POWER-SPLIT ORTHOKERATOLGOY AND SINGLE VISION SPECTACLES FOR EXTREME PEDIATRIC HIGH MYOPIA WITH LATTICE DEGENERATION:

A Case Report

Abstract

This case report discusses a 13-year-old male with extreme high myopia and significantly high axial length. Fundus examination revealed severely tessellated fundus with lattice degeneration, prompting an immediate prophylactic retinal photocoagulation to reduce detachment risk. The refractive correction was split into an orthokeratology lens with a target power of -7.00DSph and a Single Vision spectacle lens. Over the span of 15 months, adjustments were done to optimize the orthokeratology lens. The optical biometry confirmed a slowed axial elongation to +0.10mm/year. This case highlights the importance of applying retinal protection, tailored optical correction, and regular axial length monitoring in high-risk pediatric myopia.

CASE REPORT

PATIENT PROFILE

Gender: Male

Age: 13 years old

Ethnicity: Filipino

Chief Complaint: Myopia has been increasing. Looking for ways to manage Myopia. The patient was referred for Myopia Control.

Ocular History: Has been wearing eyeglasses as far as parents remember. The previous prescription is 1 year old.

Family History: No history of Myopia in the Family. Father and Mother's unaided Visual acuity is 20/20 for OD, OS, and OU. 1 brother and one sister do not wear corrective spectacles.

Lifestyle: The patient uses mobile devices to play games and social media, time on the device is not limited. The patient plays basketball.

INITIAL VISIT: JANUARY 27, 2024

SUBJECTIVE:

UNAIDED VISUAL ACUITY

OD: <20/400

OS: <20/600

PINHOLE VISUAL ACUITY:

OD 20/400

OS 20/400

PREVIOUS PRESCRIPTION

1 year old

OD -12.25 / -2.50 x 15 20/200

OS -12.50 / -2.25 x 145 20/200

DRY REFRACTION

OD -14.50 / - 1.25 x 45 20/160

OS -15.25 / -1.50 x 150 20/160

PHOROMETRY

Induced Phoria at Far: 3 exo

Induced Phoria at Near 4 Exo

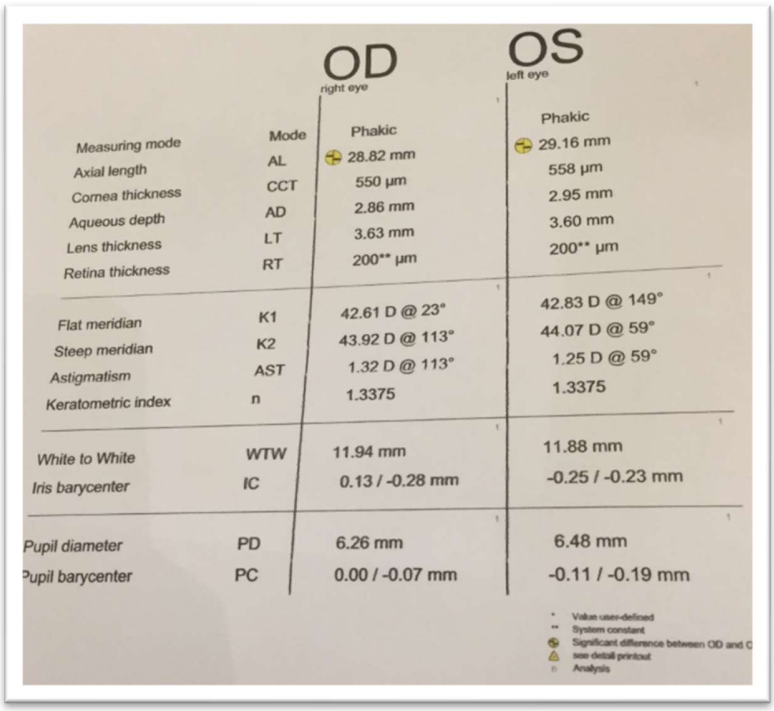
CYCLOPLEGIC REFRACTION

OD -14.00 / -1.25 x 45 20/60

OS -14.00 / -1.50 x 150 20/60

OBJECTIVE:

OPTICAL BIOMETRY



		OD right eye	OS left eye
Measuring mode	Mode	Phakic	Phakic
Axial length	AL	28.82 mm	29.16 mm
Cornea thickness	CCT	550 µm	558 µm
Aqueous depth	AD	2.86 mm	2.95 mm
Lens thickness	LT	3.63 mm	3.60 mm
Retina thickness	RT	200** µm	200** µm
Flat meridian	K1	42.61 D @ 23°	42.83 D @ 149°
Steep meridian	K2	43.92 D @ 113°	44.07 D @ 59°
Astigmatism	AST	1.32 D @ 113°	1.25 D @ 59°
Keratometric index	n	1.3375	1.3375
White to White	WTW	11.94 mm	11.88 mm
Iris barycenter	IC	0.13 / -0.28 mm	-0.25 / -0.23 mm
Pupil diameter	PD	6.26 mm	6.48 mm
Pupil barycenter	PC	0.00 / -0.07 mm	-0.11 / -0.19 mm

* Value user-defined
** System constant
Significant difference between OD and O
see detail printout
n Analysis

Optical Biometry indicates the eyeball is highly elongated with an axial length of OD 28.82mm and 29.16mm OD and OS, respectively.

SLITLAMP BIOMICROSCOPE

The only significant finding that was observed was the tear breakup time of 5 seconds. Eyelids are clear, eyelashes are oily and pointing outward, Conjunctival injections present, the Cornea is clear, the lenses are clear, and the Van Herick grade is 3.

INTERNAL FUNDUS EXAMINATION

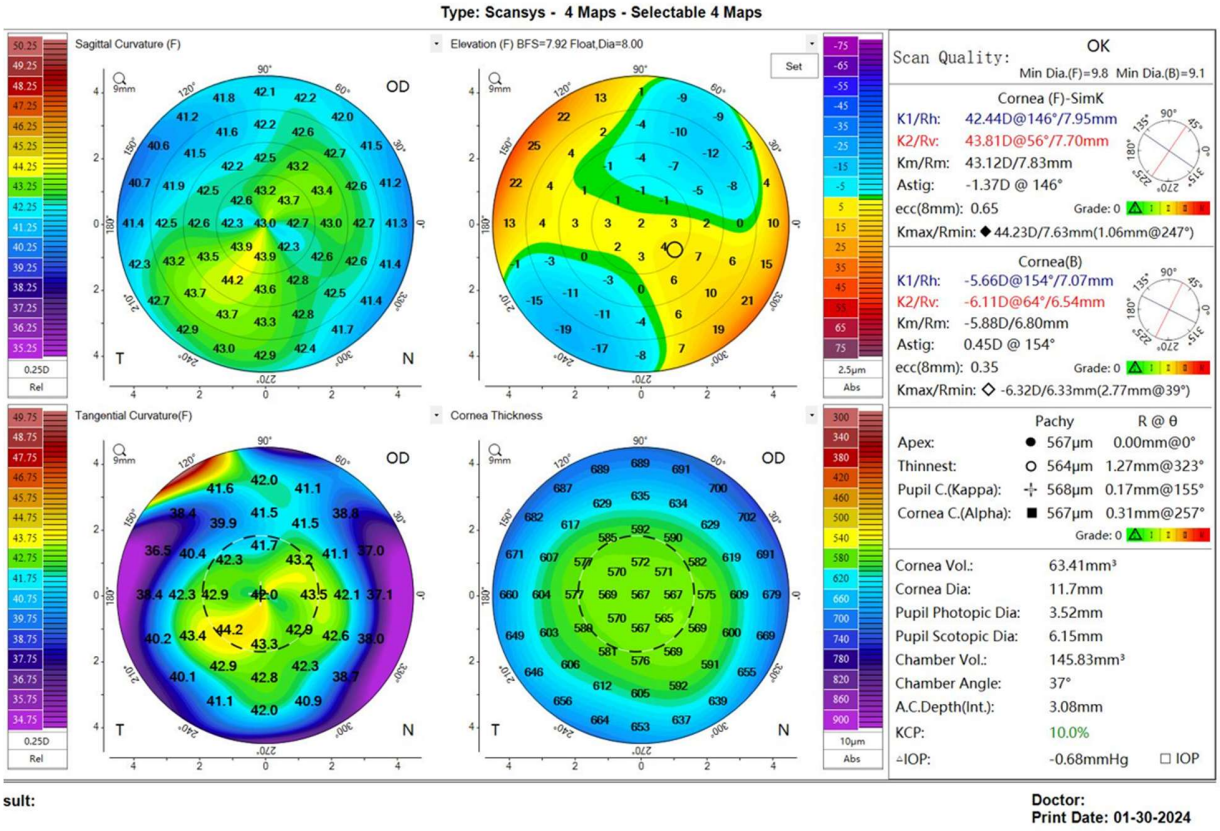
Significant thinning was observed using the Slit Lamp biomicroscope, paired with a 90D Lens while the patient is under cycloplegia. The attending Ophthalmologist diagnosed the patient of having Lattice Degeneration, and suggested that the patient undergo Laser Retinopexy, using laser photocoagulation to strengthen the Retina of the patient.

CORNEAL TOMOGRAPHY

Simulated K-readings for the right eye appear to be 42.44D and 43.81D, with a -1.37DCyl x 146. Eccentricity was recorded to be 0.65. Pachymetry shows no thinning on the Cornea, with the thinnest portion of 564 microns. Corneal diameter is 11.7mm.

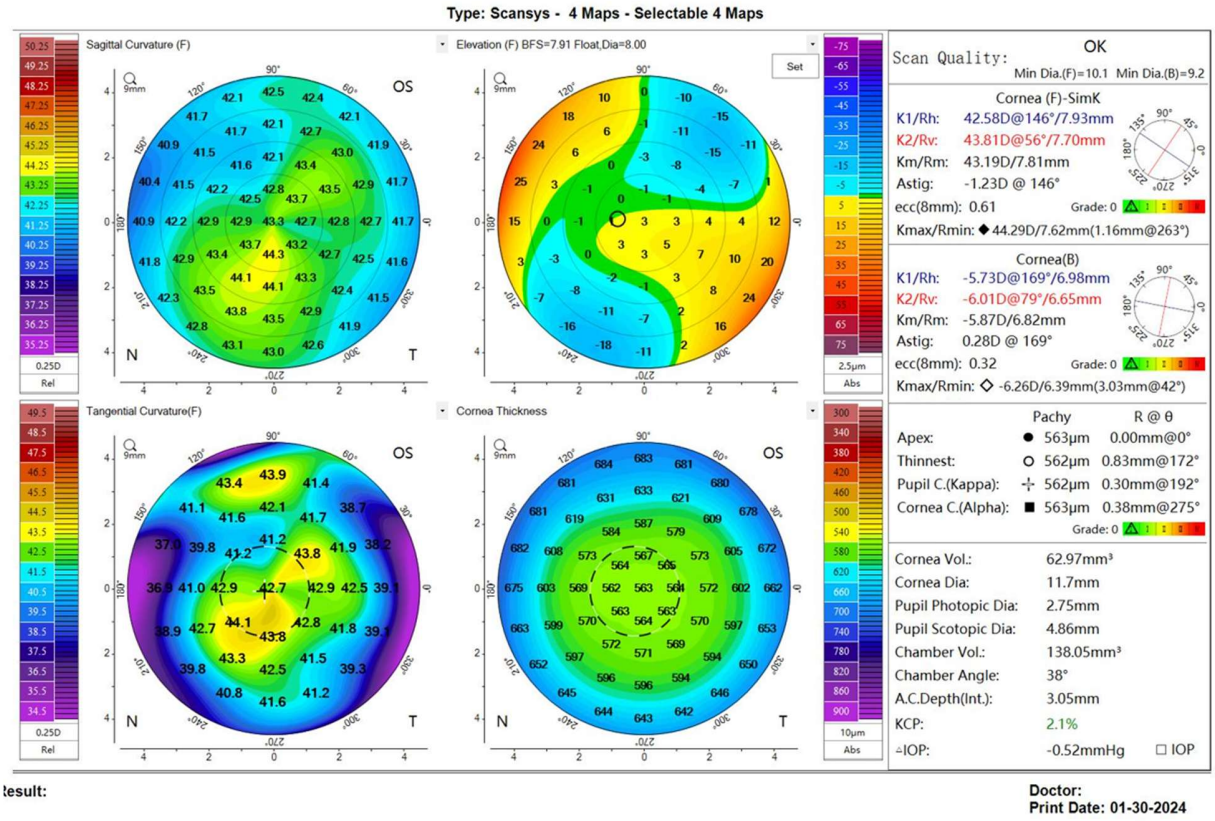
As for the left eye, K readings were 42.58D and 43.81D. Corneal Astigmatism formed was -1.25D x 146. Pachymetry shows good corneal thickness, with the thinnest being 562 microns. Corneal Diameter is 11.7mm.

Both eyes show no signs of Corneal Ectasia.



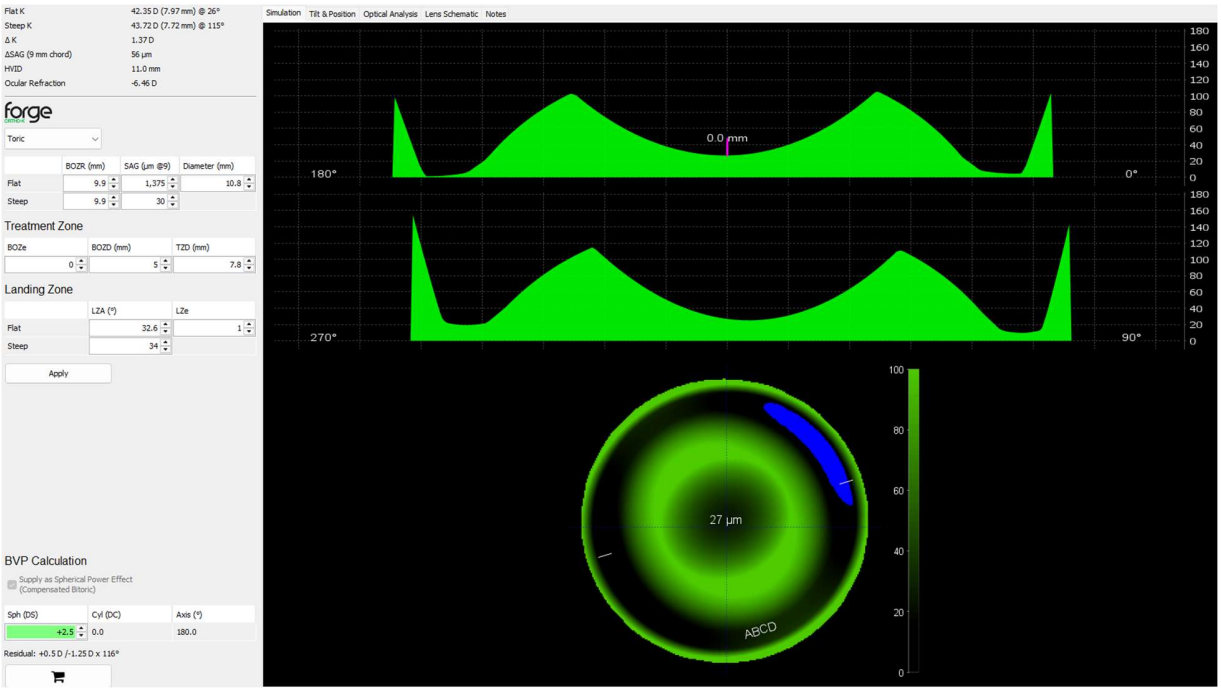
sult:

Doctor:
Print Date: 01-30-2024

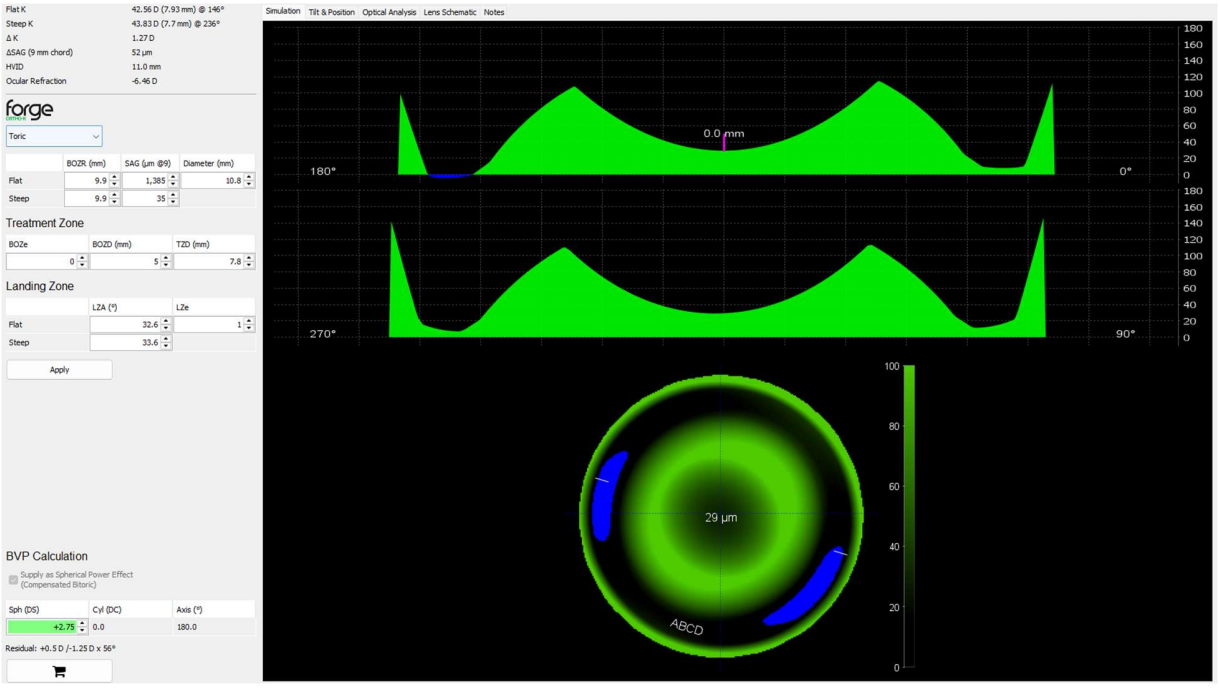


ORTHOKERATOLOGY LENS DESIGN

OD


Flat K 42.35 D (7.97 mm) @ 26°
Steep K 43.72 D (7.72 mm) @ 115°
Δ K 1.37 D
ΔSAG (9 mm chord) 56 µm
HVID 11.0 mm
Ocular Refraction -6.46 D
forge
Toric
BOZR (mm) SAG (µm @9) Diameter (mm)
Flat 9.9 1,375 10.8
Steep 9.9 30
Treatment Zone
BOZe BOZD (mm) TZD (mm)
0 5 7.8
Landing Zone
LZA (°) LZe
Flat 32.6 1
Steep 34
Apply
BVP Calculation
Supply as Spherical Power Effect (Compensated Bitoric)
Sph (DS) Cyl (DC) Axis (°)
+2.5 0.0 180.0
Residual: +0.5 D /-1.25 D x 116°
Simulation Tilt & Position Optical Analysis Lens Schematic Notes
0.0 mm
180°
0°
270°
90°
27 µm
ABCD

OS


Flat K 42.56 D (7.93 mm) @ 146°
Steep K 43.83 D (7.7 mm) @ 236°
Δ K 1.27 D
ΔSAG (9 mm chord) 52 µm
HVID 11.0 mm
Ocular Refraction -6.46 D
forge
Toric
BOZR (mm) SAG (µm @9) Diameter (mm)
Flat 9.9 1,385 10.8
Steep 9.9 35
Treatment Zone
BOZe BOZD (mm) TZD (mm)
0 5 7.8
Landing Zone
LZA (°) LZe
Flat 32.6 1
Steep 33.6
Apply
BVP Calculation
Supply as Spherical Power Effect (Compensated Bitoric)
Sph (DS) Cyl (DC) Axis (°)
+2.75 0.0 180.0
Residual: +0.5 D /-1.25 D x 56°
Simulation Tilt & Position Optical Analysis Lens Schematic Notes
0.0 mm
180°
0°
270°
90°
29 µm
ABCD

IMPRESSION

The patient has high Myopia, with a highly elongated eyeball. The elongation has changed the fundus's structure, particularly the retina's thickness.

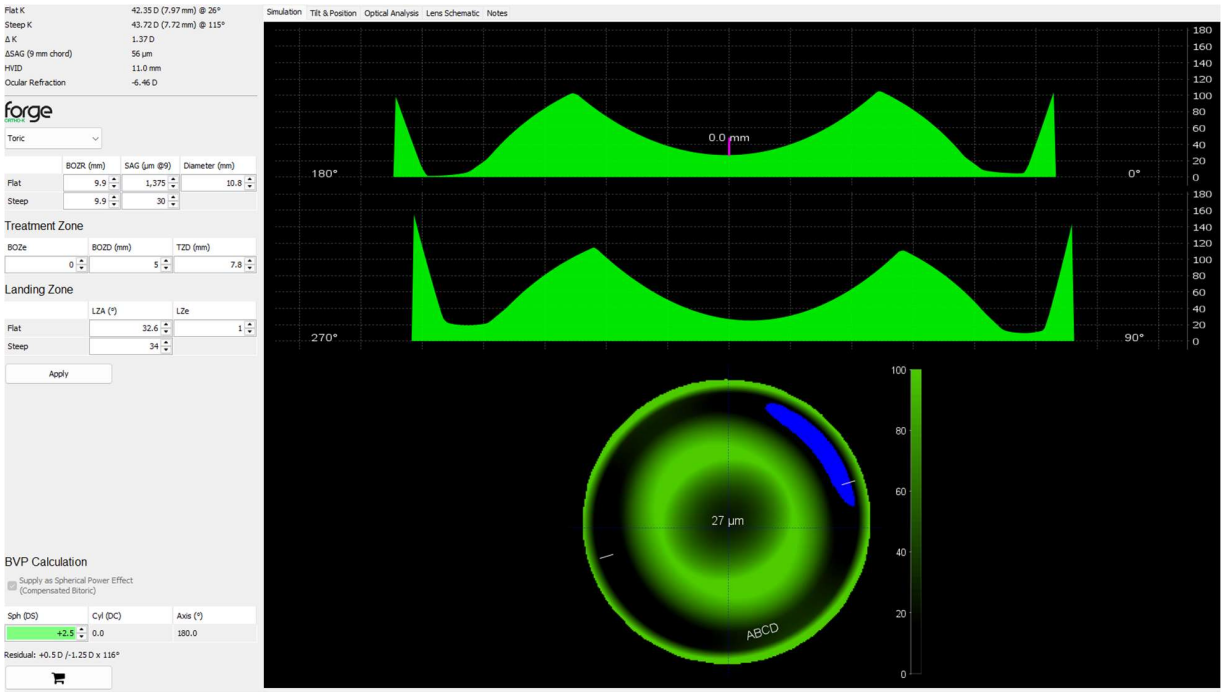
MANAGEMENT PLAN

The primary objective of this management plan is to preserve the health of the patient's eyes and to correct and slow down the progression of the patient's myopia.

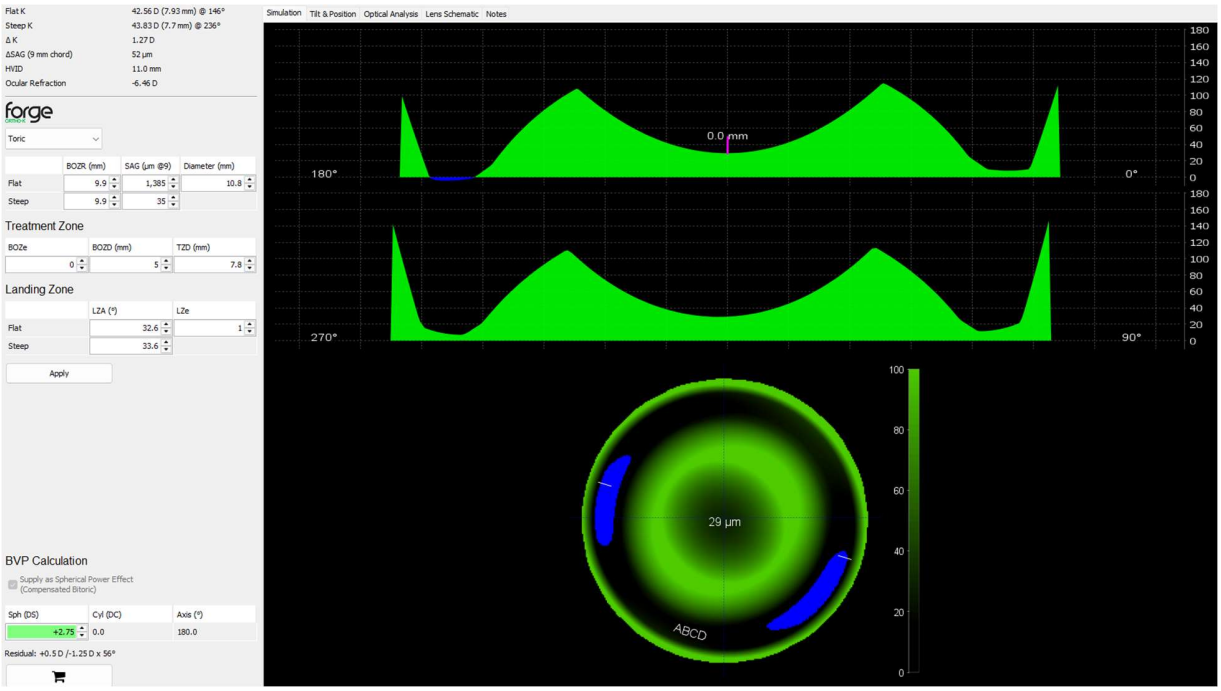
The patient was advised to undergo laser retinopexy for the lattice degeneration.

As for the power, the clinician has decided to do a power split for the high myopia of the patient. The clinician will design an Orthokeratology lens that has a target power of -7.00DSph on each eye and afterwards dispense a spectacle lens on whatever residual myopia is left.

OD



OS



DISPENSING: MARCH 16, 2024

LENS PARAMETERS #1

	OD	**OS**
BOZR flat	9.9mm	9.9mm
BOZR steep	9.9mm	9.9mm

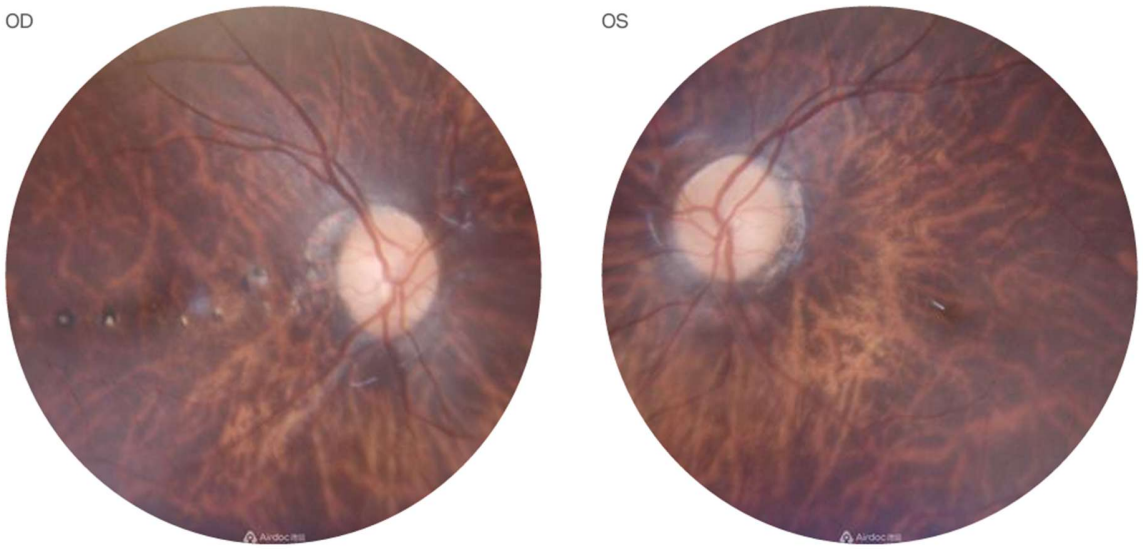
Lens Diameter (mm)	10.8	10.8
Sag microns @ 9mm Flat	1375	1385
Sag microns @ 9mm Steep	30	35
Back Optic Zone Diameter (mm)	5mm	5
Treatment Zone Diameter (mm)	7.8	7.8
Landing Zone Angle FLAT	32.6	32.6
Landing Zone Angle Steep	34	33.6
Landing Zone eccentricity	1	1

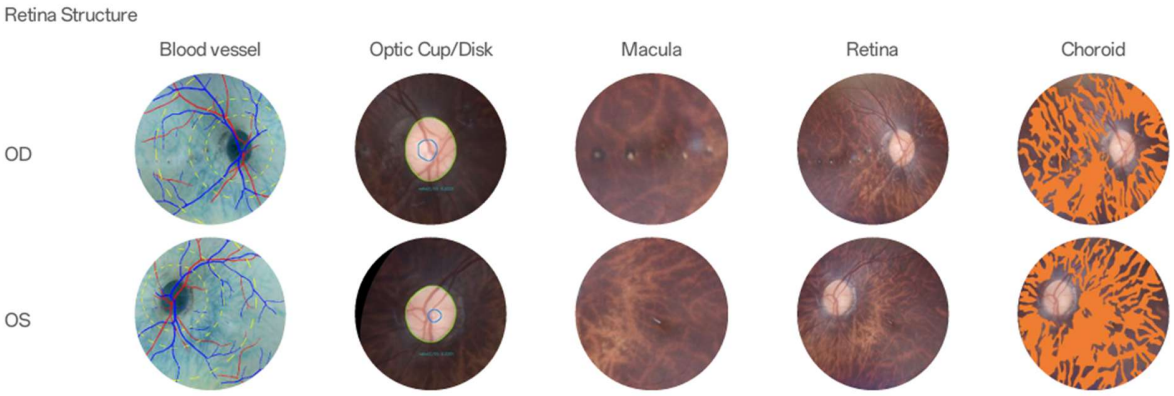
REFRACTION WITH THE ORHTO-K LENSES:

OD: -6.50DSph

OS: -6.50Dsph

FUNDUS PHOTOGRAPHY





Eye	Retinal arteriovenous ratio (AVR) in zone B Reference value : ≥0.67	C/D ratio Reference value : Vertical C/D <0.5. The difference between Horizontal and Vertical C/D (OS and OD) ≤0.2	Total area of drusen Reference value : 0	Total area of hemorrhage (mm^2)/ Total area of exudation (mm^2) Reference value : 0	Average density of tessellation Reference value : <0.15
OD	0.72	0.322	0	0/0	0.535
OS	0.80	0.22	0	0/0	0.599

Both eyes are showing a severe tessellated fundus. Cup-disc ratio is at 0.3 and 0.2 for right and left.

PLAN:

Dispense the Orthokeratology lenses, and an eyeglass of -7.00 was temporarily dispensed while the Orthokeratology lens flattens the Cornea.

APRIL 20, 2024, FOLLOW UP

Remarks:

Not much flattening happened. Consider improving the fit.

Unaided VA with -7.00 eyeglasses:

OD 20/60

OS 20/60

Refraction with Orthokeratology Lens

OD -6.00 -20/60

OS -6.50 20/60

Refraction WITHOUT Orthokeratology Lens

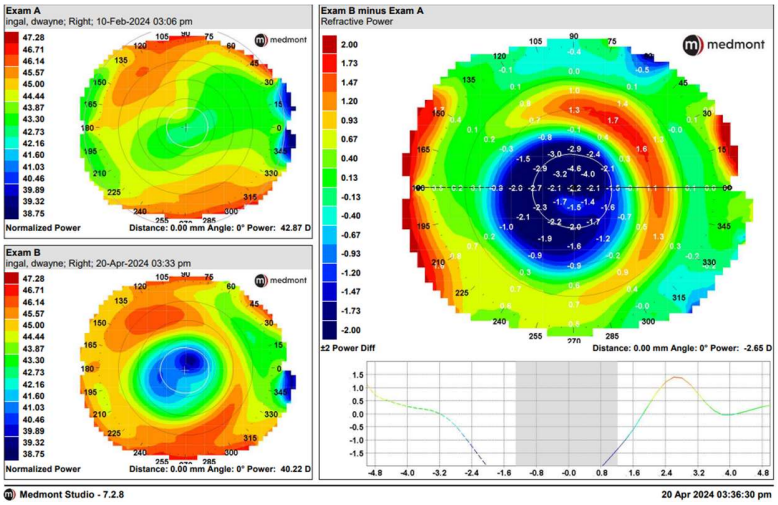
OD -11.00 / - 2.00 x 25 20/60

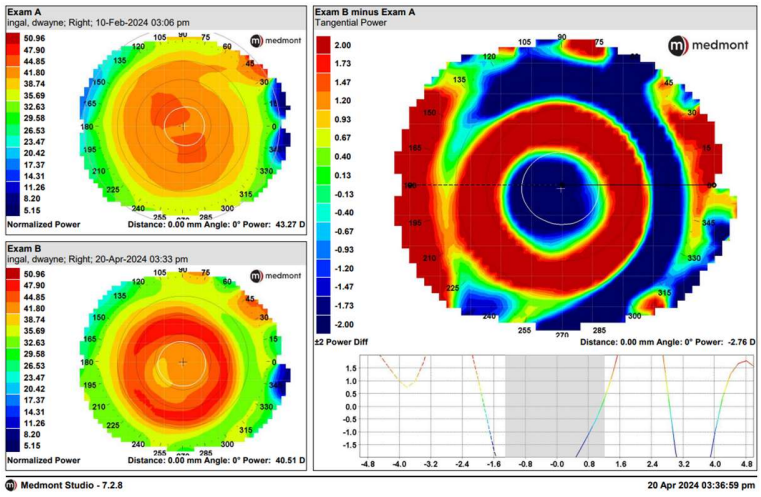
OS -9.00 / -2.75 x 135 20/50

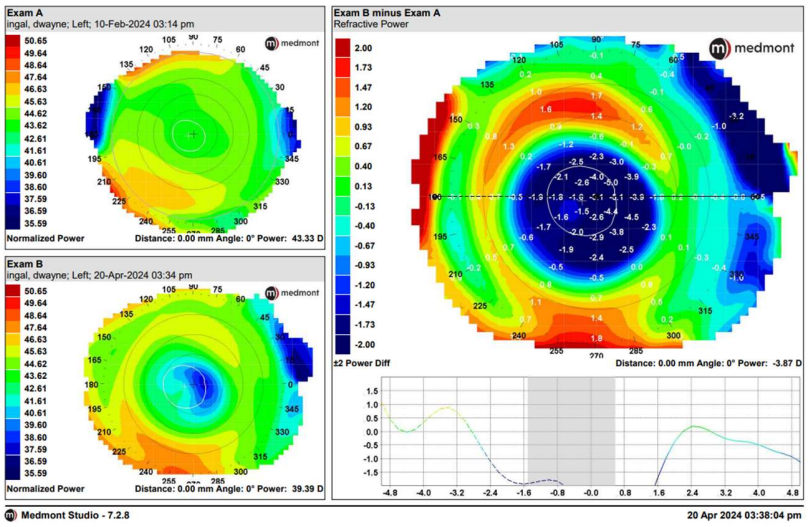
CORNEAL TOPOGRAPHY

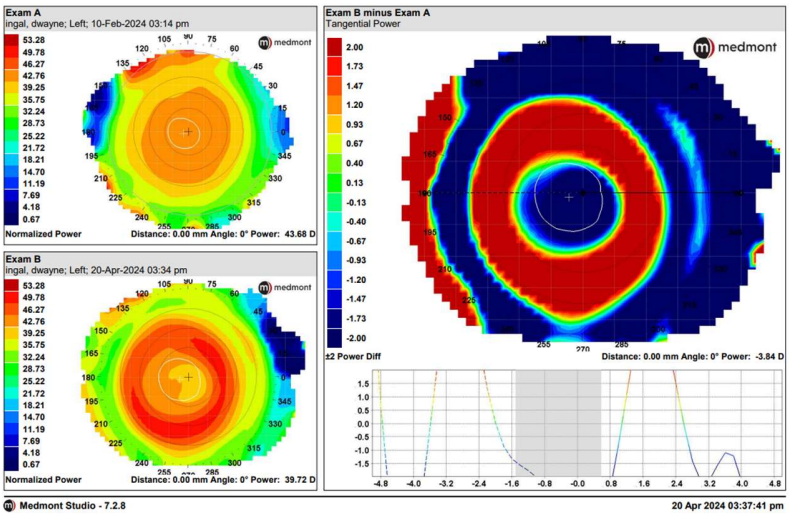
Corneal Topography on the right eye shows that a -2.65D was flattened, and a -3.87D flattening on the left eye.

Tangential Map shows a very good centration of the orthokeratology lens design for both eyes.


Exam A
ingal, dwayne; Right; 10-Feb-2024 03:06 pm
Normalized Power
Distance: 0.00 mm Angle: 0° Power: 42.87 D
Exam B
ingal, dwayne; Right; 20-Apr-2024 03:33 pm
Normalized Power
Distance: 0.00 mm Angle: 0° Power: 40.22 D
Exam B minus Exam A
Refractive Power
±2 Power Diff
Distance: 0.00 mm Angle: 0° Power: -2.65 D
Medmont Studio - 7.2.8
20 Apr 2024 03:36:30 pm


Exam A
ingal, dwayne; Right; 10-Feb-2024 03:06 pm
Normalized Power
Distance: 0.00 mm Angle: 0° Power: 43.27 D
Exam B
ingal, dwayne; Right; 20-Apr-2024 03:33 pm
Normalized Power
Distance: 0.00 mm Angle: 0° Power: 40.51 D
Exam B minus Exam A
Tangential Power
±2 Power Diff
Distance: 0.00 mm Angle: 0° Power: -2.76 D
Medmont Studio - 7.2.8
20 Apr 2024 03:36:59 pm

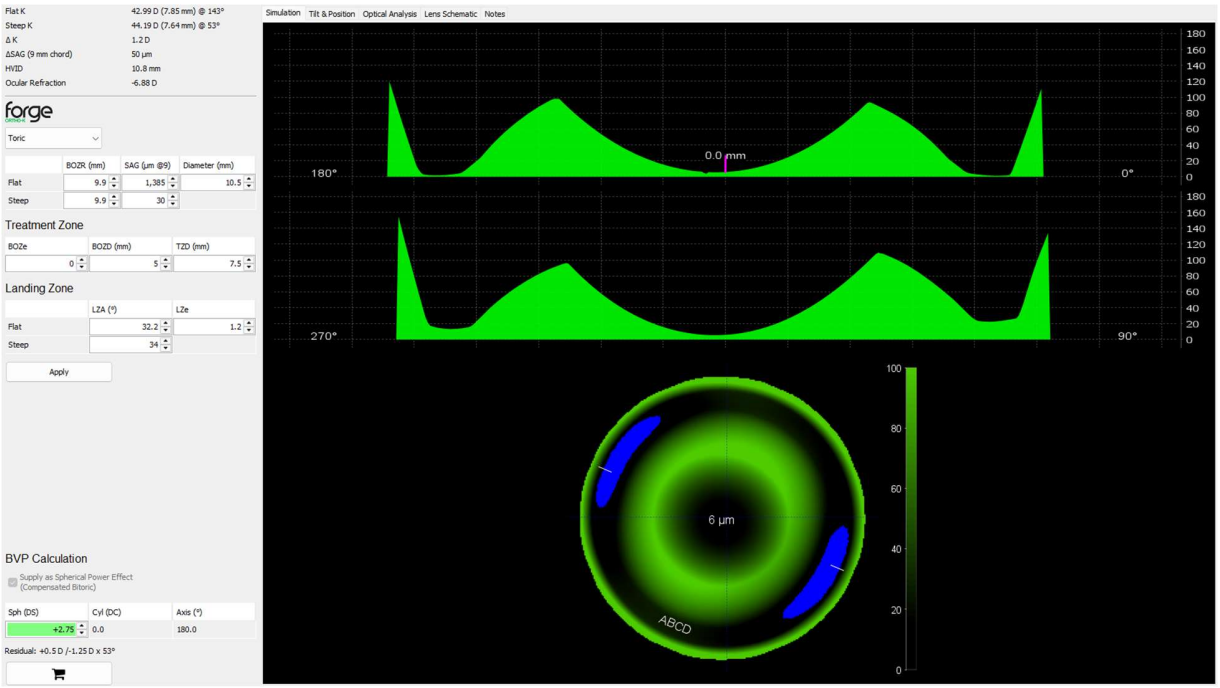




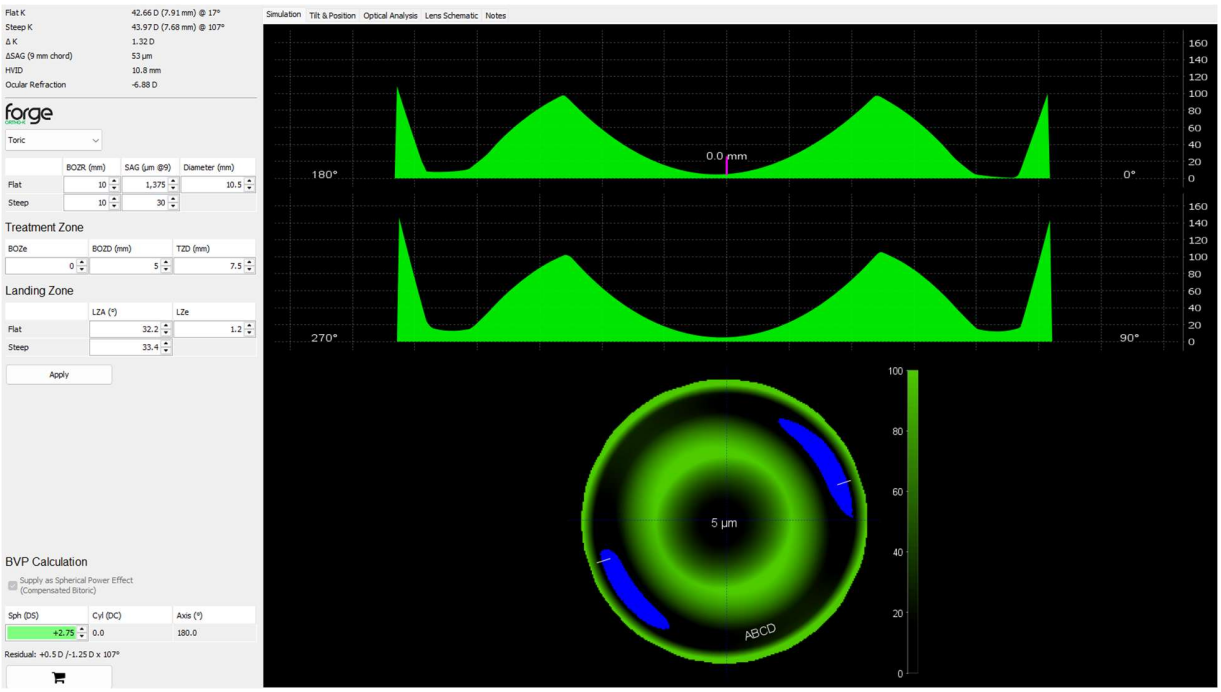
REDESIGNING THE LENS (LENS #2)

A new lens will be designed to further improve fit. Fit change is the Base Curve of the right eye. The right eye will be further flattened to enhance the Corneal flattening. The Lens diameter will be reduced to 10.5mm due to the lens edge being very close to the corneal limbus. This is backed by the HVID that was acquired using the Medmont Corneal Topographer. Treatment Zone diameter is reduced to increase the width of the landing zone area, for a more stable fit.

OD


Flat K 42.99 D (7.85 mm) @ 143°
Steep K 44.19 D (7.64 mm) @ 53°
Δ K 1.2 D
ΔSAG (9 mm chord) 50 µm
HVID 10.8 mm
Ocular Refraction -6.88 D
forge
Toric
BOZR (mm) SAG (µm @9) Diameter (mm)
Flat 9.9 1,385 10.5
Steep 9.9 30
Treatment Zone
BOZe BOZD (mm) TZD (mm)
0 5 7.5
Landing Zone
LZA (°) LZe
Flat 32.2 1.2
Steep 34
Apply
BVP Calculation
Supply as Spherical Power Effect (Compensated Bitoric)
Sph (DS) Cyl (DC) Axis (°)
+2.75 0.0 180.0
Residual: +0.5 D /-1.25 D x 53°
Simulation Tilt & Position Optical Analysis Lens Schematic Notes
0.0 mm
180°
0°
270°
90°
6 µm
ABCD

OS


Flat K 42.66 D (7.91 mm) @ 17°
Steep K 43.97 D (7.68 mm) @ 107°
Δ K 1.32 D
ΔSAG (9 mm chord) 53 µm
HVID 10.8 mm
Ocular Refraction -6.88 D
forge
Toric
BOZR (mm) SAG (µm @9) Diameter (mm)
Flat 10 1,375 10.5
Steep 10 30
Treatment Zone
BOZe BOZD (mm) TZD (mm)
0 5 7.5
Landing Zone
LZA (°) LZe
Flat 32.2 1.2
Steep 33.4
Apply
BVP Calculation
Supply as Spherical Power Effect (Compensated Bitoric)
Sph (DS) Cyl (DC) Axis (°)
+2.75 0.0 180.0
Residual: +0.5 D /-1.25 D x 107°
Simulation Tilt & Position Optical Analysis Lens Schematic Notes
0.0 mm
180°
0°
270°
90°
5 µm
ABCD

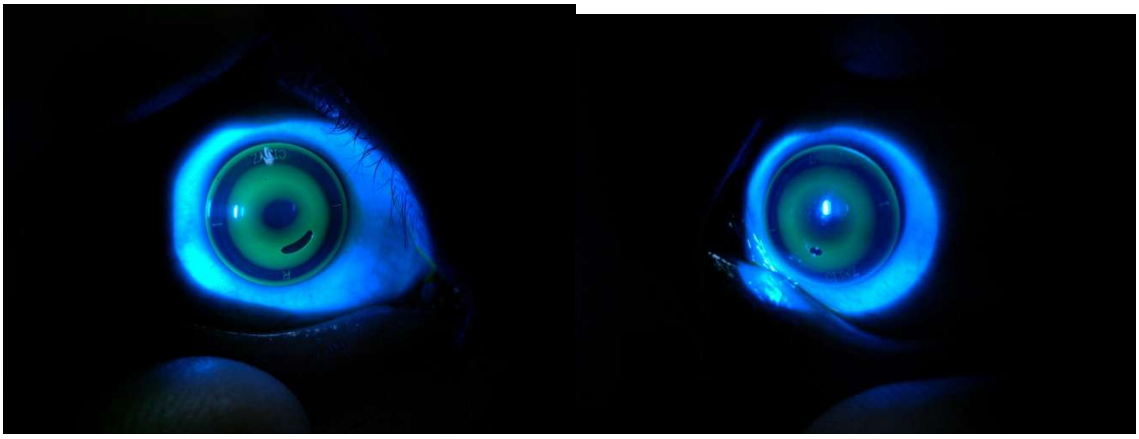
JUNE 5, 2024: FOLLOW UP AND DISPENSING OF 2ND LENS.

New parameters

	OD	**OS**
BOZR flat	9.9mm to 10mm	9.9mm
BOZR steep	9.9mm to 10mm	9.9mm
Lens Diameter (mm)	10.5 previously 10.8	10.5 previously 10.8
Sag microns @ 9mm Flat	1375	1385
Sag microns @ 9mm Steep	30	30
Back Optic Zone Diameter (mm)	5mm	5
Treatment Zone Diameter (mm)	7.5 from 7.8	7.5 from 7.8
Landing Zone Angle FLAT	32.2 from 32.6	32.2 from 32.6
Landing Zone Angle Steep	33.4 from 34	34 from 33.6

Landing Zone eccentricity	1	1.2 from 1s

Slit lamp Biomicroscope



Visual Acuity while using a -7.00DSph Lens

OD: 20/60

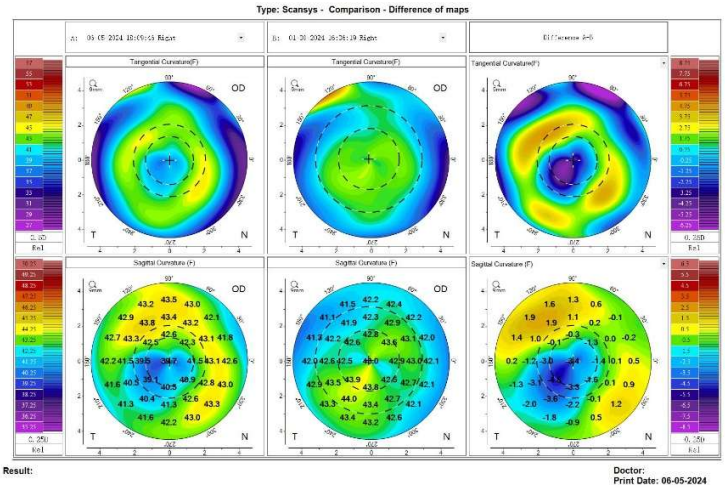
OS: 20/60

Refraction while using the Orthokeratology Lenses:

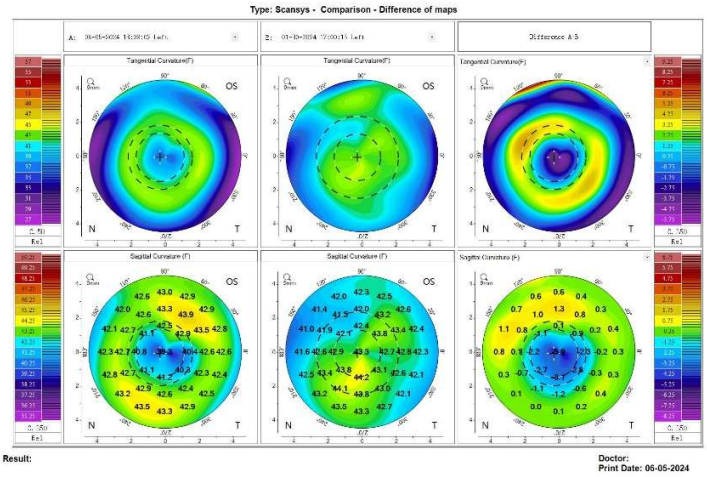
OD: -6.50DSph VA: 20/60

OS: -6.50DSph VA: 20/60

OD



OS



JULY 3, 2024, FOLLOW UP

Visual Acuity with the -7.00 Lens Eyeglass:

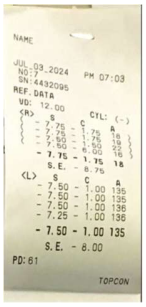
OD 20/60

OS 20/60

Autorefractometer with the Orthokeratology Lens:

OD -7.50 / -1.75 x 20

OS -7.50 / -1.00 x 135



Refraction with the Orthokeratology Lens

OD -7.50 VA 20/60

OS -7.50 VA 20/60

IMPRESSION

No Topography was done.

PLAN

Follow up after 1-month to check the Corneal Topography, as well as the refraction without lens.

AUGUST 3, 2024

Visual Acuity while using the -7.00DSph Eyeglasses

OD 20/60

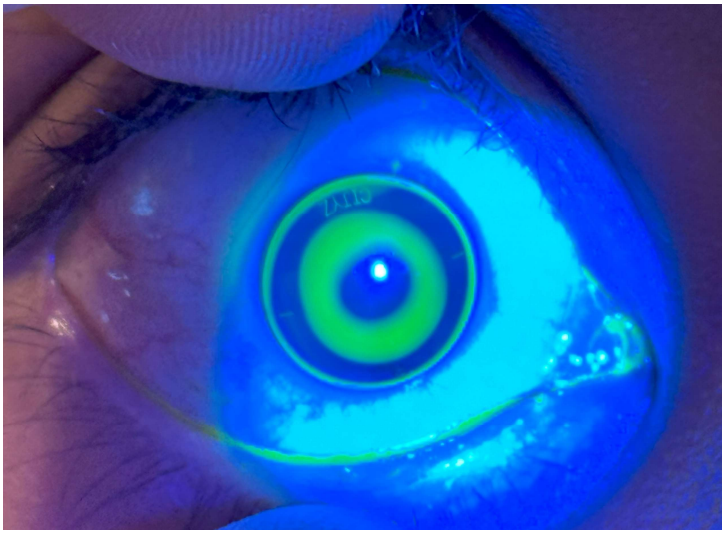
OS 20/60

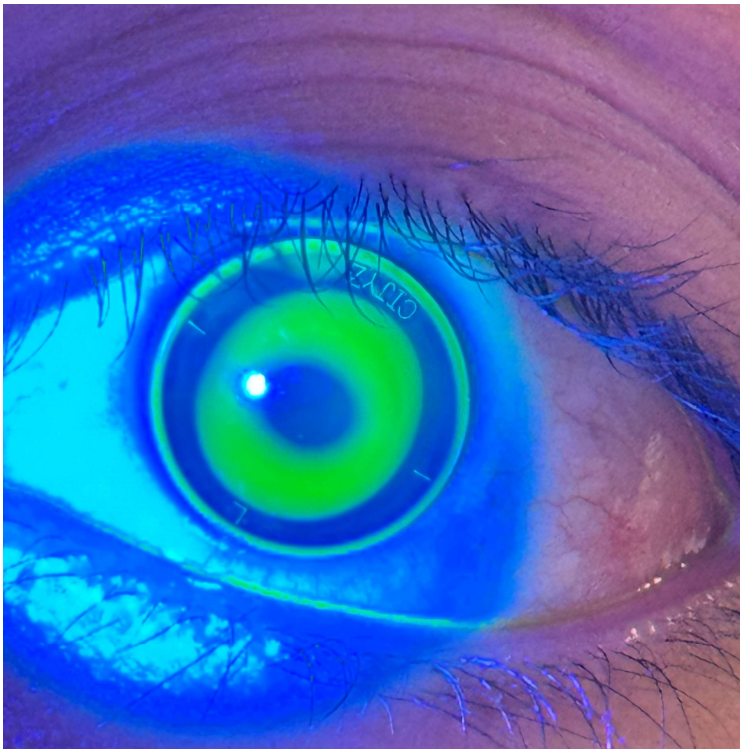
Refraction without Orthokeratology Lens

OD -8.75 / -2.00 x 40 20/60

OS -10.00 / -2.00 x 35 20/60

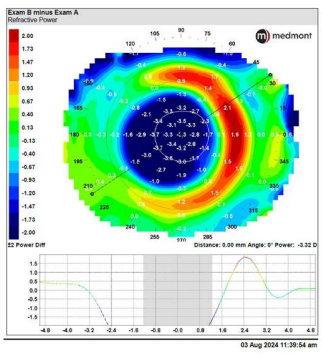
SLIT lamp

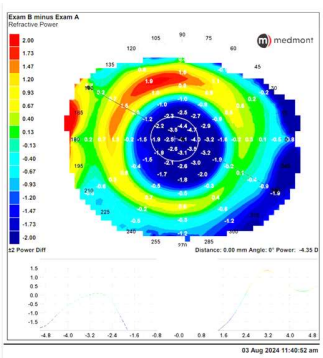


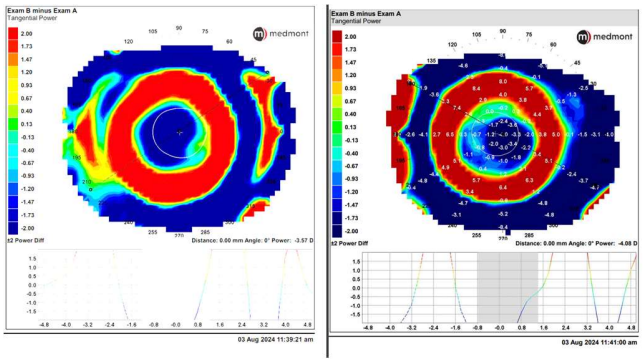


CORNEAL TOPOGRAPHY

A corneal flattening of 3.32D was observed, and the left eye produced a 4.35D flattening. Tangential maps for both eyes show a well-centered design.



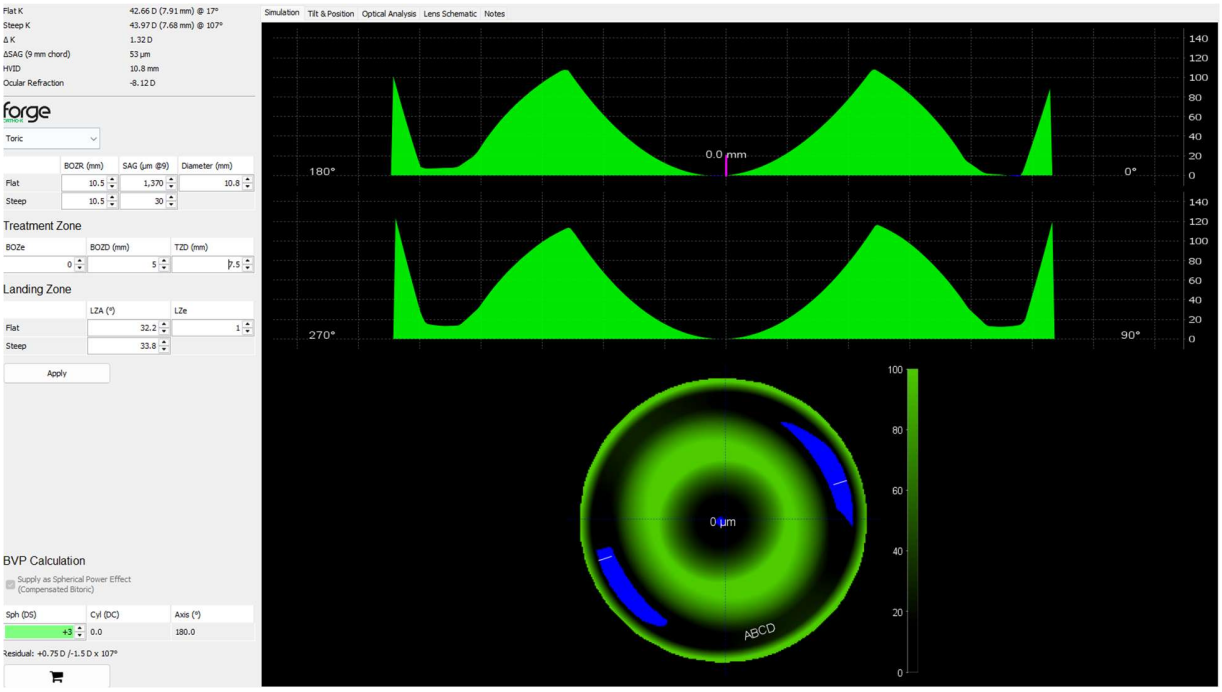




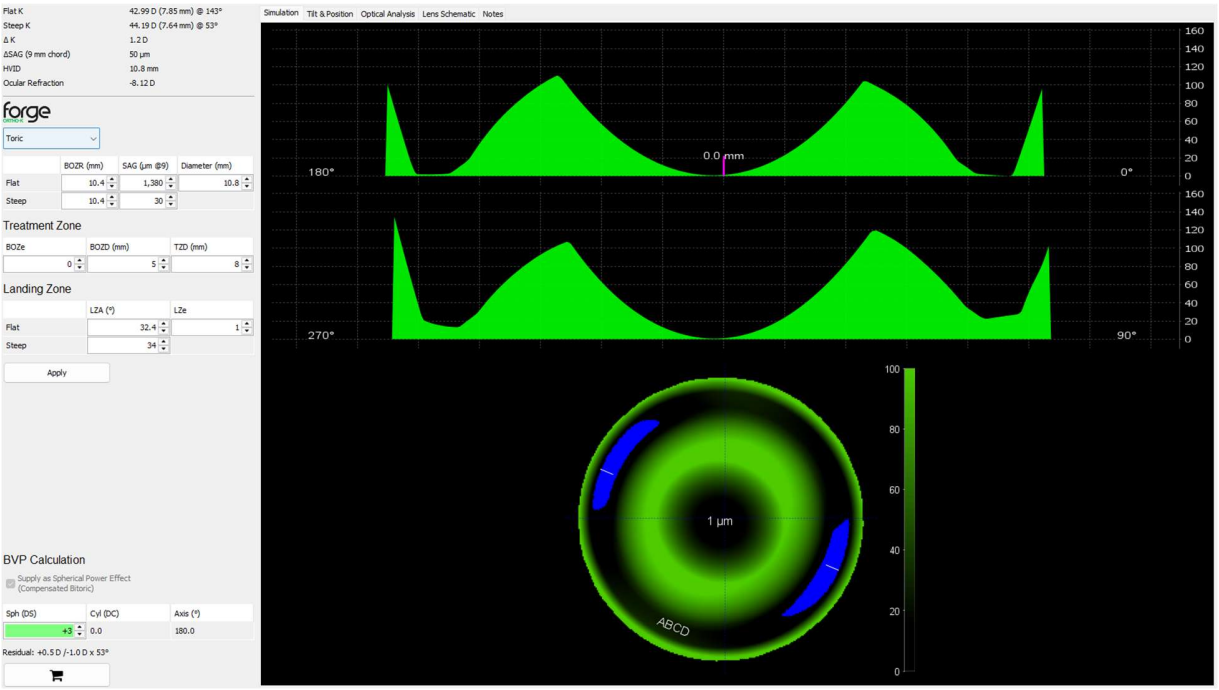
PLAN:

The clinician will reorder a new lens. Changes will be made to the BOZR to increase the flattening effect of the orthokeratology lens. Diameter was only changed into 10.8mm for both eyes to improve the fit of the lens. Sag height of the lens was reduced by 5 microns each eye to improve the flattening of the orthokeratology lens.

OD



OS



SEPTEMBER 6, 2024, DISPENSING 3RD LENS.

	OD	**OS**
BOZR flat	10.5mm from 10mm	10.4mm
BOZR steep	10.5 from 10mm	10.4mm
Lens Diameter (mm)	10.8 from 10.5	10.8 from 10.5

Sag microns @ 9mm Flat	1370 from 1375	1380 from 1385
Sag microns @ 9mm Steep	30	30
Back Optic Zone Diameter (mm)	5mm	5
Treatment Zone Diameter (mm)	7.5	7.5
Landing Zone Angle FLAT	32.2	32.4 from 32.2
Landing Zone Angle Steep	33.8 from 33.4	34
Landing Zone eccentricity	1	1 from 1.2

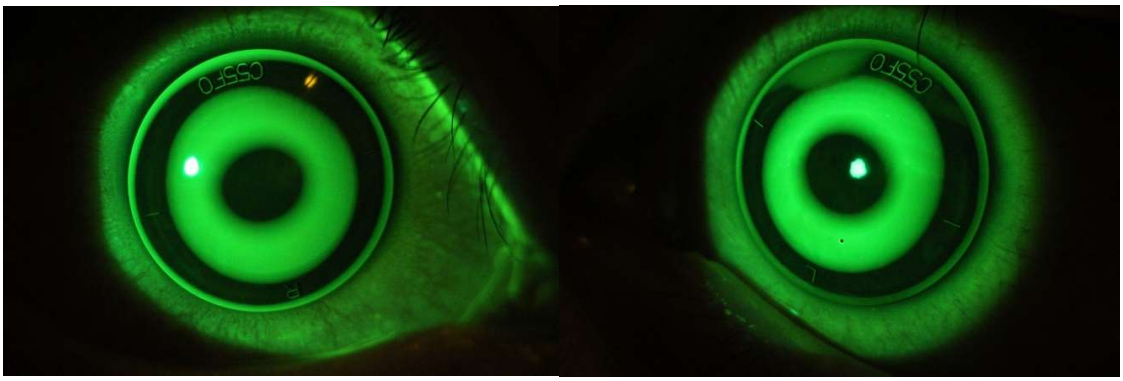
REFRACTION WITH THE LENS OF NEW ORTHOKERATOLOGY LENS:

OD: -5.75DSph **20/60**

OS: -5.50 / -0.75 x 125 **20/60**

Refraction with Orthokeratology Lenses OFF

		Visual acuity
OD	**-6.00DSph**	**20/60**
OS	**-6.00DSph**	**20/60**



SEPTEMBER 21, 2024: FOLLOW UP

Refraction with Orthokeratology Lenses on		
		Visual acuity
OD	**-6.00DSph**	**20/60**
OS	**-6.00DSph**	**20/60**

Refraction WITHOUT Orthokeratology Lenses on		
		Visual acuity
OD	**-6.00DSph**	**20/60**
OS	**-6.00DSph**	**20/60**

IMPRESSION

The patient tends to see best when putting a -6.00DSph lens on right eye and left eye.

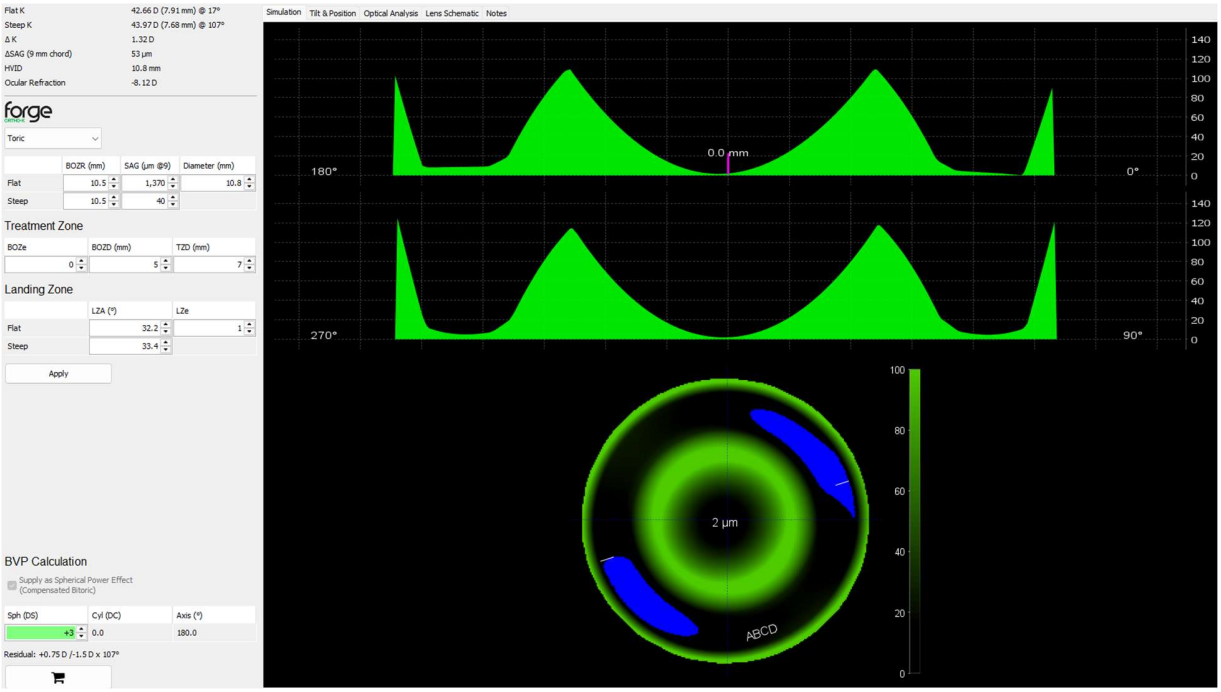
PLAN

A -6.00DSph Lens will be dispense and will replace the previous -7.00DSph lens of the patient.

APRIL 6, 2025

Unfortunately, the patient came to the clinic due to a damaged Orthokeratology lens in his right eye, and a new Orthokeratology lens will be ordered for the right.

APRIL 25, 2025: New LENS



New Lens Parameters		
	OD	**OS**
BOZR	**10.50mm**	
Sag @9mm	**1370 microns**	
Delta Sag	**40 microns**	
Landing Zone Angle	**32.2 degrees**	

Landing Zone Angle	**33.4**	
Back Optic Zone Diameter	**mm**	
Treatment Zone Diameter	**mm**	

Autorefractometry of New Orthokeratology Lens		
OD	**-6.75DSph / -.50 x 25**	
OS	**Only right eye was replaced**	

OPTICAL BIOMETRY

There have been 3 Optical Biometry that has been recorded for this patient.

Date	**Axial Length in millimeter**	
January 24 2024	28.82mm	29.16mm
September 2 2024	28.89mm	29.23mm

April 25 2025	28.95mm	29.29mm

DISCUSSION

This patient presents a 14-year-old boy with a high myopia in both eyes. Specifically, Myopia of -14.00DSph with -1.25Dcyl x 45 and left eye -14.00DSph with a -1.50DCyl, both done under cycloplegia. Using an optical biometer, the clinician was able to get 28.82mm for the right eye, and a 29.16mm for the left, which are well above the typical range for someone who is 14 years old.

The patient does not present any family history of myopia, and the patient's lifestyle play a major role in the patient's risk profile, particularly, the patient's hobby of unregulated hours on mobile gaming and social media, and to add, the patient has minimal to no break during each gadget sessions.

The patient plays basketball, which somehow provides him some outdoor exposure, although this is not enough to counter the amount of screen time.

The patient's corneal tomography shows a normal central corneal thickness of 564 microns and 562 microns for the right and left eye, as well as no signs of corneal ectasia for both eyes, giving the clinician a go-signal to do orthokeratology. However, during the dilated retinal examination, it was observed that the patient has severe tessellation, and along with it, the resident Ophthalmologist had to diagnose lattice degeneration in both eyes. (Ohno-Matsui K., 2021) (Flitcroft, 2019)

IMPORTANCE OF FUNDUS ASSESSMENT AND IMMEDIATE MANAGEMENT

In high myopia, a thorough retinal evaluation is important because of the higher chance of locating peripheral degenerations like lattice. Due to the changes caused by the extreme axial elongation, they could lead to retinal tears, and in turn, can further complicate into retinal detachments, which usually does not have any early warning symptoms, like the patient in this case report. (J.B, 2021)

The patient was referred to an ophthalmologist and undergone laser retinopexy (photocoagulation) to strengthen certain part of the retina. Photocoagulation works by creating a ring of tiny burns around the lattice degeneration, and thus forms scar tissues that helps with reinforcing the already weak retina. Laser retinopexy reduces the risk of retinal breaks and detachment that may occur in the future. Performing the procedure will help us focus more on the orthokeratology lens fitting and management of myopia progression and the patient's vision, and less worry about the patient's lens handling or eye rubbing that may trigger retinal tear. (C.P, 2015)

This step is an important reminder that in high myopia management, stabilizing the condition of the retina is as important as controlling the axial elongation and the refractive error. (Ohno-Matsui K., 2021)

JUSTIFICATION F OR ORTHOKERATOLOGY AND SINGLE VISION SPECTACLES

In this case, the patient's prescription was above the corrected limit for myopia control glasses that were considered, including MiyoSmart and Myocare, where these lenses maxed out with the total power of 10.00DSph. The clinician decided that we needed to try a different strategy.

The clinician decided to do a power split, approach: where orthokeratology lenses will correct a -7.00DSph of the prescription of the patient while they are asleep, and this is combined with a single vision glass for the remaining myopia during the day. With this method, the patient will be able to avoid wearing an extremely thick glasses while still benefitting from the proven myopia control effects of the Orthokeratology lens' peripheral Myopic defocus.

There has been evidence that shows combining orthokeratology and spectacle lenses slows axial elongation more than spectacle single vision lenses alone, when dealing with high myopia. This approach also reduces the need for strong daytime contact lenses, which can cause discomfort and increase the risk of hypoxia if worn for prolonged periods of time. (Zhao, 2022)

His corneal measurement and shape were suitable for Orthokeratology, making the plan both safe and practical. (Gifford, 2021) (J.B, 2021)

ORTHOKERATOLOGY JOURNEY

Managing the extreme high myopia with the orthokeratology management requires multiple design adjustments due to the nature of flattening the corneal epithelium at a high amount. (Cho, 2019)

The first lens I fitted was a 10.8mm diameter lens with a back optic zone radius (BOZR) of 9.9mm. the lens achieved a good centration; however, we were not able to achieve the -7.00DSph target. The flattening that was done were -2.65DSph on the right eye and -3.87DSph on the left eye.

The next lens ordered had its lens adjusted. The notable adjustment done was flattening the BOZR of the right lens to into 10.00. diameter was reduced as well to 10.50mm to prevent the edge of the lens from reaching the limbal area and decreased the treatment zone diameter from 7.8mm to 7.5mm. This will increase the alignment zone width and thus strengthen the flattening of the orthokeratology lens.

During the third lens design, the clinician further adjusted the BOZR to increase the flattening effect. The new BOZR for the 3rd lens was 10.5mm and 10.4mm for the right and left, the diameter was returned to 10.8mm hoping to get a better centration, and slightly reduced the sagittal height for both eyes, hoping to make the flattening more uniform on the treatment zone.

All the changes were based on the results being showed on the Corneal Topographer and Corneal Tomographer, by utilizing the difference maps of refractive maps and tangential maps. Other factors that were being considered were the lens behavior, the refraction while the patient is using the lenses, and refraction without using the lenses. (Gifford, 2021)

Although we couldn't achieve the target power of -7.00DSph in the patient's orthokeratology lenses, the patient is enjoying the -6.00DSph lens given to him, with the best corrected Visual Acuity of 20/60, which was the better than his dry refraction during the initial visit.

Over the course of the treatment, the axial length growth of this patient was limited to about +0.10mm/year, meeting the target for successful myopia control. (Bullimore, 2021)

OPTICAL BIOMETRY

Three optical biometry readings were acquired for this patient, using a Lenstar Optical Biometer:

- January 2024 – OD 28.82mm OS 29.17mm
- September 2024 – Od 28.89mm and OS 29.23mm
- April 2025 OD 28.95 and OS 29.29mm

This worked out an average growth rate of +0.10mm/year. (Bullimore, 2021)

Biometry is a reliable way to track myopia progression in Orthokeratology cases, because the corneal reshaping treatment tends to mask refractive changes in the eye. By keeping the axial growth rate low, we somehow reduce the patient's future risk for severe retinal complications, which is highly important given the patient's history of lattice degeneration. (Tideman, 2018) (Flitcroft, 2019)

CONCLUSION

This case report highlights the importance of combining both retinal assessment and management with Myopia control. The discovery of the lattice degeneration led to timely photocoagulation of the patient, which reduced the risk of retinal detachment and made the management of Orthokeratology safer for the patient. Using a power-split approach with the Orthokeratology lens and a Single Vision spectacle lens, the patient was given a functional vision while at the same time, controlling the axial elongation of the patient. Regular axial length monitoring confirmed the slow progression of the patient's axial length.

The lenses were redesigned twice to further improve the fit, as well as the flattening of the cornea and further improve results. By protecting the retina first, and applying an evidence-based myopia control plan, we made sure that we safeguarded the patient's vision for the long term.

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