

LASIK Ectasia – Rescued with large  
Diameter 9.5-10mm DALK  
Case Reports

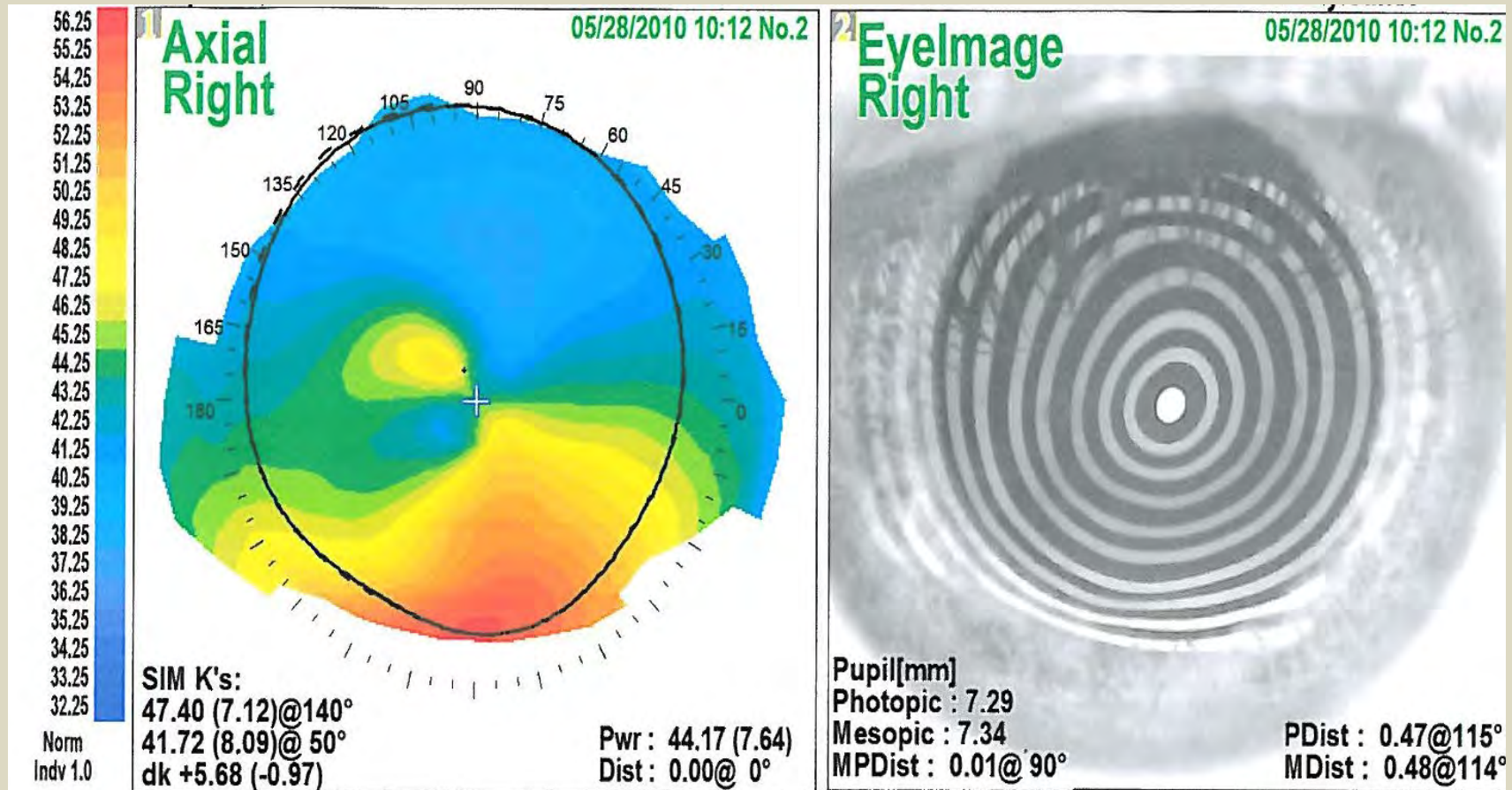
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Columbus, OH  
[www.icanseeclearly.com](http://www.icanseeclearly.com)

# LASIK Ectasia – Rescued with large Diameter 9.5-10mm DALK Case Reports

- 7 patients
- 11 eyes

# Case #1:

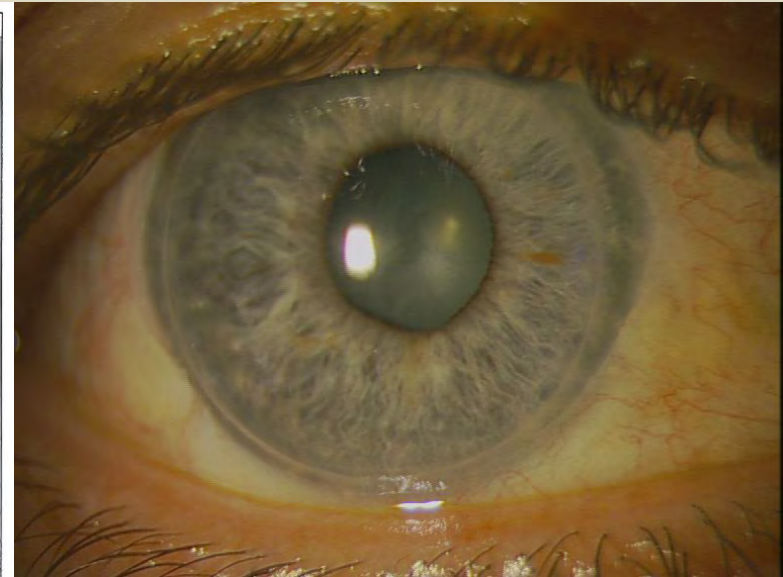
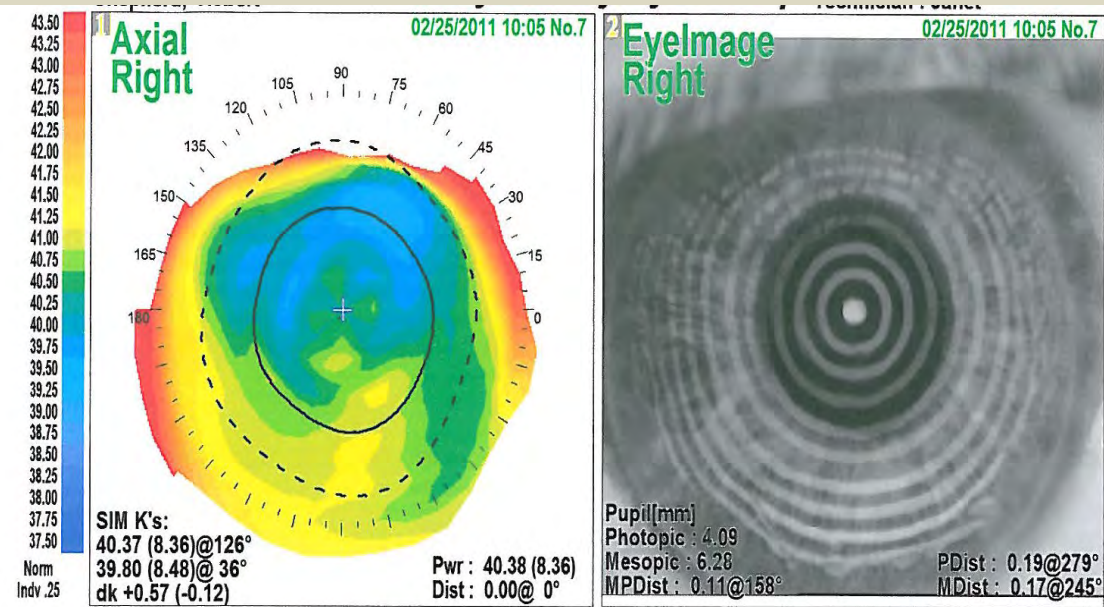
LASIK Ectasia: 48yo male, CL intol  
-7.0 + 7.0 x 20/50



# Case #1:

OD: DALK 9.5mm dia: 8 mos post-op  
(2 mos after suture removed)

+1.25 + 1.5 x 175 x 20/20-



CASE #2:

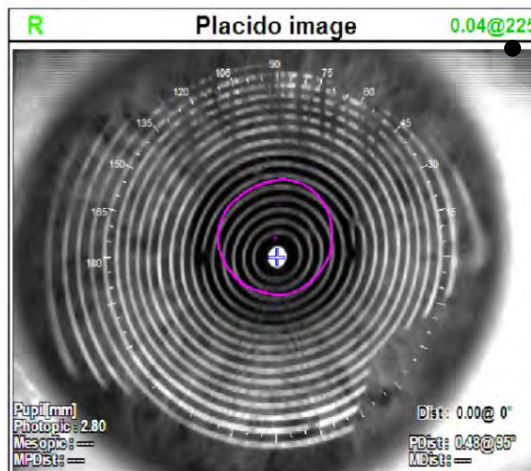
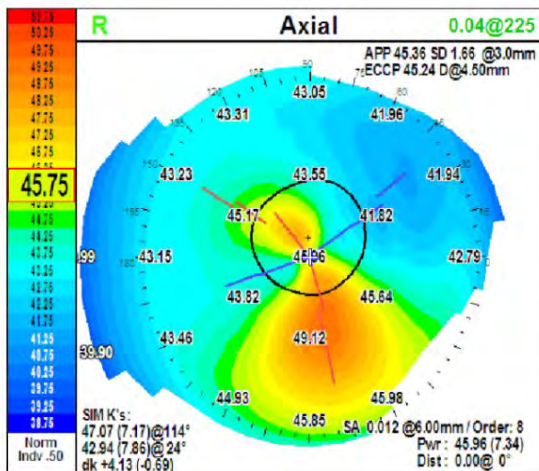
2/2016: 33 yo male referred 3 mos after cross linking OS (right eye not x-linked)

"I still cannot see out of my left eye and vision very poor right eye – especially at night"

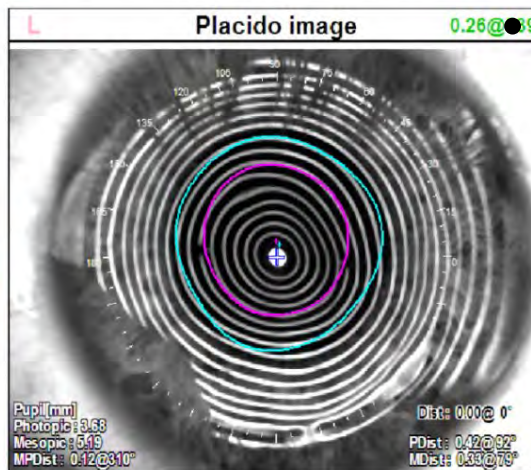
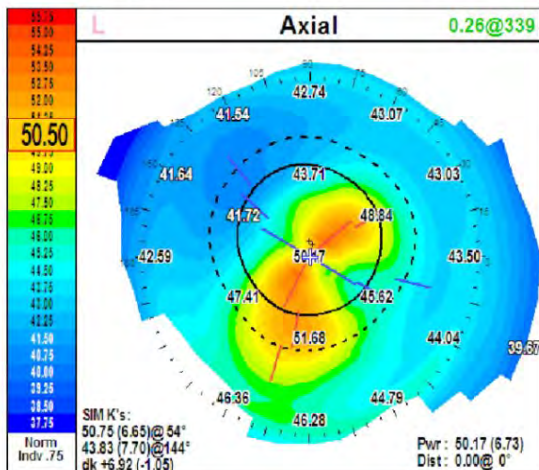
**12/2015 OS: Corneal Cross-linking** (performed by original LASIK surgeon)

2008 LASIK OU for low myopia (-3.0D OU) "vision OK for for initial 4 yrs" then developed ectasia OU

L	02/17/2016 16:08	Comment	L	Diagnosis	L
R	02/17/2016 16:08		R		R



**OD: -2.50+2.0x165 20/40**



**OS: 20/150**

# Case #2:

1/2022 Topo below: wearing soft contact lenses OU

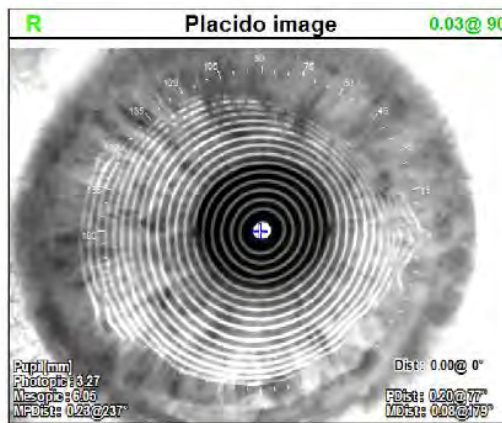
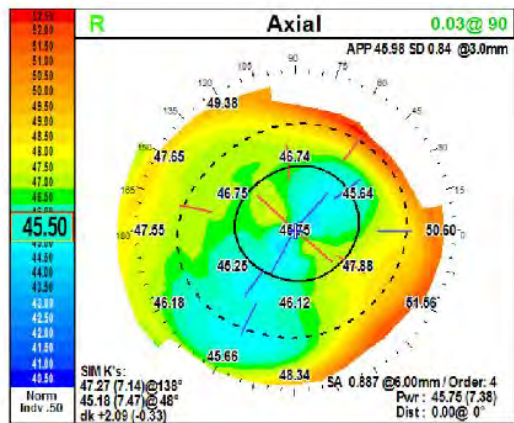
12/2019 suture removed

6/2019 OS: DALK 9.5mm 24 bite running suture

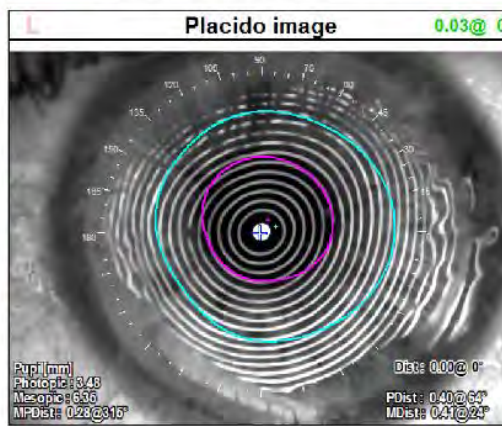
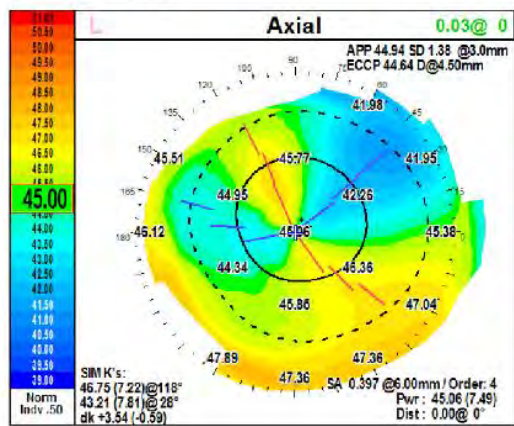
12/2016 suture removed

6/2016 OD DALK 9.5mm 24 bite running suture

L	01/31/2022 08:51	Comment	L	Diagnosis	L
R	01/31/2022 08:51		R		



-7.0+2.75x141 **20/20**



-7.0+4.5x129 **20/20**

# Case #2:

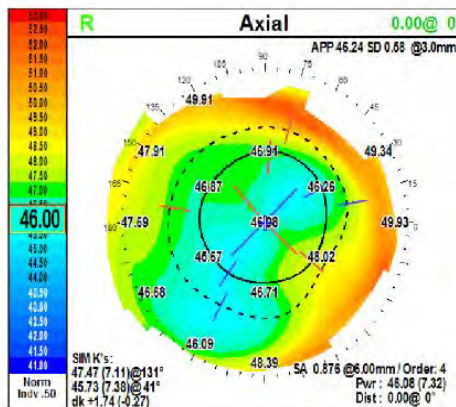
11/2022 Topo below EXTREMELY HAPPY!

2/2022 Staar Toric ICL OD: 13.2 -8.0/2.5 OS: 13.2 -7.5/4.0

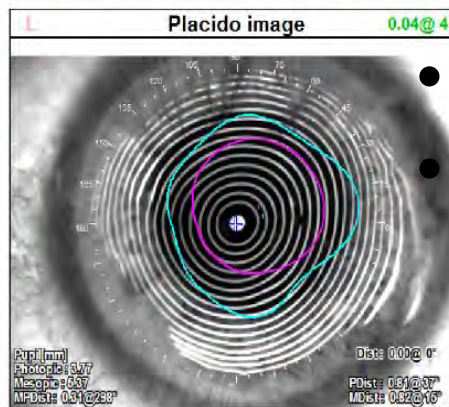
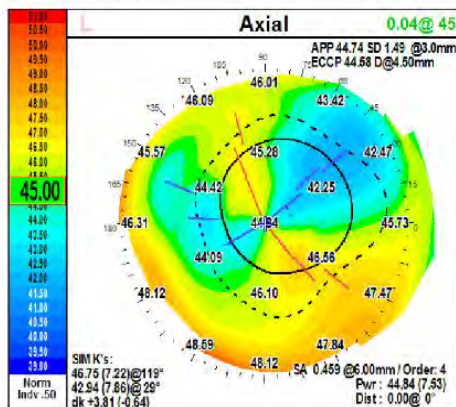
6/2019 OS: DALK 9.5mm

6/2016 OD DALK 9.5mm

Date	L	11/09/2022 14:09	Comment	L		Diagnosis	L
	R	11/09/2022 14:09		R			R



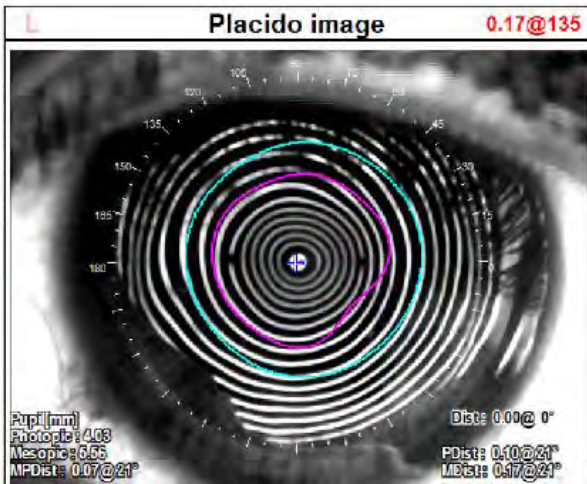
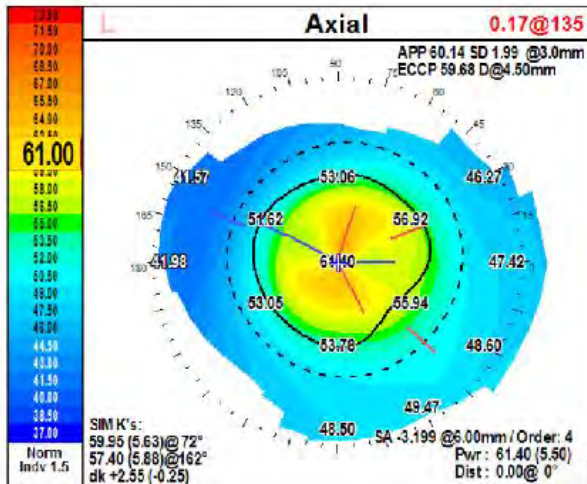
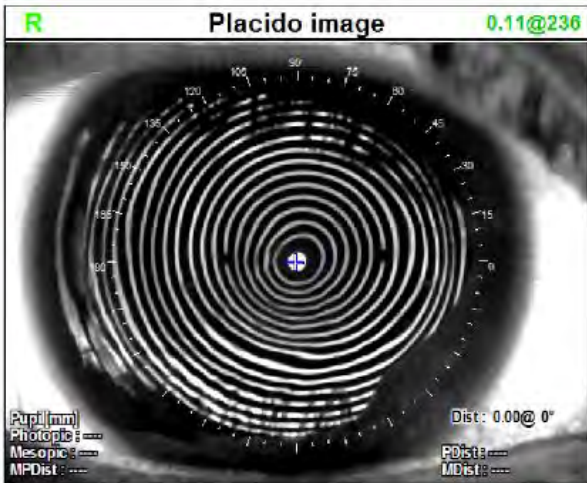
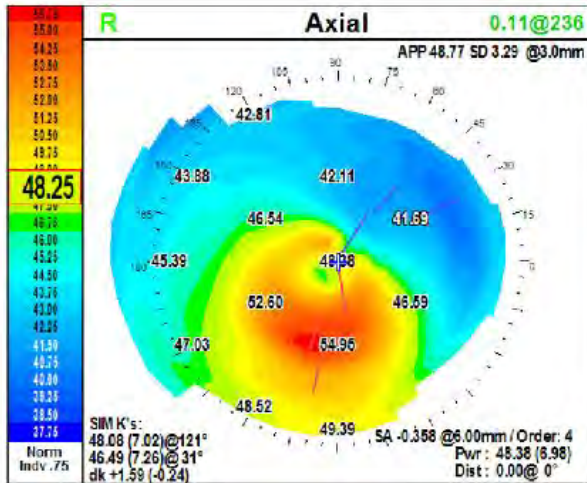
OD: **Uncorrected VA 20/20**  
-0.25+0.5x136



OS: **Uncorrected VA 20/25**  
-1.0+1.0x100 20/20-

CASE #3: 54 yo female referred with Lasik Ectasia OU “very poor night vision”  
 2013 Vitamin A trial  
**2/2011 Cornea Cross Linking OS** OSU “didn’t help”  
 1998 LASIK OU mild myopia “ vision OK for for initial 10 yrs” then developed ectasia OU

L	02/22/2021 15:52	Comment	L	Diagnosis	L
R	02/22/2021 15:52		R		R





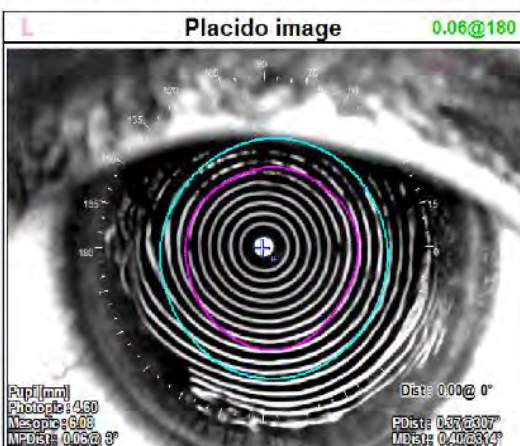
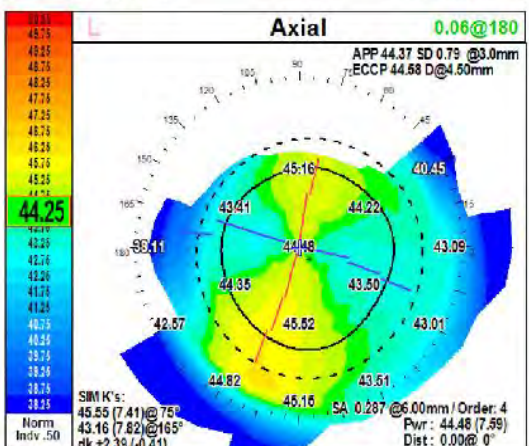
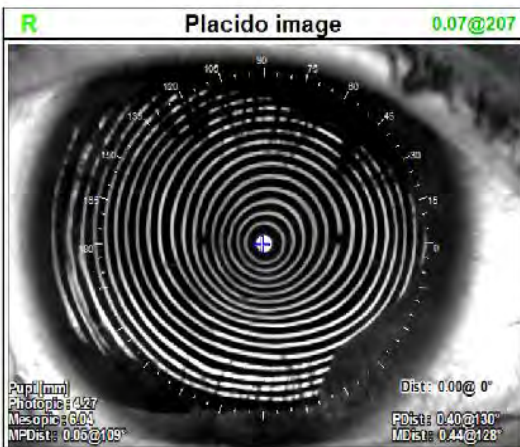
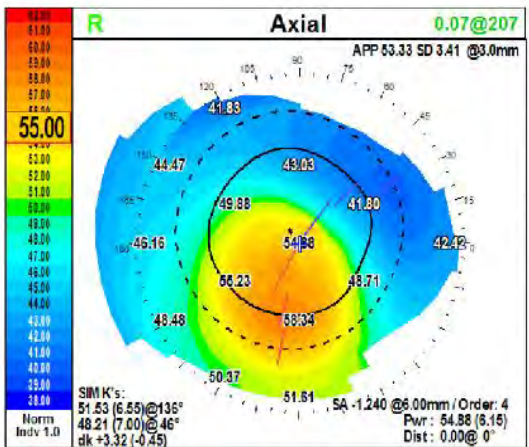
Case #3 LEFT EYE 56 yo female Lasik Ectasia OU

3/6/2023 topo below. VERY HAPPY w dramatic visual improvement OS !

2/2023 removed running suture OS

3/2021 OS DALK 10mm donor/10mm bed

L	03/06/2023 16:34				
R	03/06/2023 16:34	Comment		Diagnosis	



- Thrilled!!
- UNCVA 20/40-
- -1.5+2.0x80 20/20

# Case #3 56 yo female Lasik Ectasia OU

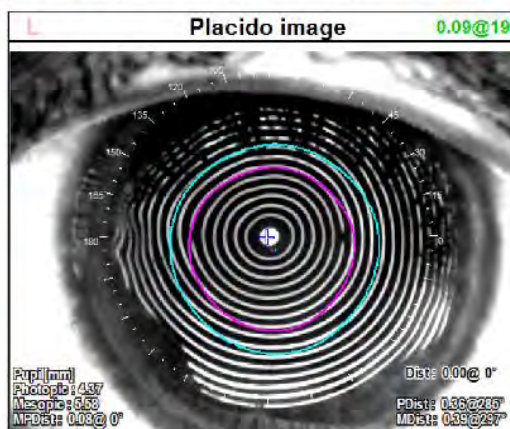
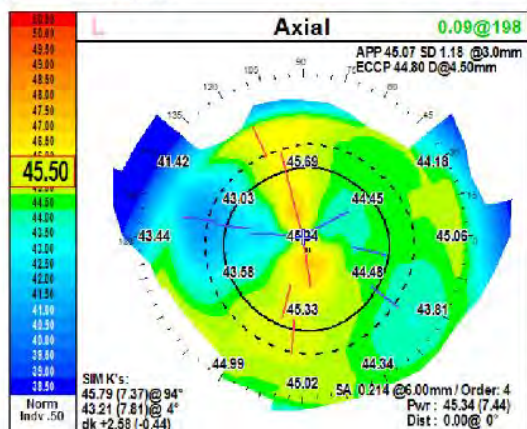
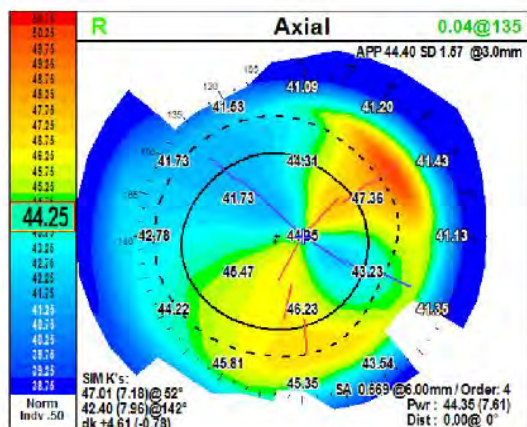
2/1/2024 OD removed running suture

4/2023 OD DALK 10.0mm donor/10.0mm bed

2/2023 OS removed running suture

3/2021 OS DALK 10mm donor/10mm bed

L	02/01/2024 08:48	Comment	L		Diagnosis	L	
R	02/01/2024 08:48		R			R	

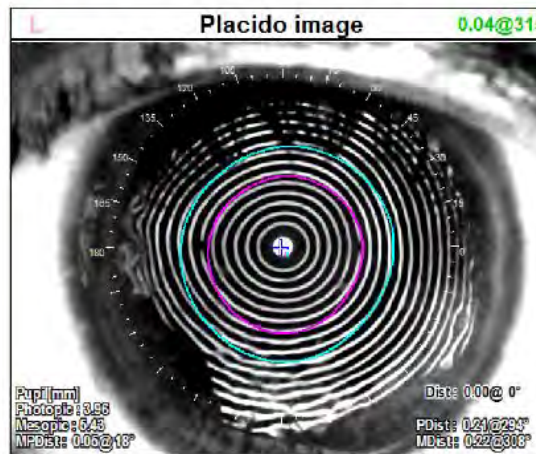
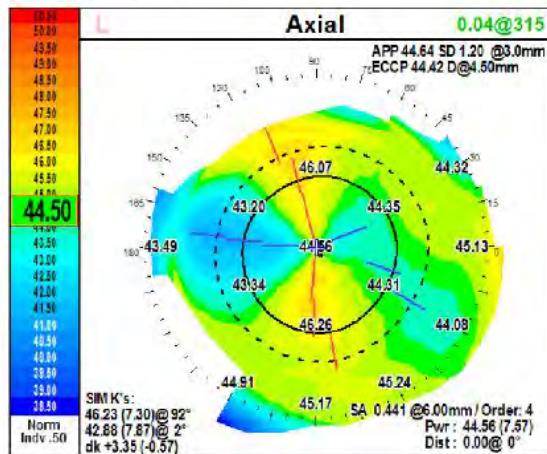
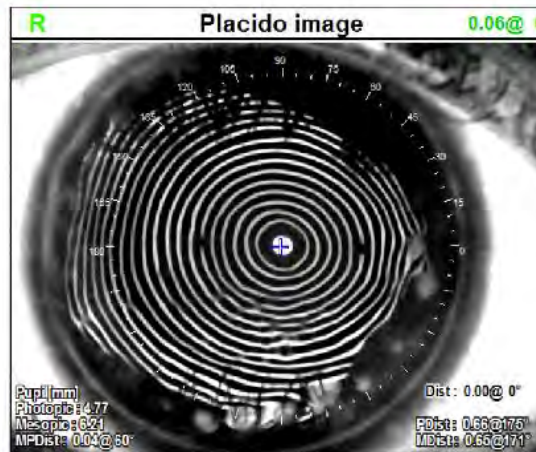
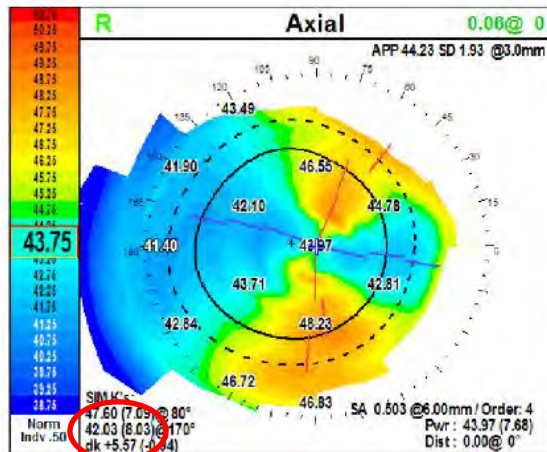


- OD
- -0.25+1.75x67 20/40

- OS
- -0.75+2.25x92 20/40

Case #3 56 yo female Lasik Ectasia OU  
 2/1/2024 OD removed running suture  
 4/2023 OD DALK 10.0mm donor/10.0mm bed  
 2/2023 OS removed running suture  
 3/2021 OS DALK 10mm donor/10mm bed

L	04/22/2024 12:32	Comment	L	Diagnosis	L
R	04/22/2024 12:32		R		R



OD  
 -0.25+1.75x67 20/40  
 4/22/24 topo cyl = **5.57D**

OS  
 -0.75+2.25x92 20/40

Case #3 57 yo female Lasik Ectasia OU

11/2024 OD paired AK scleral tunnel x 65/270

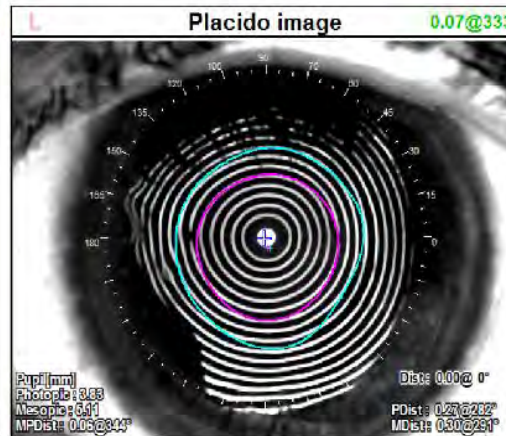
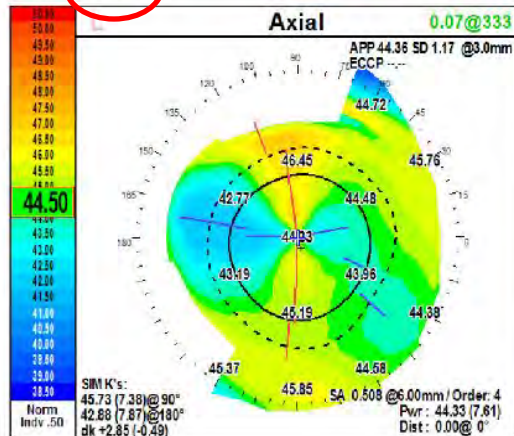
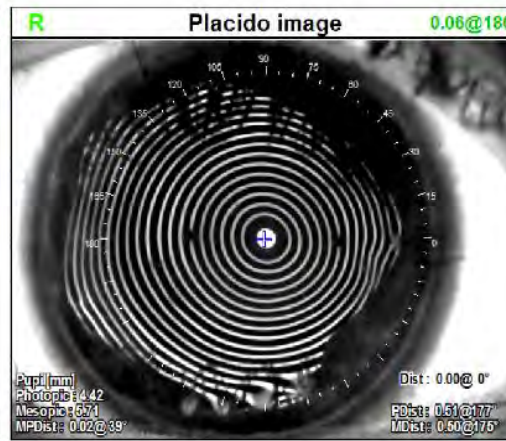
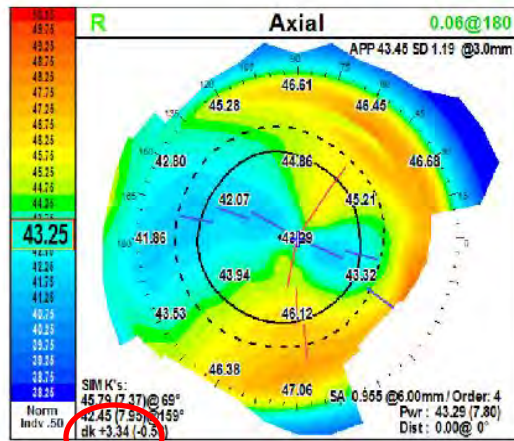
2/2024 OD removed running suture

4/2023 OD DALK 10.0mm donor/10.0mm bed

2/2023 OS removed running suture

3/2021 OS DALK 10mm donor/10mm bed

L	02/10/2025 12:28	Comment	L	Diagnosis	L
R	02/10/2025 12:28		R		R



2/10/2025

Astig reduced to 3.34D

Plano+2.25x70 20/30

Developing cataracts

Planned Light Adjustable Lens (LAL)

UNCVA 20/60-

-0.75+2.50x105 20/40

Planned Light Adjustable Lens (LAL)

CASE #3: **Summary and Discussion** (now 57 yo) female referred with Lasik Ectasia OU “very poor night vision”

4/2023 OD DALK 10.0mm donor/10.0mm (Richard Erdey, MD)

3/2021 OS DALK 10mm donor/10mm bed (Richard Erdey, MD)

2013 Vitamin A trial OSU

2/2011 Cornea Cross Linking OS OSU “didn’t help”

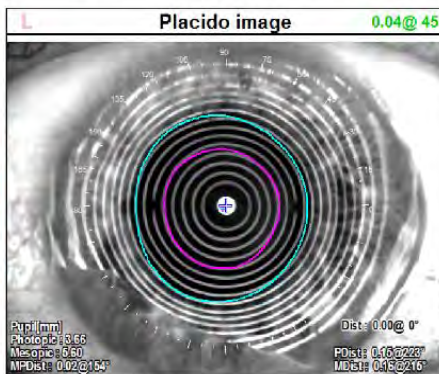
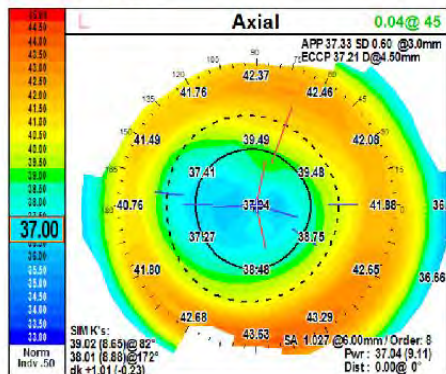
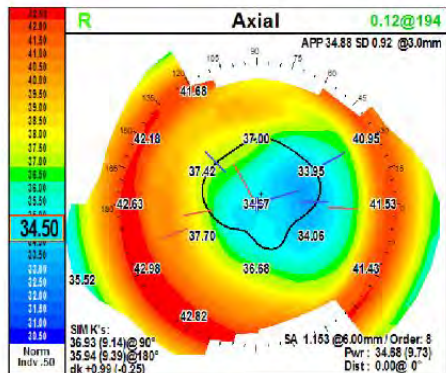
1998 LASIK OU for myopia “vision OK for for initial 10 yrs” then developed ectasia OU

- Richard Erdey, MD performed a large Dia (10.0mm) DALK for severe keratoconus in both eyes. She had Cornea Cross Linking (CXL) in left eye in 2011 at a university center for LASIK ectasia. She could not tolerate Rigid Gas permeable Contact Lenses (RGP CL's) and had been wearing hybrid CL's in both eyes since. Her original goal was to eliminate corrective lenses – her original goal of having LASIK.
- While there have been scattered reports of fortunate keratoconus patients who experience gradual topographic/visual improvement over many years, (but still require corrective lenses) we have found no such potential benefit to applying CXL to patients with visually significant corneal warpage from LASIK/PRK or RK ectasia. The ONLY reason to considering CXL in this population is when subtle changes in corneal topography are detected EARLY, BEFORE visual degradation occurs!
- CXL does NOT restore warped corneas. CXL moderate to severe warped corneas (keratoconus) is advocated by some in hopes of preventing progression so that mandatory life-long RGP or scleral CL's can be continued. The value proposition of CXL warped corneas FAILS to adequately address this growing problem due to excessive cumulative cost, lack of access and life-long cumulative risk of chronic specialty contact lens wear.
- CXL is increasingly very expensive and is a very poor population-based solution for warped corneas.
- CXL is NOT refractive surgery!
- We strongly advocate Large Diameter DALK followed by EVO ICL (younger patients) or cataract surgery w LAL (older patients). DALK corneal grafts last a lifetime and topography of a large diameter DALK is STABLE. This combination meets every definition of an ideal REFRACTIVE SURGICAL PROCEDURE! The results are “LASIK-LIKE”!
- If this pt had instead elected to have DALK performed in 2011, at a minimum, she would have enjoyed Contact Lens independence since, saved the annual cost of replacement contact lenses over the last decade and avoid the lifetime cumulative risk of CL's. When she has cataract surgery with a Light Adjustable intraocular lens in each eye, she is expected to achieve her original goal of independence of corrective lenses.

# Case #4

8/2021: 64 yr old female referred c/o poor vision / severe night glare both eyes last 22yrs “ever since PRK” both eyes. Told she developed “central corneal haze” both eyes and “nothing they could do”  
 1999 OD undercorrection added paired corneal intacs  
 1999 PRK high myopia (-13.0 both eyes)

L	09/10/2021 09:07	Comment	L		Diagnosis	L	
R	09/10/2021 09:07		R			R	



## Right: (Dominant)

- uncorrected VA 20/30
- -0.25+1.0x96 20/30
- Glare 20/100
- Very flat central K's (35D)
- central corneal haze
- Paired intacs

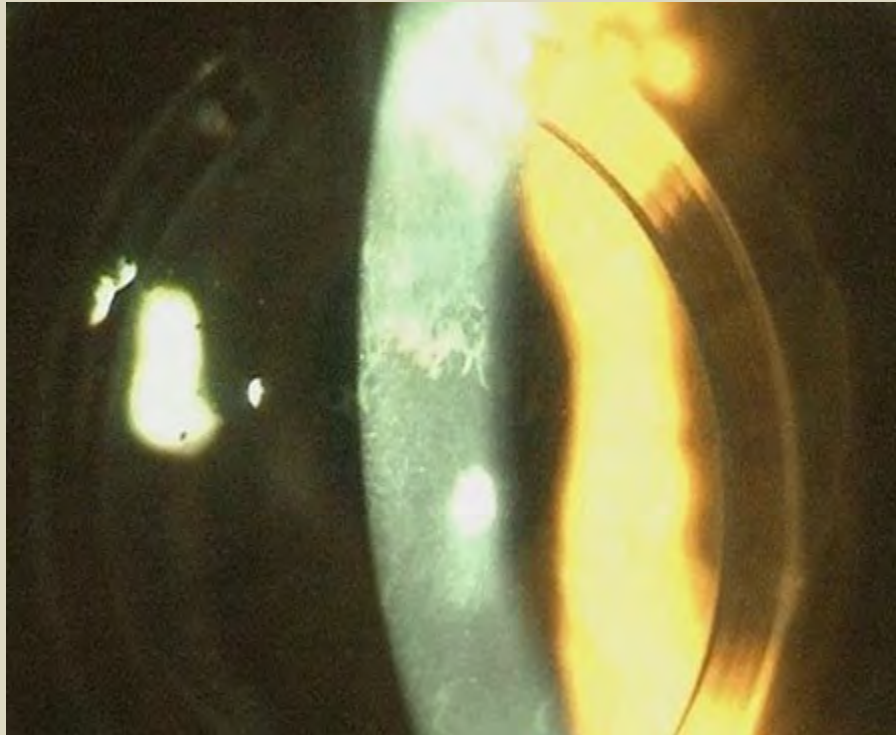
## LEFT

- Uncorrected VA 20/150
- -3.0+1.75x86 20/40
- Glare 20/400
- Very flat central K's (37D)
- Central corneal haze

## Case #4

8/2021: 64 yr old female referred c/o poor vision / severe night glare both eyes last 22yrs “ever since PRK”. Told she developed “central corneal haze” both eyes and “nothing they could do”  
1999 OD undercorrection added paired corneal intacs  
1999 PRK high myopia (-13.0 both eyes)

### **Right eye: Central corneal haze and intacs**



## Case #4

8/2021: 64 yr old female referred c/o poor vision / severe night glare both eyes last 22yrs “ever since PRK”. Told she developed “central corneal haze” both eyes and “nothing they could do”

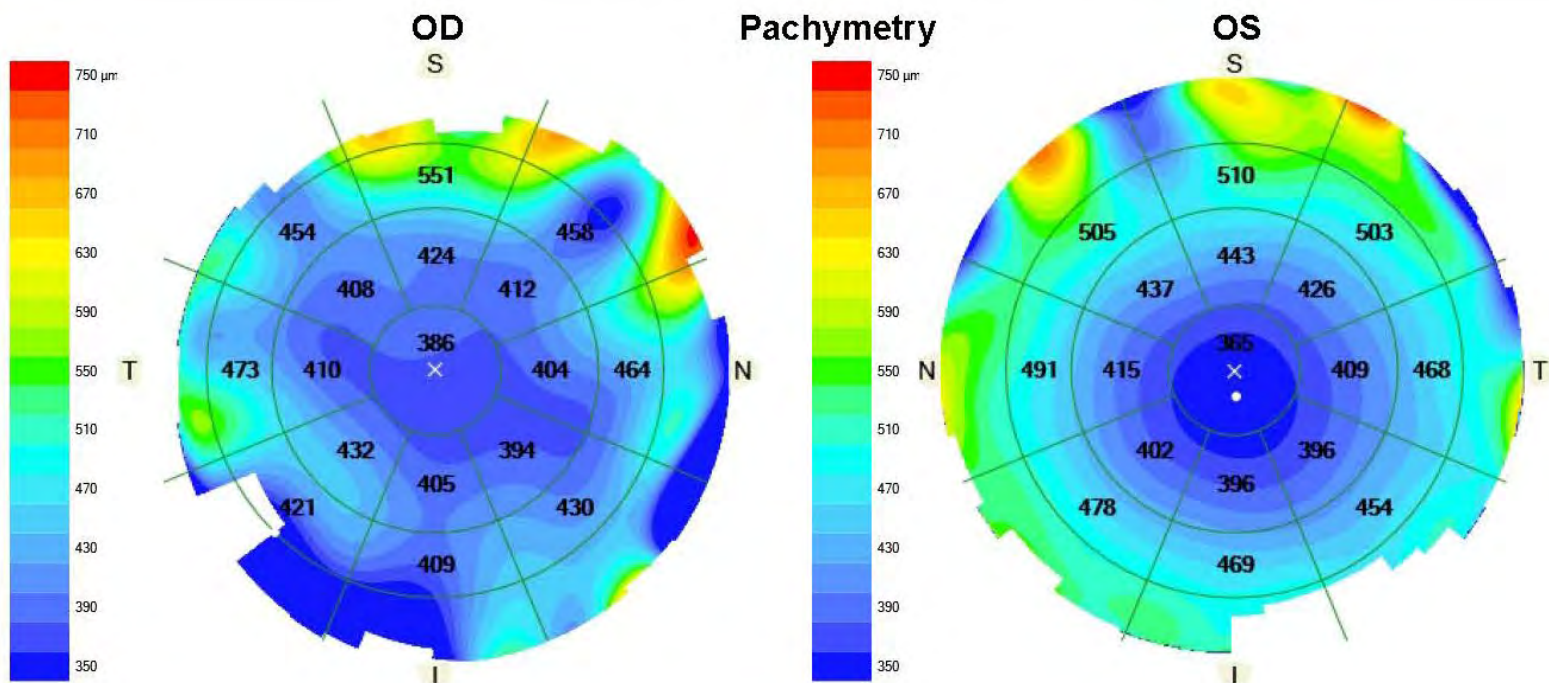
1999 OD undercorrection added paired corneal intacs

1999 PRK high myopia (-13.0 both eyes)

**OD: 375u (central cornea thickness after PRK subtracted 150u)**

**OS 359u (PRK subtracted 150u)**

### Pachymetry Analysis : Pachymetry





# Case #4

3/1/2023 topo below

2/1/2023 OS removed running corneal suture

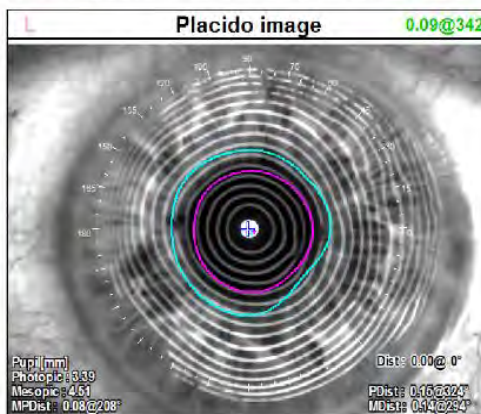
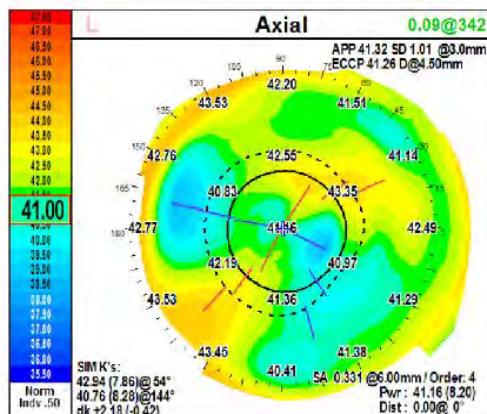
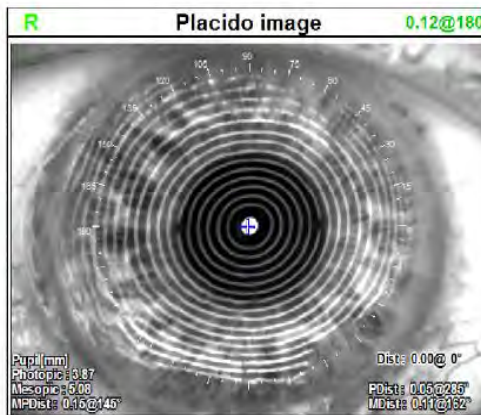
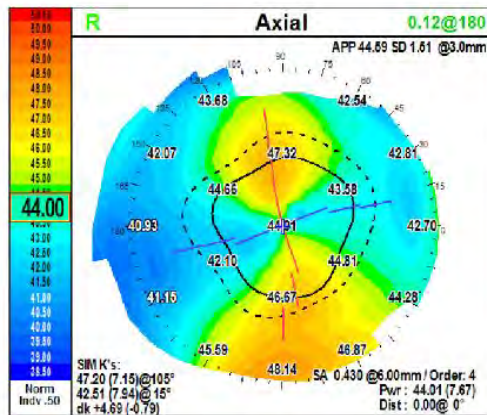
10/2022 OD -14.75+5.5x115 Cat Ext w toric B&L MX60T5.0 6.5D x 106

8/2022 OD removed running corneal suture

6/21/2022 OS DALK 9.5mm bed/9.75mm donor laterality matched nasal marked

11/2/2021 OD Removed intacs/DALK 9.5mm bed/9.75mm donor laterality matched

L	03/01/2023 08:44	Comment	L	Diagnosis	L
R	03/01/2023 08:44		R		R



## Right eye

- Uncorrected VA 20/30
- -1.50+1.50 x 135 20/25
- Pt is THRILLED with improvement in visual quality and elimination of glare after 20+ yrs!!!

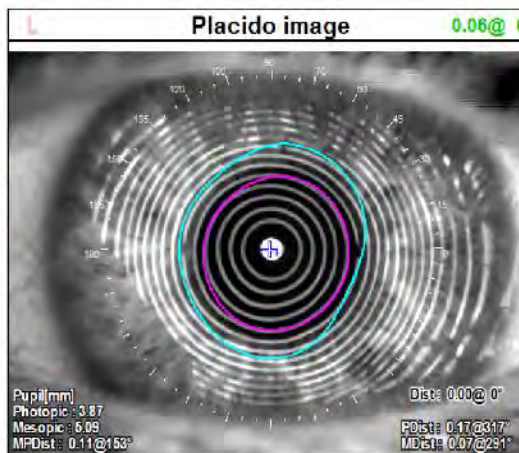
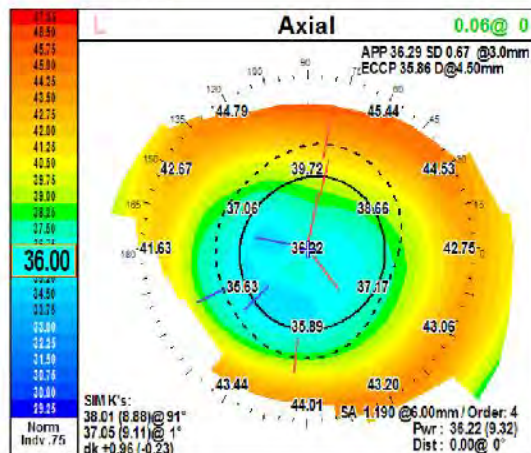
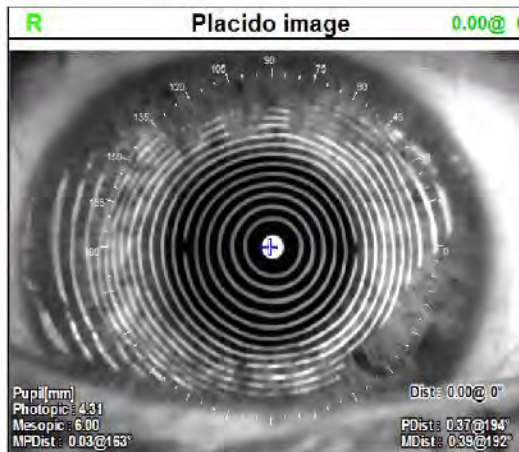
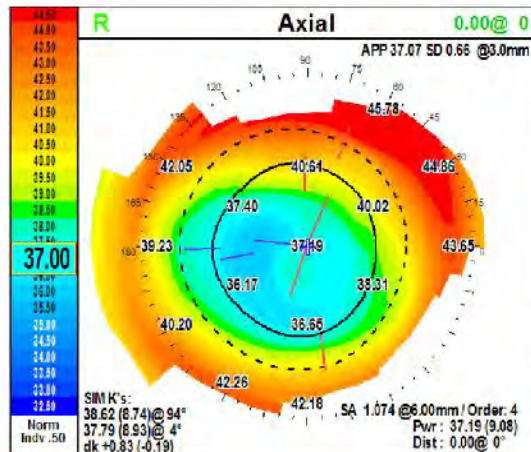
## Left eye

- -12.0+3.5x 55 20/60
- (note: high myopia temporarily restored – will be neutralized after planned cataract extraction with toric IOL)

Richard Erdey, MD

Case #5 52 yo woman with severe night vision glare (dysphotopsia) since LASIK (well-centered) in both eyes 2003 for high myopia (-10.0) performed elsewhere. Glare is worse in left eye. Snellen visual acuity is -0.50+0.50 x 151 20/30 but reduced when challenged with peripheral lights in dark environment in the left eye.

L	06/19/2023 08:25	Comment	L		Diagnosis	L	
R	06/19/2023 08:24		R			R	



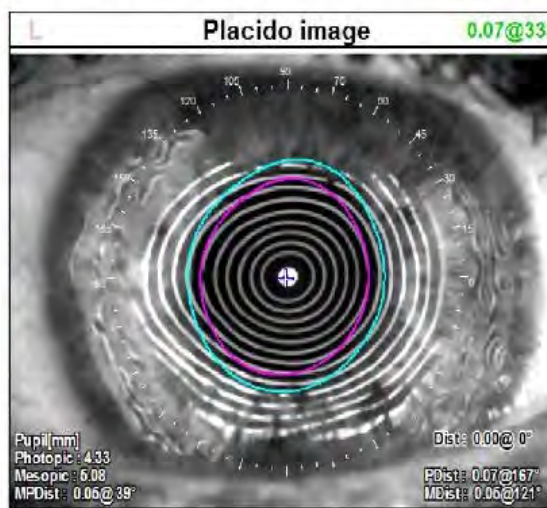
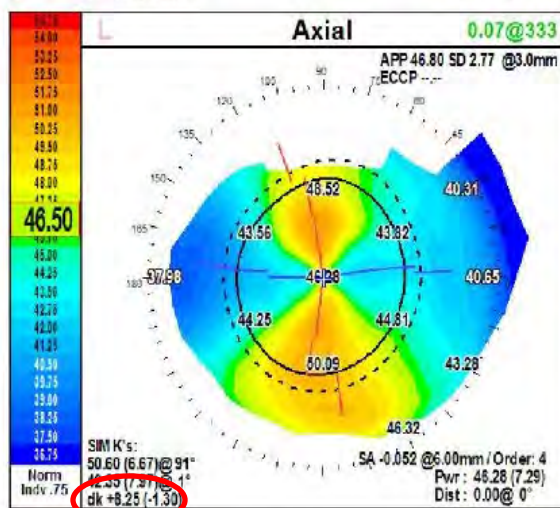
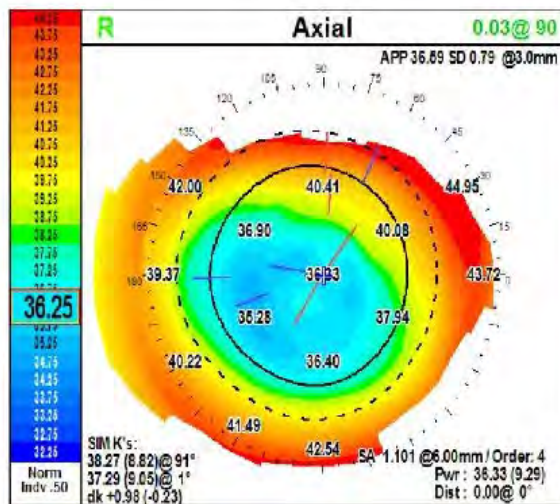
OS: -0.50+0.50 x 151 20/30 but reduced when challenged with peripheral lights in dark environment in the left eye.

# Case #5 52 yo woman (dysphotopsia)

8/2023 OS: Large diameter DALK (10.0mm donor/10.0mm) laterality matched.

2003 LASIK OU for high myopia (-10.0)

L		Comment	R		Diagnosis	L		R	
09/06/2023 07:11									
09/06/2023 07:11									



OS: 3 WKS POST-OP: large astigmatism magnitude -13.5+8.0x88 20/70

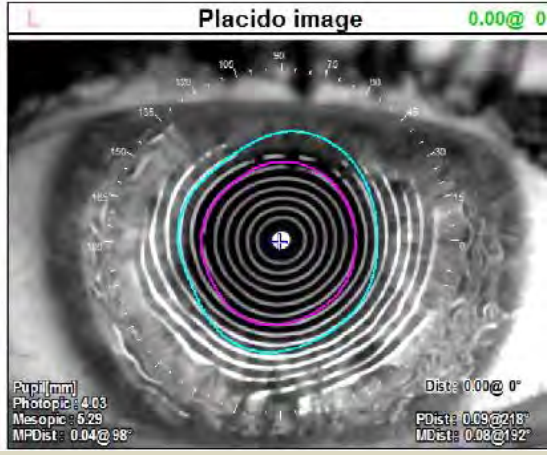
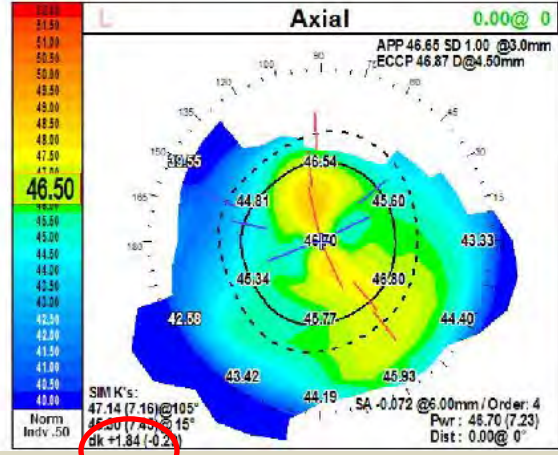
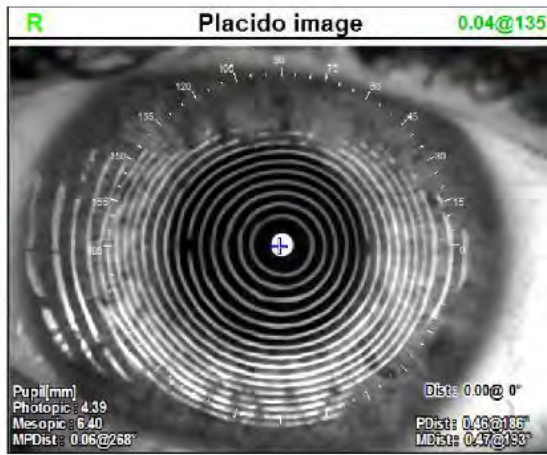
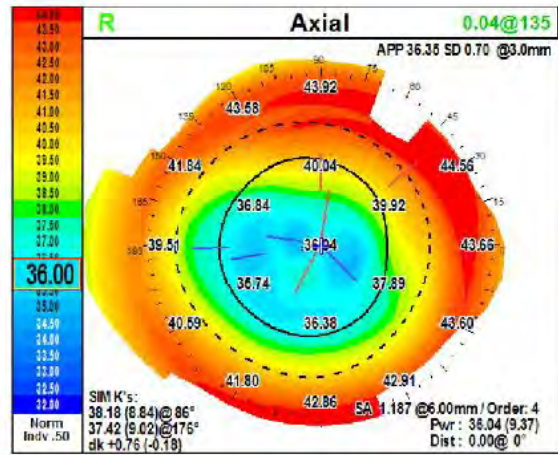
# Case #5 52 yo woman (dysphotopsia)

9/6/2023 OS: ADJUST RUNNING SUTURE UNDER INTRAOPERATIVE KERATOMETER

8/2023 OS: Large diameter (10.0mm donor/10.0mm) DALK

2003 LASIK OU for high myopia (-10.0)

L	09/21/2023 07:22	Comment	L		Diagnosis	L	
R	09/21/2023 07:22		R			R	



OS: 2 WKS after suture adj:  
 astigmatism dramatically  
 reduced in graft, cornea  
 resteeptened -14.0+2.75x105  
 high myopia has returned as  
 expected. Temporary Soft  
 Contact lens OS to restore  
 binocularity until suture can  
 be removed – **GLARE  
 RESOLVED!**

# Case #5 52 yo woman (dysphotopsia)

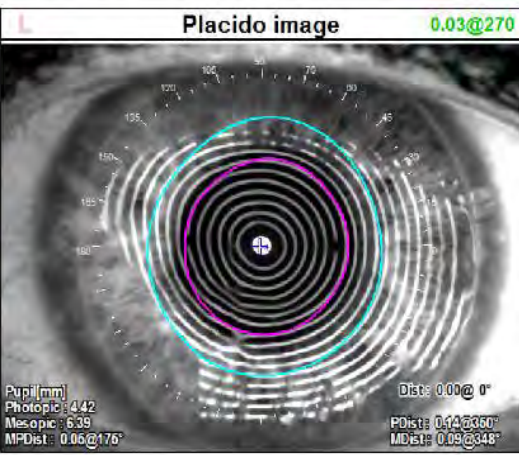
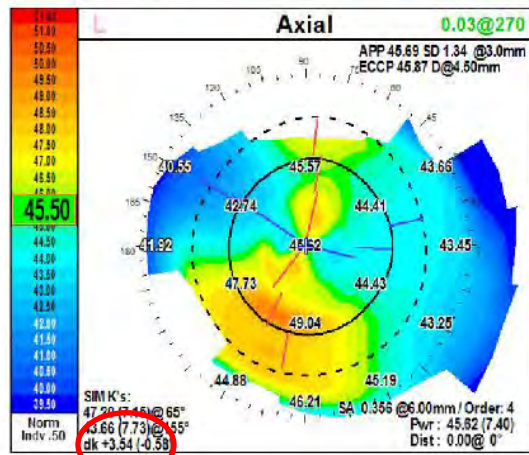
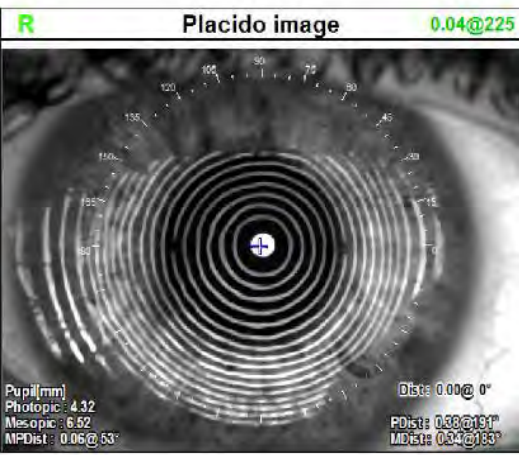
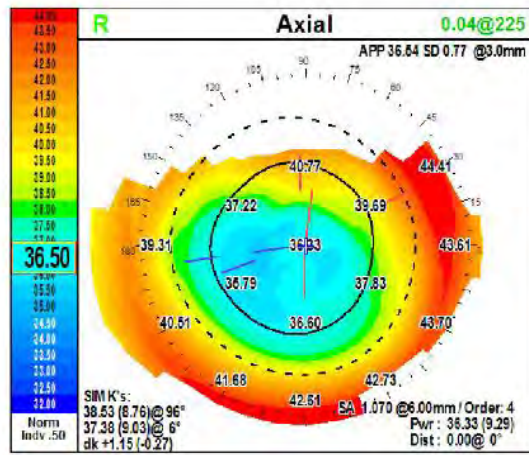
4/4/2024 OS: remove running suture

9/6/2023 OS: ADJUST RUNNING SUTURE

8/2023 OS: Large diameter (10.0mm donor/10.0mm) DALK

2003 LASIK OU for high myopia (-10.0)

L	05/31/2024 08:09	Comment	L	Diagnosis	L
R	05/31/2024 08:09		R		R



OS: 5/31/2024 6wks after suture removal, residual astigmatism 3.5D (higher than 2.5D upper limit for LAL) AK paired scleral tunnel planned to further reduce astigmatism.

# Case #5 52 yo woman (dysphotopsia)

6/11/2024: OS AK Paired Scleral tunnels x 75 and 150

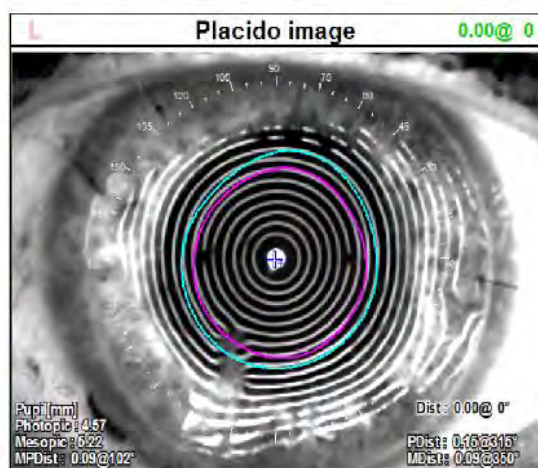
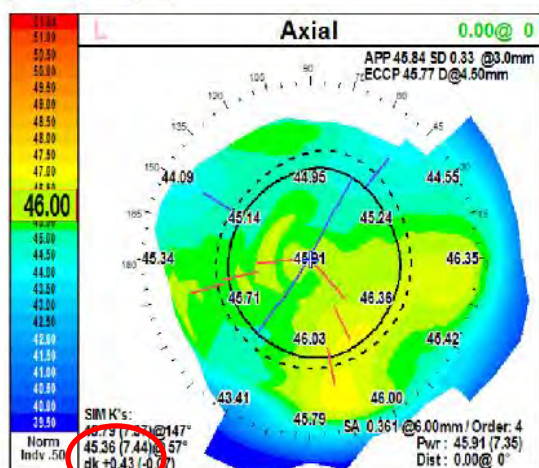
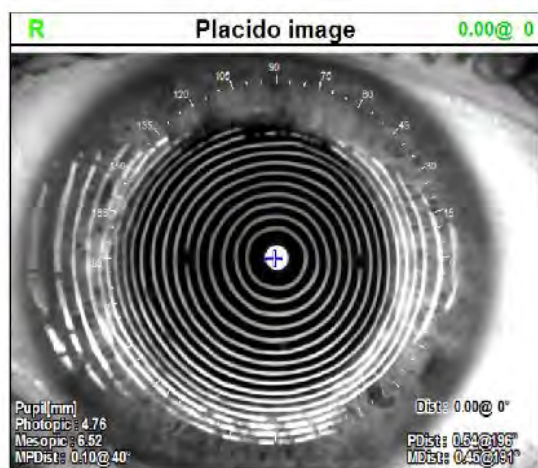
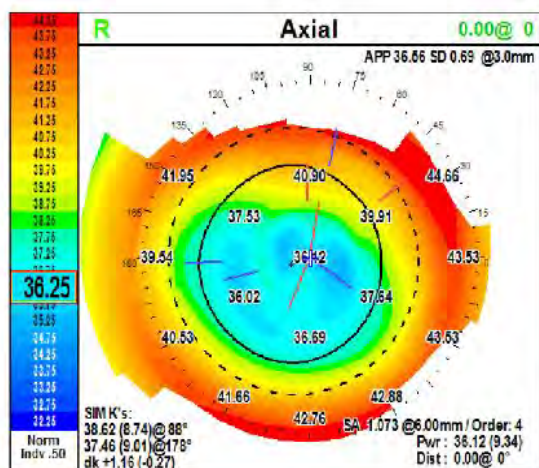
4/4/2024 OS: remove running suture

9/6/2023 OS: Adjust running suture

8/2023 OS: Large diameter (10.0mm donor/10.0mm) DALK

2003 LASIK OU for high myopia (-10.0)

L	07/01/2024 09:04	Comment	L		Diagnosis	L	
R	07/01/2024 09:03		R			R	



OS: 7/1/2024 2wks after AK paired scleral tunnel astigmatism is reduced to near spherical levels. OS RX: -12.0 ready for cataract extraction w LAL

Richard Erdey, MD

Case #5 52 yo woman (dysphotopsia)

7/2/2024: OS Cataract Extraction with LAL - GLARE RESOLVED!

6/11/2024: OS AK Paired Scleral tunnels x 75 and 150

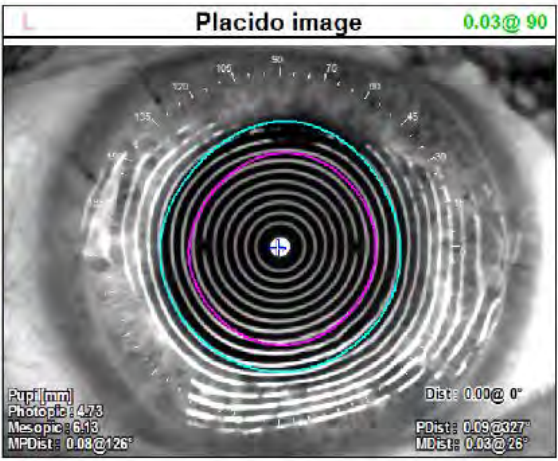
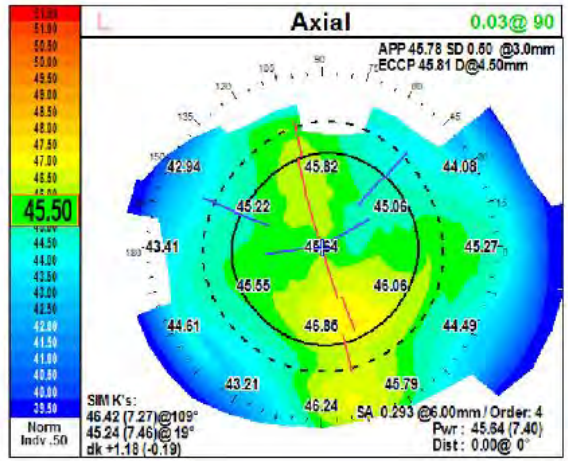
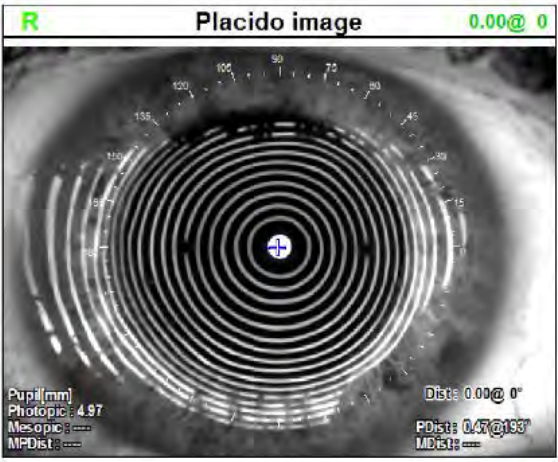
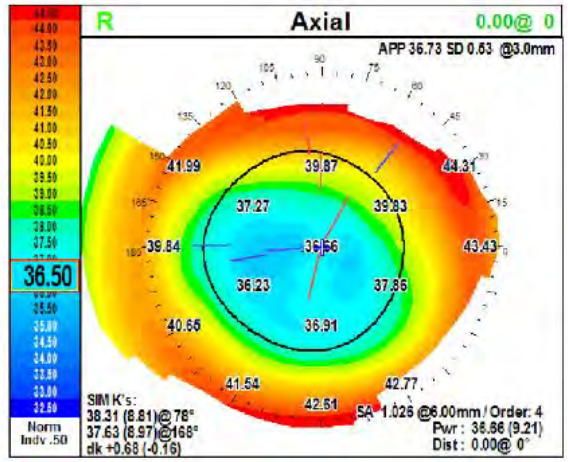
4/4/2024 OS: remove running suture

9/6/2023 OS: Adjust running suture

8/2023 OS: Large diameter (10.0mm donor/10.0mm) DALK

2003 LASIK OU for high myopia (-10.0)

L	11/20/2024 07:58	Comment	L	Diagnosis	L
R	11/20/2024 07:58		R		R



OS:11/20/2024  
 UCVA 20/20 GLARE  
 RESOLVED!  
 OS RX: -0.5+0.5x151 after  
 Cataract Ext w LAL. Since  
 outcome so exceptional no  
 rush to perform LDD  
 treatment until cornea  
 stability assured.

Richard Erdey, MD

# Case #5: Testimonial



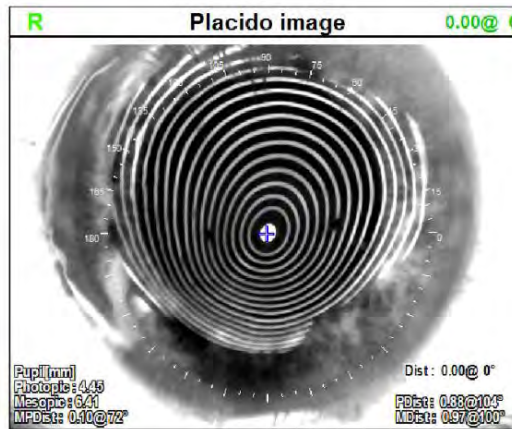
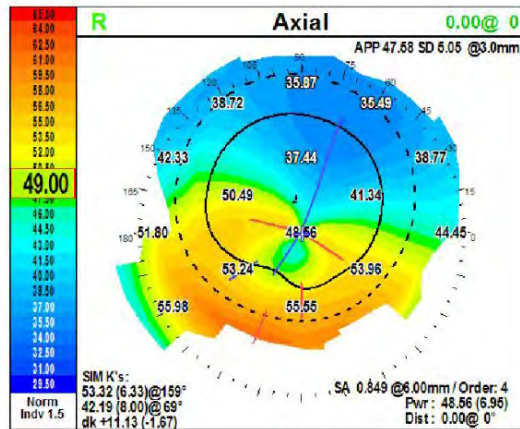
[https://youtube.com/shorts/pTE4M3\\_TDus](https://youtube.com/shorts/pTE4M3_TDus)



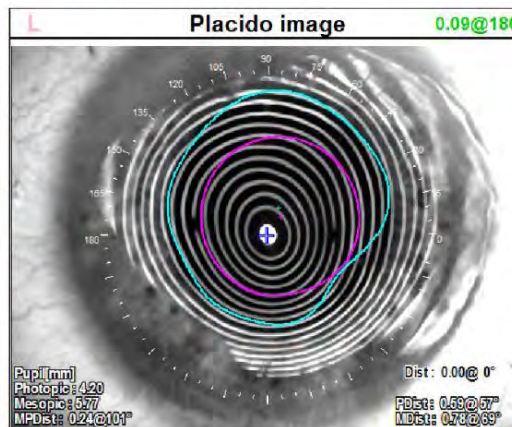
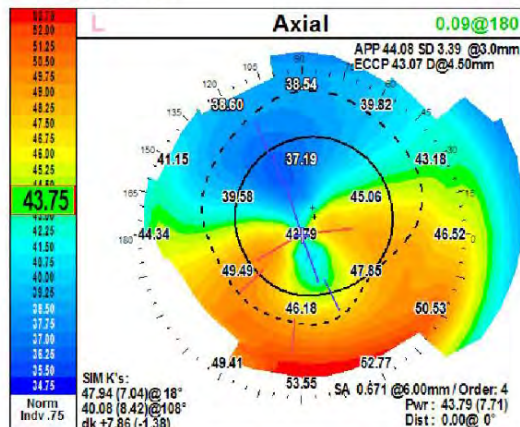
# Case #6 65 yo man LASIK ectasia both eyes

## 2001 LASIK (-4.0 OU)

Patient		Technician	
L	06/02/2021 09:46		
R	06/02/2021 09:46	Comment	Diagnosis
		L	L
		R	R



-10.0+8.0x155 20/100



-6.5+6.5x20 20/30

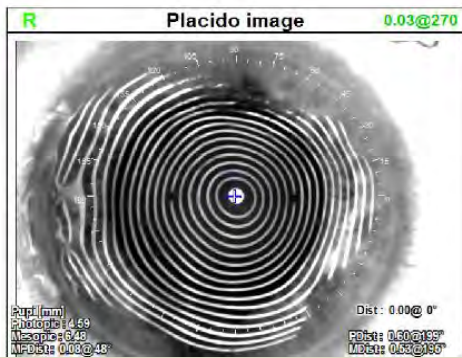
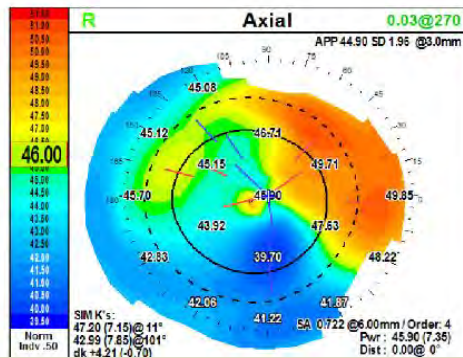
Case #6 65 yo man LASIK ectasia both eyes

7/2022 Right eye: running suture removal

8/2021 Right eye: DALK 10.0mm bed/10.0mm donor

2001 LASIK both eyes (-4.0 OU)

Ref	12/21/2022 15:18	Comment	R	Diagnosis	R
L		L		L	



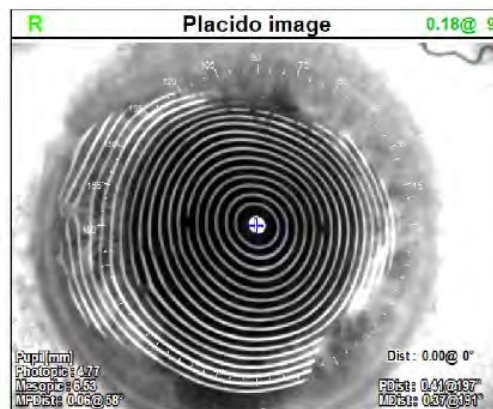
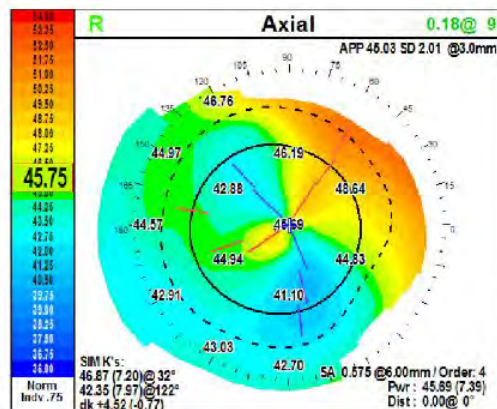
-8.75+3.25x45 20/40

1/2023 Astigmatic Keratotomy (AK) w scleral tunnel x 40



Post-AK cylinder more orthogonal

L	12/05/2024 08:59	Comment	L	Diagnosis	L
R	12/05/2024 08:59	R		R	



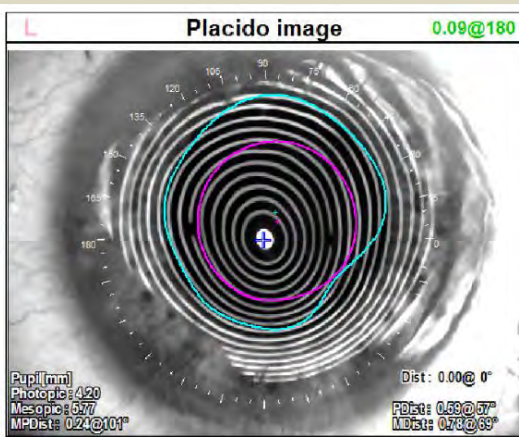
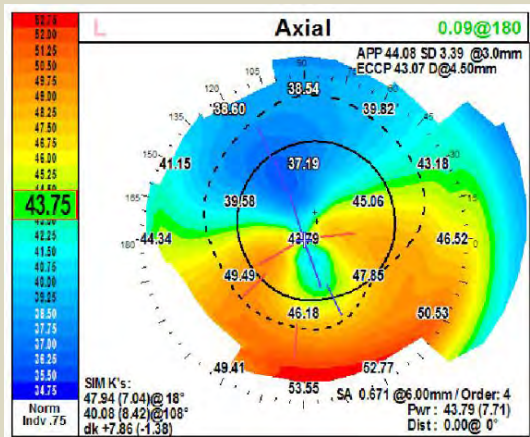
5/2023: Cataract extraction with Toric (MX60T4 12.5D)

Plano+0.5x60 20/25

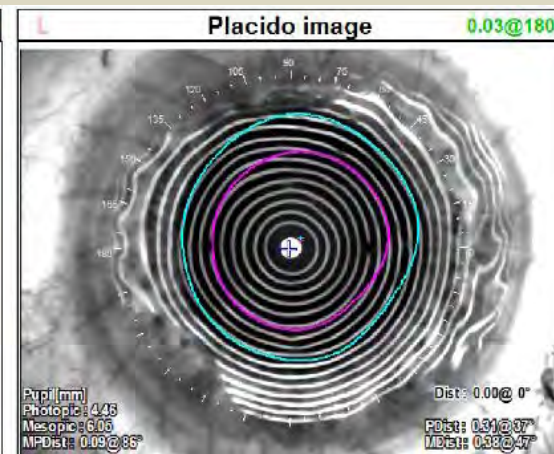
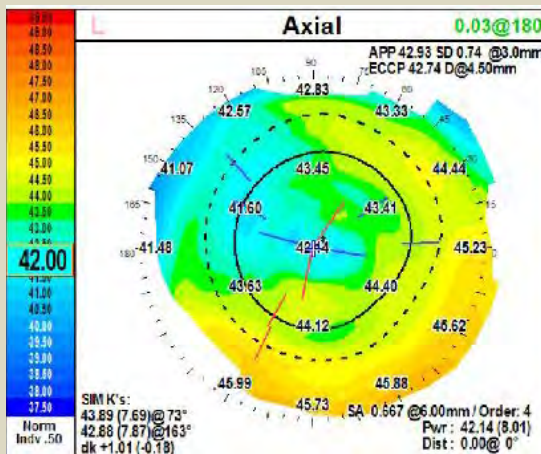
Case #6 65 yo man LASIK ectasia both eyes

11/2023 Left eye: DALK 10.0mm bed/10.0mm donor 24 bite adjusted running suture

2001 LASIK both eyes (-4.0 OU)



-6.5+6.5x20 20/30



12/6/2024 suture "in"

-3.0 +1.25x20 20/40

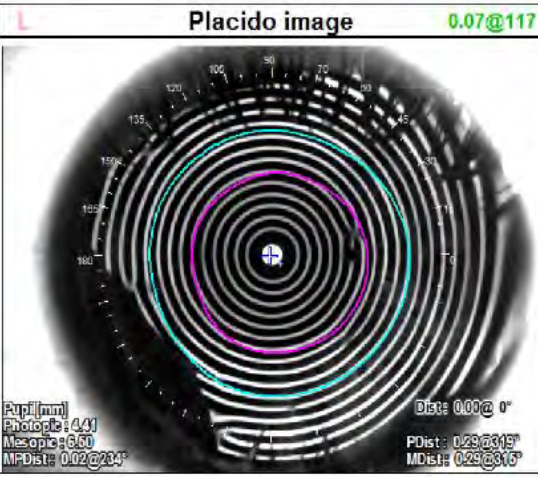
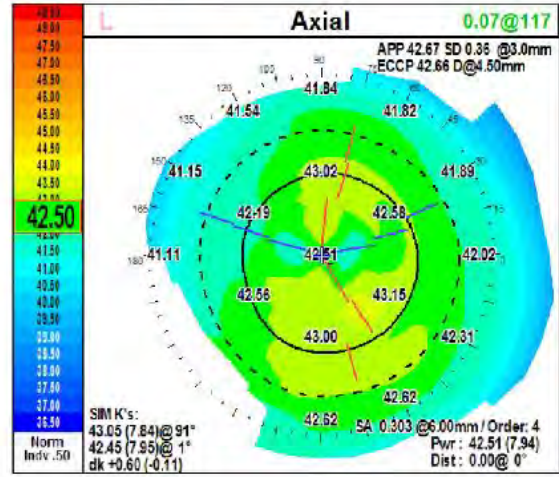
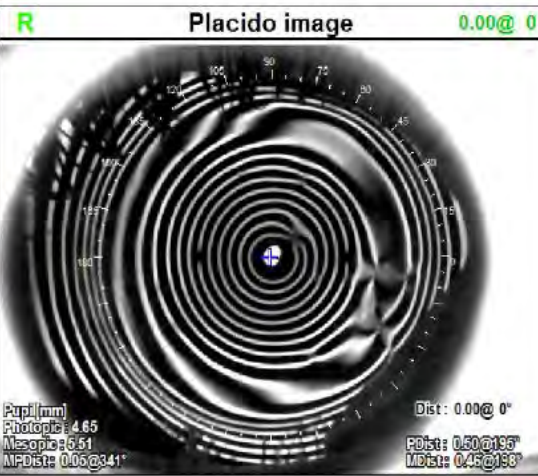
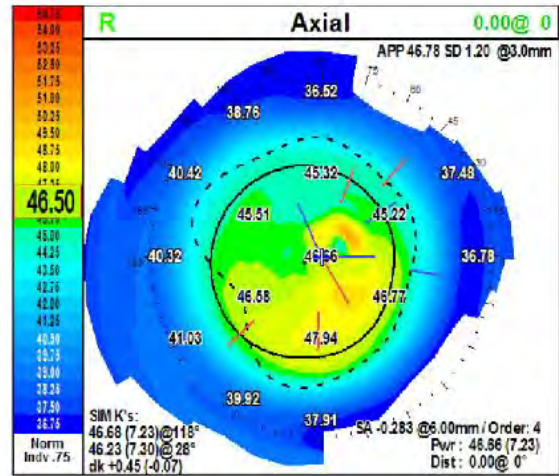
# Case #6 Testimonial



<https://youtube.com/shorts/uj4bneNT3Gk>

Case #7 32 yo Dentist traveled from Spit, Croatia with severe dysphotopsia (glare) immediately after 2017 Hyperopic LASIK OD in Croatia for high hyperopia (+5.0) and amblyopia

L	09/16/2019 12:39	Comment	L		Diagnosis	L	
R	09/16/2019 12:39		R			R	



OD: +1.0 20/100  
 Note total corneal power excessively steepened w distortion in periphery

OS: Plano 20/20

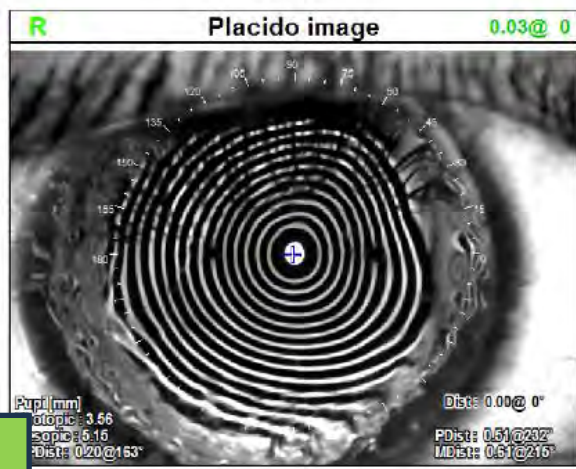
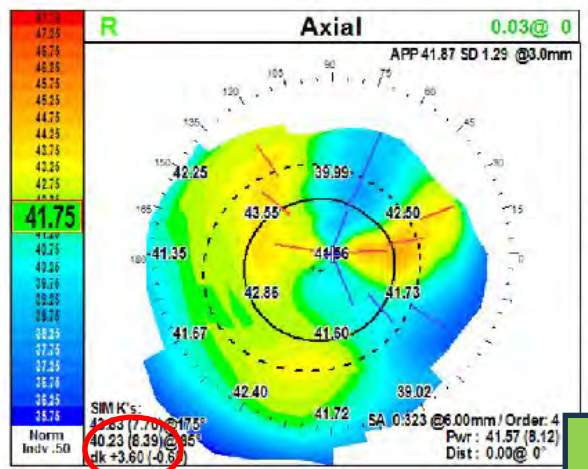
Case #7 32 yo Dentist traveled from Spit, Croatia with severe dysphotopsia (glare)

6/17/2024 OD adjust running suture

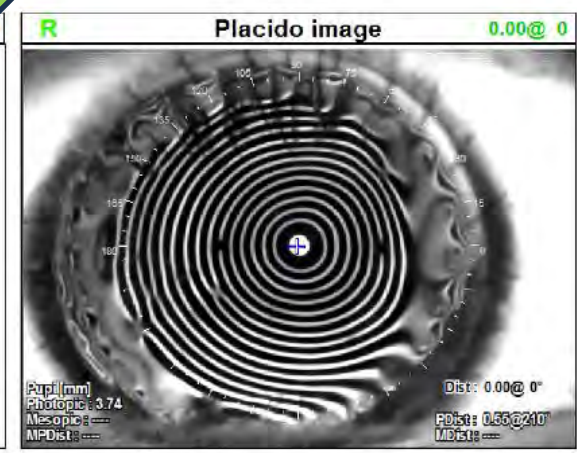
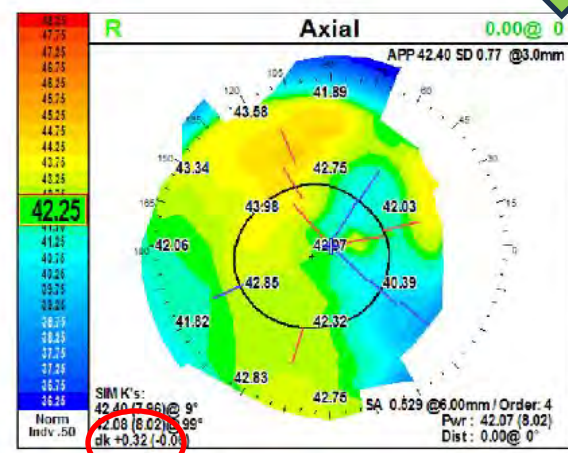
6/5/2024 OD DALK 10.0mm bed/10.0mm donor laterality matched

2017 Hyperopic LASIK OD for high hyperopia (+5.0) and amblyopia

06/17/2024 08:34	Comment	R	Diagnosis	R
		L		L



L 06/24/2024 08:28	Comment	L	Diagnosis	L
R 06/24/2024 08:28		R		R



6/17/2024:  
3.6D cylinder in DALK graft



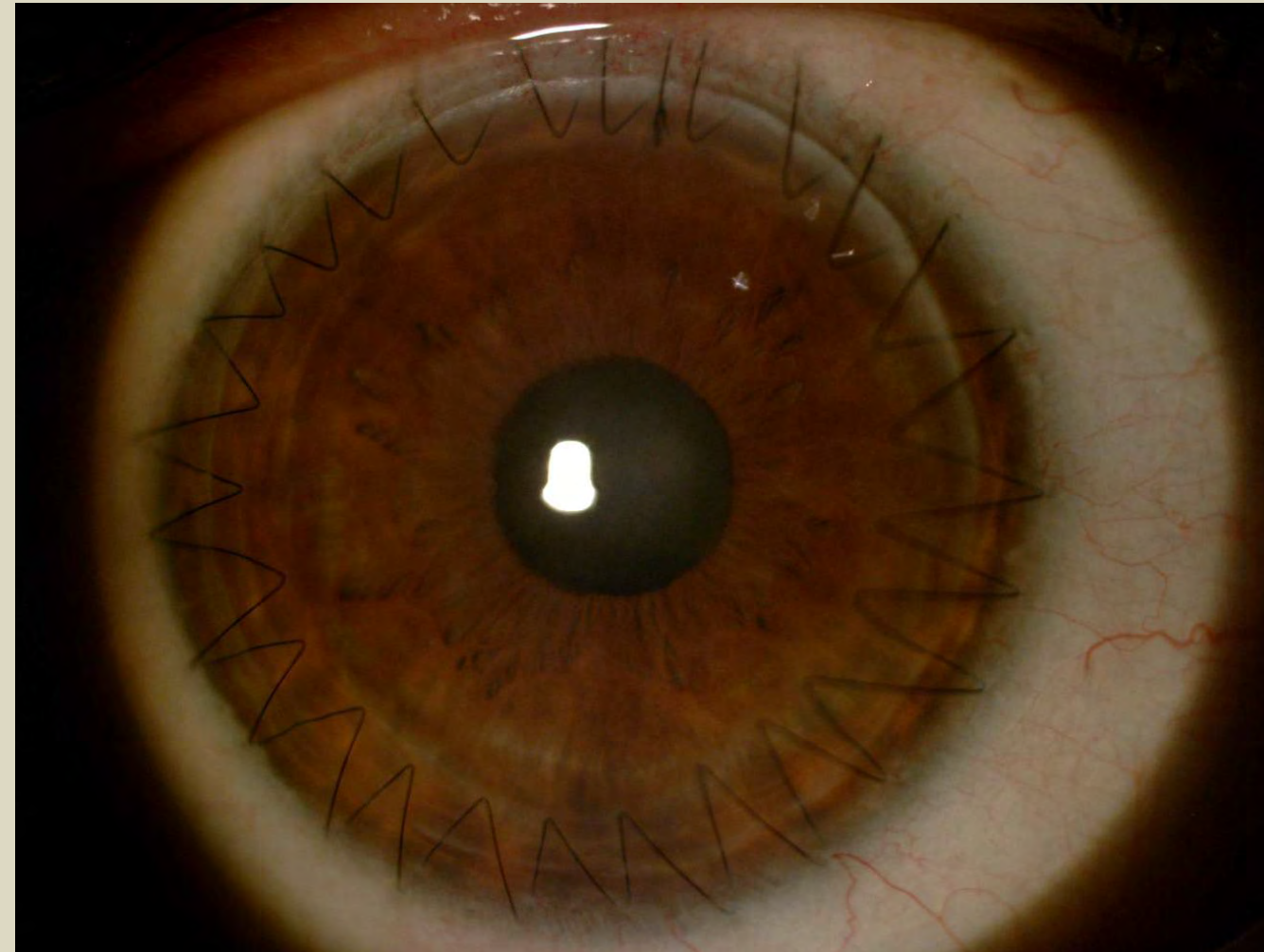
6/24/2024  
1 week after suture adjustment :  
0.3D cylinder  
Glare Gone!

Case #7 32 yo Dentist traveled from Spit, Croatia with severe dysphotopsia (glare)

6/17/2024 OD adjust running suture

6/5/2024 OD DALK 10.0mm bed/10.0mm donor laterality matched

2017 Hyperopic LASIK OD for high hyperopia (+5.0) and amblyopia



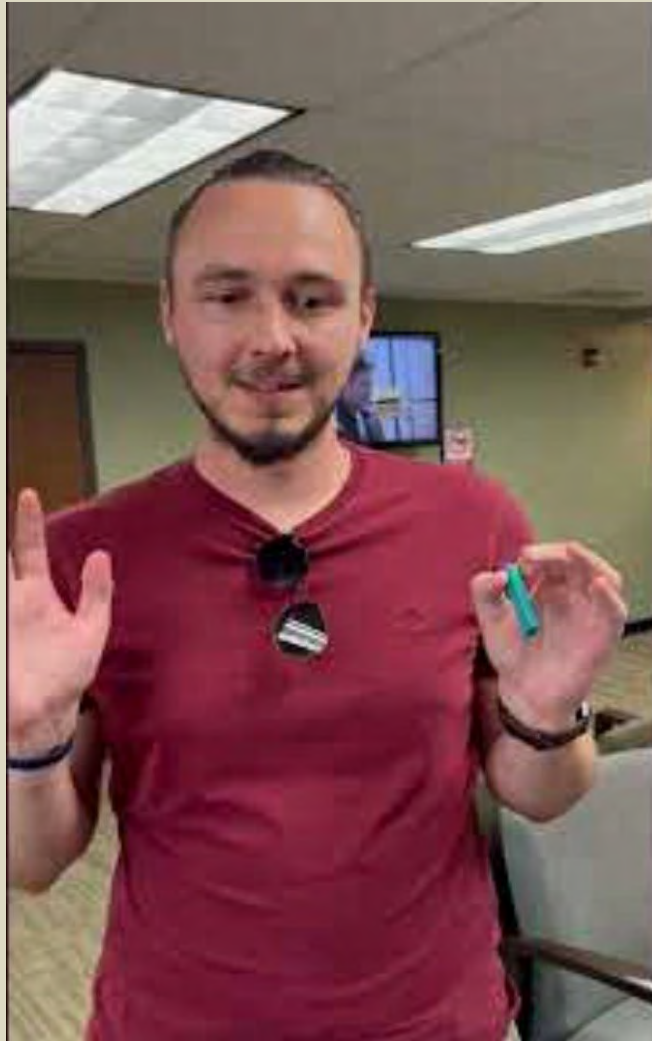
6/24/2024

1 week after suture  
adjustment :

0.3D cylinder

Glare Gone!

Case #7 TESTIMONIAL: 32 yo Dentist from Spit, Croatia with severe (dysphotopsia)  
6/17/2024 OD adjust running suture  
6/5/2024 OD DALK 10.0mm bed/10.0mm donor laterality matched  
2017 Hyperopic LASIK OD for high hyperopia (+5.0) and amblyopia



6/24/2024

1 week after suture  
adjustment :

0.3D cylinder

Glare Gone! Last visit  
before leaving for  
home (Croatia)



Case #7 32 yo man Dentist traveled from Spit, Croatia with severe (dysphotopsia)

6/17/2024 OD adjust running suture

6/5/2024 OD DALK 10.0mm bed/10.0mm donor laterality matched

2017 Hyperopic LASIK OD for high hyperopia (+5.0) and amblyopia



1/8/2025 6mos  
later

Iphone/Viber App  
Glare still gone!