



A Case of a Glaucoma

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Consultant Ophthalmologist
OCL Vision



History

- 51 yr old male
- Referral from optometrist: RE cataract drop in vision (6/12 onset) plus high IOPs (RE 30, LE 28mmHg)
- Mother has glaucoma
- Trauma to RE 10 years ago – golf ball
- No meds

Distance VA			
Right eye	Glasses	Pinhole	Left eye
	0.74	0.40	Glasses -0.08

Near VA			
Right eye	Near gls	all @ 40 cm	Left eye
	N48		Near gls N4

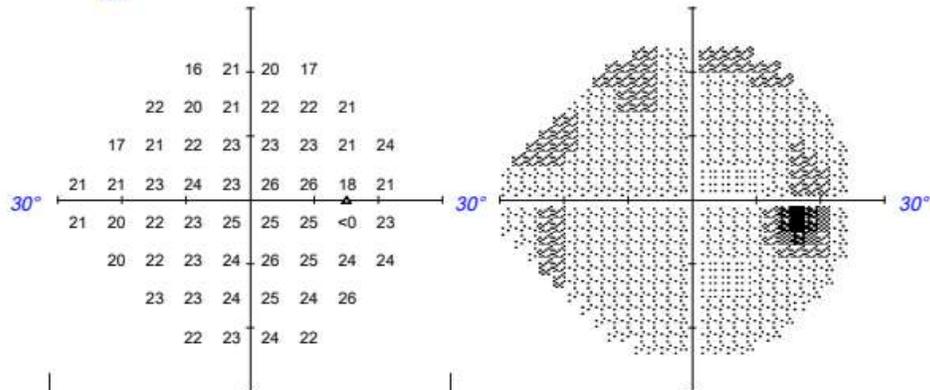
		R	IOP	L
iCare	At 11:43	38		31
Goldmann	At 12:25	29		24

Discuss the difference in readings icare vs goldmann

Fixation Monitor: Gaze/Blind Spot
 Fixation Target: Central
 Fixation Losses: 0/11
 False POS Errors: 0%
 False NEG Errors: 6%
 Test Duration: 03:15
 Fovea: Off

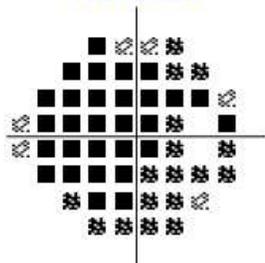
Stimulus: Ill, White
 Background: 31.5 asb
 Strategy: SITA Fast
 Pupil Diameter: 4.6 mm *
 Visual Acuity: Rx: -0.75 DS

Date: Aug 15, 2025
 Time: 11:20 AM
 Age: 50



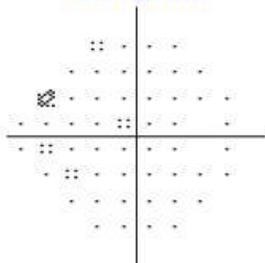
-12	-7	-8	-10				
-8	-10	-9	-8	-7	-8		
-12	-10	-9	-9	-9	-10	-6	
-7	-9	-9	-10	-7	-6	-9	
-7	-10	-10	-9	-9	-8	-8	-7
-10	-10	-10	-9	-7	-7	-8	-7
-7	-8	-8	-6	-7	-5		
-7	-7	-6	-8				

Total Deviation



-5	0	-1	-3				
-1	-3	-2	-1	-1	-2		
-6	-3	-3	-2	-2	-3	1	
0	-3	-2	-3	0	0	-3	
0	-4	-3	-3	-2	-1	-1	-1
-3	-3	-3	-2	0	-1	-1	0
-1	-1	-1	0	0	2		
-1	0	0	-2				

Pattern Deviation



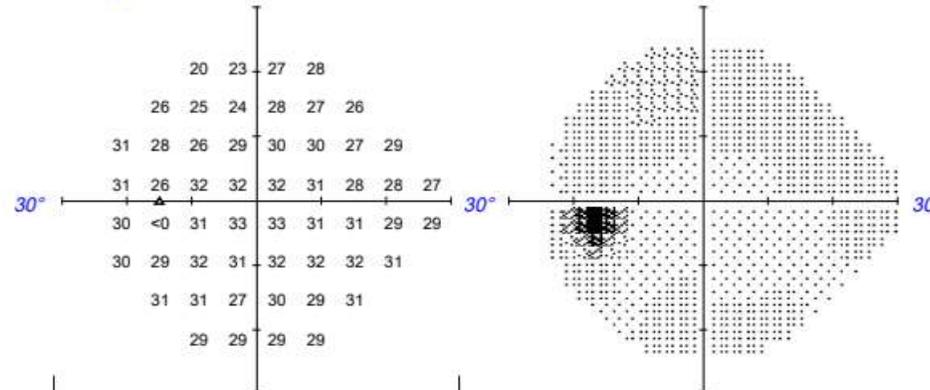
GHT: General Reduction of Sensitivity
 VFI: 96%
 MD24-2: -8.42 dB P < 0.5%
 PSD24-2: 1.48 dB

:: P < 5%
 ☒ P < 2%
 ☒ P < 1%
 ■ P < 0.5%

Fixation Monitor: Gaze/Blind Spot
 Fixation Target: Central
 Fixation Losses: 1/10
 False POS Errors: 0%
 False NEG Errors: 0%
 Test Duration: 02:33
 Fovea: Off

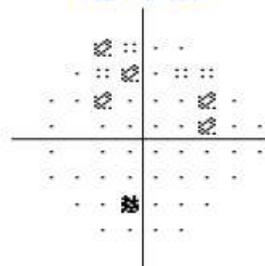
Stimulus: Ill, White
 Background: 31.5 asb
 Strategy: SITA Fast
 Pupil Diameter: 5.2 mm *
 Visual Acuity: Rx: +2.50 DS

Date: Aug 15, 2025
 Time: 11:15 AM
 Age: 50



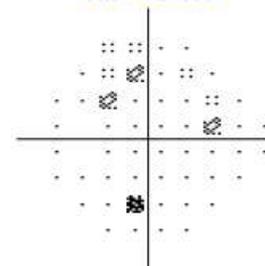
-7	-5	-1	0				
-3	-4	-6	-2	-4	-3		
2	-3	-5	-3	-2	-2	-4	-1
1	0	-1	-1	-2	-4	-2	-1
-1	-1	0	0	-2	-1	-2	1
-1	-2	0	-2	-1	0	0	1
0	0	-5	-2	-3	0		
-1	-1	-1	-1				

Total Deviation



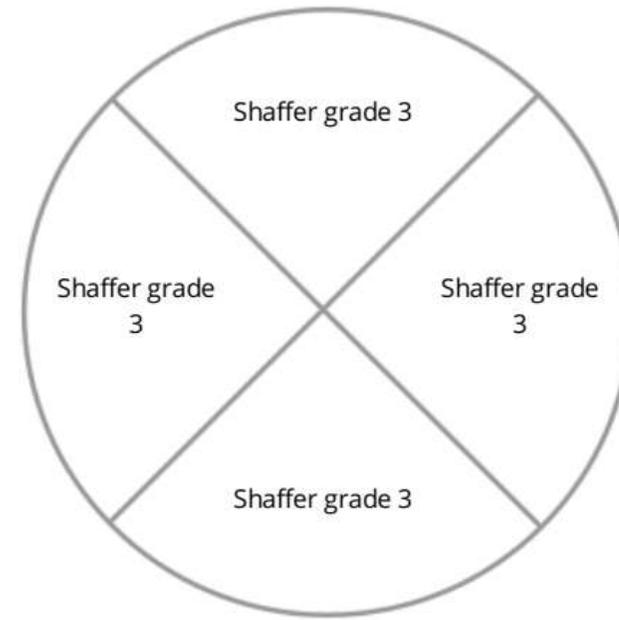
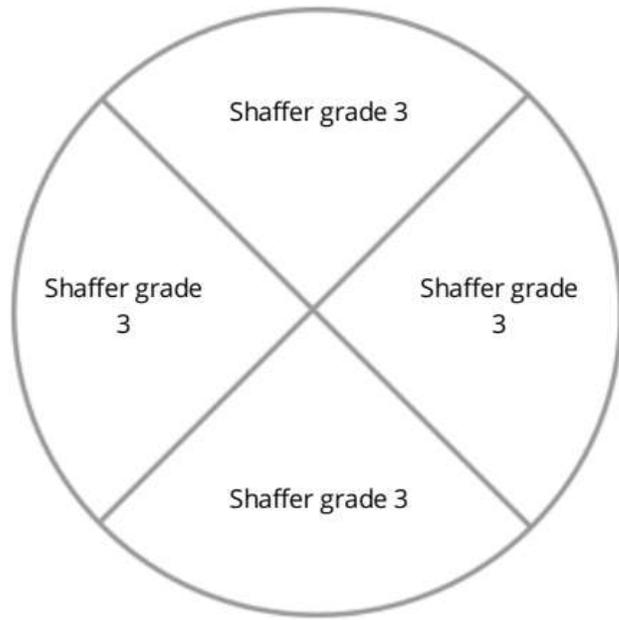
-7	-5	-1	0				
-3	-4	-6	-2	-4	-3		
2	-3	-5	-3	-2	-2	-4	-1
0	0	-1	-1	-2	-4	-2	-1
-1	-1	0	-1	-2	-1	-2	1
-1	-2	0	-2	-1	0	0	1
0	0	-5	-2	-3	0		
-1	-2	-1	-1				

Pattern Deviation



GHT: Within Normal Limits
 VFI: 98%
 MD24-2: -1.62 dB P < 10%
 PSD24-2: 1.72 dB P < 10%

:: P < 5%
 ☒ P < 2%
 ☒ P < 1%
 ■ P < 0.5%



no RAPD
 dilating drops applied
 1+ nuclear, 2+ cortical cataract
 cup-to-disc ratio: 0.70

Pupil / iris

no RAPD
 dilating drops applied

Lens

non-significant cataract

Optic disc

cup-to-disc ratio: 0.50

Plan

Medication	Added	Latanoprost MONOPOST	50 micrograms/ml 0.2 ml unit dose eye drops preservative free - 1 drop - once a day at night - indefinitely	Both Eyes	15-Aug-2025	Indefinitely
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Comments We discussed today the eye pressure especially in the right eye is too high. The OCT scan did show some optic nerve changes but the view was limited by the cataract in the right eye. We did discuss the cataract and raised pressure in the right eye may have been exacerbated by a trauma you sustained with a golf ball in the right eye 10 years ago. The lens appeared stable when dilated today in both eyes. I explained the eye pressure needs to be lowered first before we consider cataract surgery. I have recommended you start on drops today and we will recheck the eye pressure in 4-6 weeks' time. If the pressure is stable, we can then plan for the right eye cataract surgery, and use premium monofocal lens aiming to give distance and intermediate vision and then you would require glasses for reading. I did explain this may then unmask an established visual field defect in the right eye. If you have any other queries, please don't hesitate to contact me.

IOP check 1/12 post start of Latanoprost BE

		R	IOP	L
iCare	At 11:25	23		19
Goldmann	At 11:52	16		16

Plan

Comments

The eye pressure is better in both eyes today. We discussed the right eye cataract and agreed to go ahead with right eye cataract surgery and lens implant. The lens would be a premium monofocal lens (the standard lens now used in NHS practices) aiming to provide clear distance and intermediate vision and then you would require glasses for reading. Due to the history of trauma to the right eye, I would recommend we carry out the surgery in our New Cavendish Street centre, and I will request for one of my vitreoretinal colleagues to be on standby should we run into any unexpected complication due to lens instability. I have emailed my PA with the above and asked her to contact you with available dates in October. I have asked you to continue with the drops to both eyes to help control the eye pressure and we can reassess the need for drops after the surgery. If you have any other queries in the meantime, please don't hesitate to contact me.

2 weeks Post Op

Distance VA

Right eye

Unaided
-0.08

Unaided
0.02

Left eye

Binocular
Unaided
-0.10

Near VA

Right eye

Unaided
N6 all @ 40 cm

Unaided
N4

Left eye

Binocular
Unaided
N4 @ 40 cm

		R	IOP	L
iCare	At 12:15	26		24
Goldmann	At 12:34	21		18

Comments

I am pleased the right eye has done so well since your recent cataract surgery. It is continuing to heal as you are still on the post operative drop. You have not been using your glaucoma drops and for now the pressure seems to be fine. We agreed to catch up on 12th December to recheck the pressure and see if you still need the drops or not. If you have any other queries, please don't hesitate to contact me.

2 Months Post Op

Distance VA

Right eye

Unaided
-0.10

Unaided
0.10

Pinhole
-0.08

Left eye

Near VA

Right eye

Near gls
N8

Near gls
N4

Left eye

Right eye

(SE: +0.25)
(Dev: +0.25)

+0.75 / -1.00 x 98

Autorefractation

-0.25 / -0.75 x 61

Left eye

(SE: -0.63)

R	IOP	L
20		22
16		19

iCare At 10:51
Goldmann At 11:02



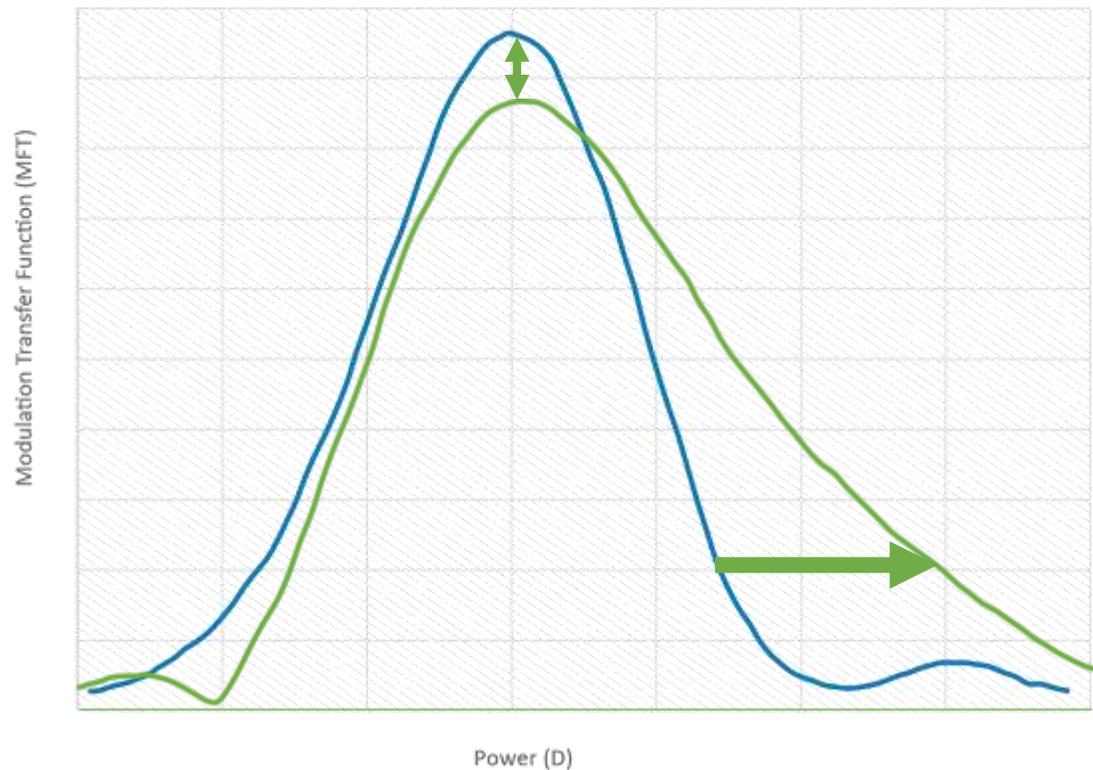
EXTENDED

Range of Vision

Isopure Serenity IOL

MTF = Optical quality of IOL:

- Peak shows better quality
- Width shows range



Compared to a Monofocal IOL, ISOPURE SERENITY:

- Increases depth of focus by approximately **50%**
- With only **12%** decrease in maximum MTF

This is equivalent to approximately **1.0D** of extended depth of focus

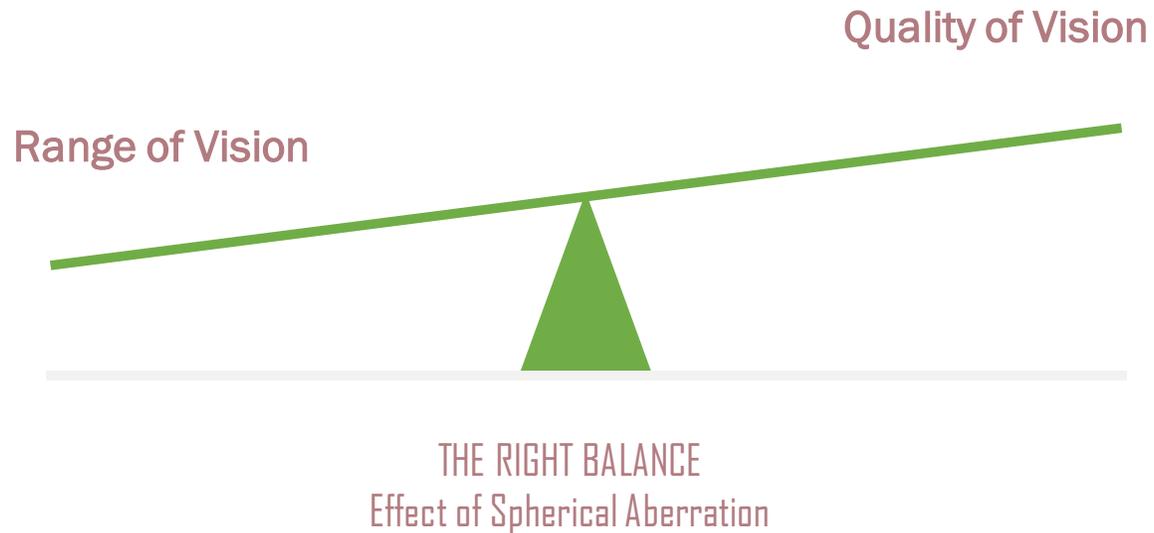
PATIENT OUTCOMES

Clinical studies have repeatedly shown an increased range of vision up to 66cm using ISOPURE optic technology.

- 80% achieve VA 0.1LogMAR at 80cm
- 60% achieve VA 0.1LogMAR at 66cm

Quality of Vision

Like a monofocal IOL, the ISOPURE SERENITY optic uses all the available light energy to extend the range of focus. It does not lose light energy through diffraction like multifocal IOLs, and through this design it maintains contrast sensitivity comparable to a monofocal



Clinical studies have consistently shown that the ISOPURE SERENITY optic maintains comparable contrast sensitivity to a monofocal IOL in both photopic and mesopic conditions

The **unique** double C-loop **POD platform** is specifically designed for the improved stability required by toric IOLs for long-term, accurate astigmatism correction

Glaucoma Discussion Points for GOC Peer Review

1. Could the patient's raised IOP be related to the previous blunt trauma, and how would you investigate possible angle recession?
2. How reliable are IOP readings from Icare compared with Goldmann, and which should guide management if there is a discrepancy?
3. What would be an appropriate target IOP for this patient considering the risk factors (family history and elevated baseline IOP)?
4. If Latanoprost does not achieve adequate pressure reduction, what would be the next step in management?
5. What factors should influence IOL choice in patients with glaucoma or suspected glaucoma?
6. Are enhanced monofocal or EDOF lenses appropriate in glaucoma patients, and what are the potential advantages or concerns?
7. How might reduced contrast sensitivity in glaucoma influence the decision to implant an enhanced monofocal or EDOF IOL rather than a standard monofocal?
8. Could certain IOL optics affect visual field testing or long-term glaucoma monitoring, and should this influence lens selection?
9. In patients with borderline glaucoma or glaucoma suspects, should surgeons be more conservative with range-of-vision or premium IOLs?
10. To what extent can cataract surgery itself reduce IOP, and could this influence glaucoma management in this case?