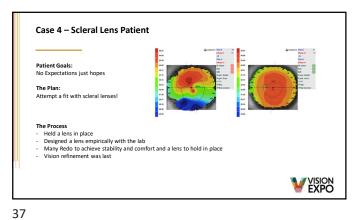


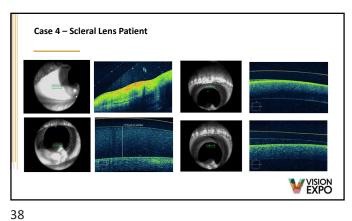


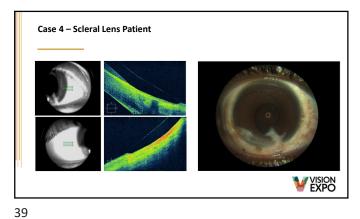


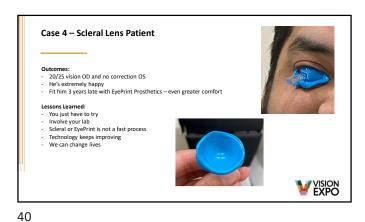


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David Kading, OD, FAAO, FCLSA has no financial or proprietary interest in any of the products that are mentioned

Co-Owner Optometric Insights with Dr. Mile Brujic

### Crash Test Dummy, Consulting, Research, Speaking: Alcon, Allergan, Bausch + Lomb, BioTissue, CooperVision, Oculus, Euclid, EyeVance, EyeEco, Facebook, Johnson and Johnson, Oculaphire,

Facebook, Johnson and Johnson, Oculaphire, Olympic Ophthalmics, OptoVue, Novartis, RPS, Shire, Sight Sciences, Sun Pharma, Takeda, TearScience, Valeant Pharmaceuticals, Valley Contax, VSP, Weave, Zeiss, and ZeaVision.





### 6YOM

- RX:
- -0.25-0.25x178
- 0.25-0.50X003
- Myopic Parents
- Brother 8 years old (-2.00)
- Axial Length 23.8 OD, 23.9 OS

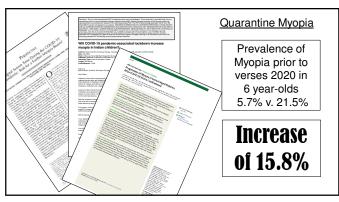
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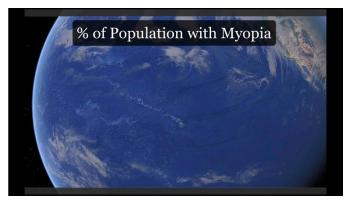
Our greatest challenge around Myopia is not our treatments, but the refusal to call it a disease



"The prevalence of myopia in Americans has soared by 66% since the early 1970s"

45

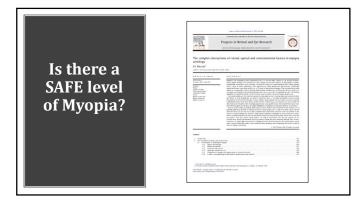




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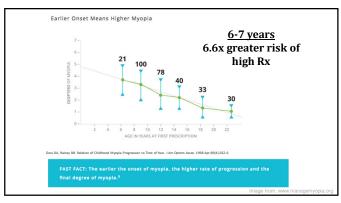


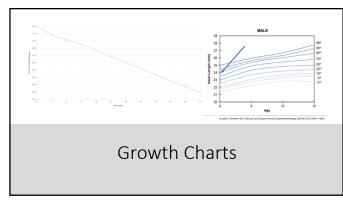




	Increased risk			
	Glaucoma	Cataract (PSCC)	Retinal detachment	Myopic Maculopathy
-1.00 to -3.00	2.3	2.1	3.1	2.2
-3.00 to -5.00	3.3	3.1	9.0	9.7
-5.00 to -7.00	3.3	5.5	21.5	40.6
>-7.00			44.2	126.8
dds ratios describe how strongly one condition is associated with another.				

51 52

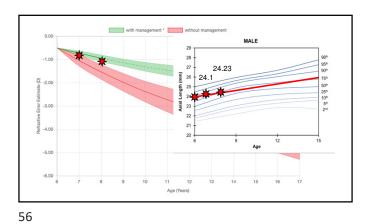




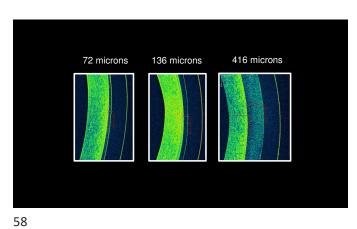
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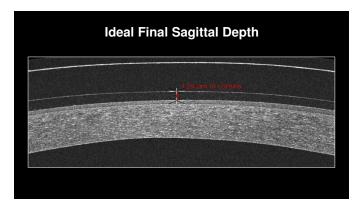
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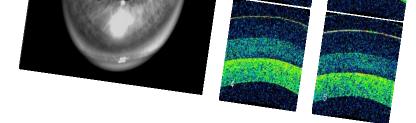


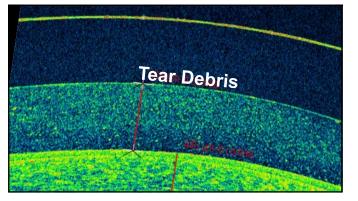


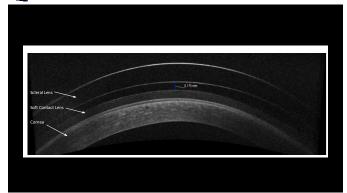


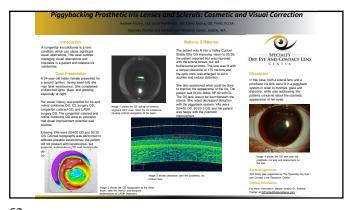


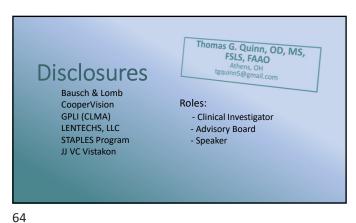




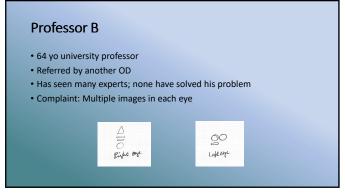






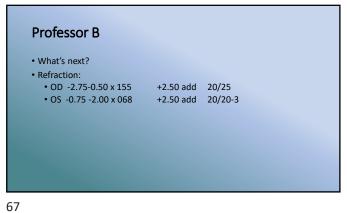


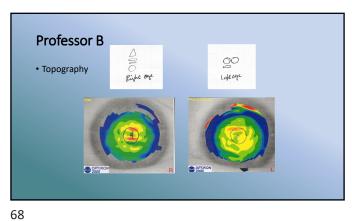
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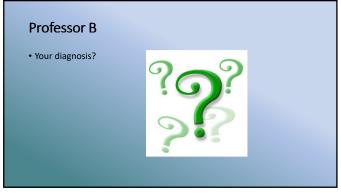
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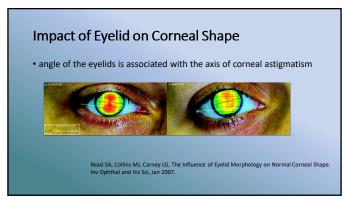


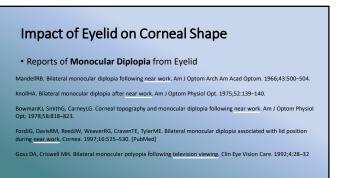


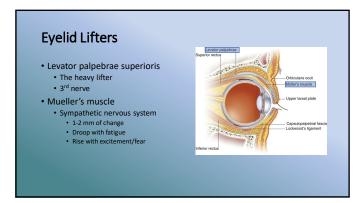


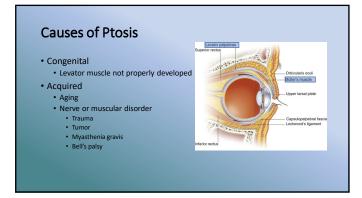


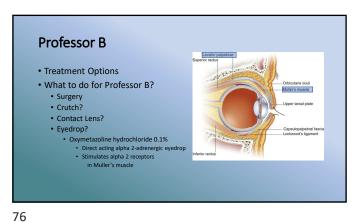




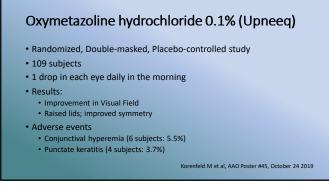


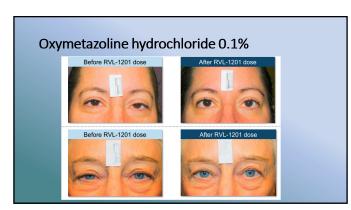


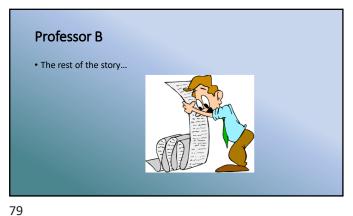




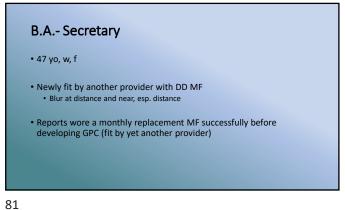
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**B.A.-Secretary** • Spectacle Rx • +4.00 DS +1.75 add • +3.50 DS +1.75 add • CL Specs (DD MF center near asphere) • +4.50 Low • +4.50 High • The Problem? B.M. dominance testing • Sensory: OS • Sighting: OS

82



Science says... • Pointer J, J of Optom, (2012) 5, 52-55 • Method: 72 Emmetropes
 Sighting method: hole in the card
 Sensory method: +1.50 blur test • Results: Right eye dominance
 Sighting method: 71%
 Sansory method: 54%
 Laterality was in agreement only 50% of the time!

84 83

# Science says... Sighting Dominance Little to no relationship with success with monovision 1,2 Sensory Dominance Evidence suggests may be a better measure 3,4 Shor C, Landsman L, Erickson P, Ocular dominance and the interocular suppression of blur in monovision, Am J Optom Physiol Opt. 1987 Oct; 64(10):723-30. Erickson P, McGill EC. Role of visual acuity, stereoacuity, and ocular dominance in monovision patient success. Optom Vis Sci. 1992 Oct;69(10):761-4. Robboy MW, Cox IG, Erickson P, Effects of sighting and sensory dominance on monovision hight and low contrast visual acuity, CLAO J. 1990 Oct-Dec; 16(4):299-301 Collins MJ, Goode A, Interocular blur suppression and monovision, Acta Ophthalmol (Copenh) 1994; 72(3):376-80.

M.M.- Physician

- 62 yo, w, m
- D/C GP MF due to dryness assoc. w/ RA
- Current Tx: Restasis, Omega 3, eyelid cleanser
- Interested in DD MF

85 86

## • Keratometry: OD: 43.25/43.75 @ 098 • Spectacle Rx: OD: -3.75 -0.25 x 170 • 2.50 add • OD dominant (sighting;sensory?) • DD Options: • 1th attempt: MF OU → blur at near • Push plus non-dominant OS: blur persists • 2th attempt: MF OD, SV toric OS set for near → blur at intermediate • 3th attempt: MF OD, SV toric OS set for intermediate → blur at near • 4th attempt: MF OD biased near, SV toric OS for distance • BINGOI

### **Blur Tolerance Test**

- Line up patient behind phoropter with best corrected Rx
- Both eyes open through the entire procedure
- Instruct patient to report when they first detect blur
- Introduce plus in +0.25 D steps until the patient reports blur
- Reset phoropter to best corrected Rx
- Repeat adding plus to the other eye until patient reports blur
- Calculate difference between findings for right and left eyes

Quinn TG, The Blur Tolerance Test, Contact Lens Spectrum, 34(3), March 2019

87 88

### 

Spectacle Rx

+4.00 DS +1.75 add

+3.50 DS +1.75 add

CL Specs (DD MF center near asphere)

+4.50 Low

+4.50 High

The Problem?

B.M. dominance testing

Sighting: OS

Sensory: OS

Plus to blur:

OD +1.50, OS +0.50

89 90

