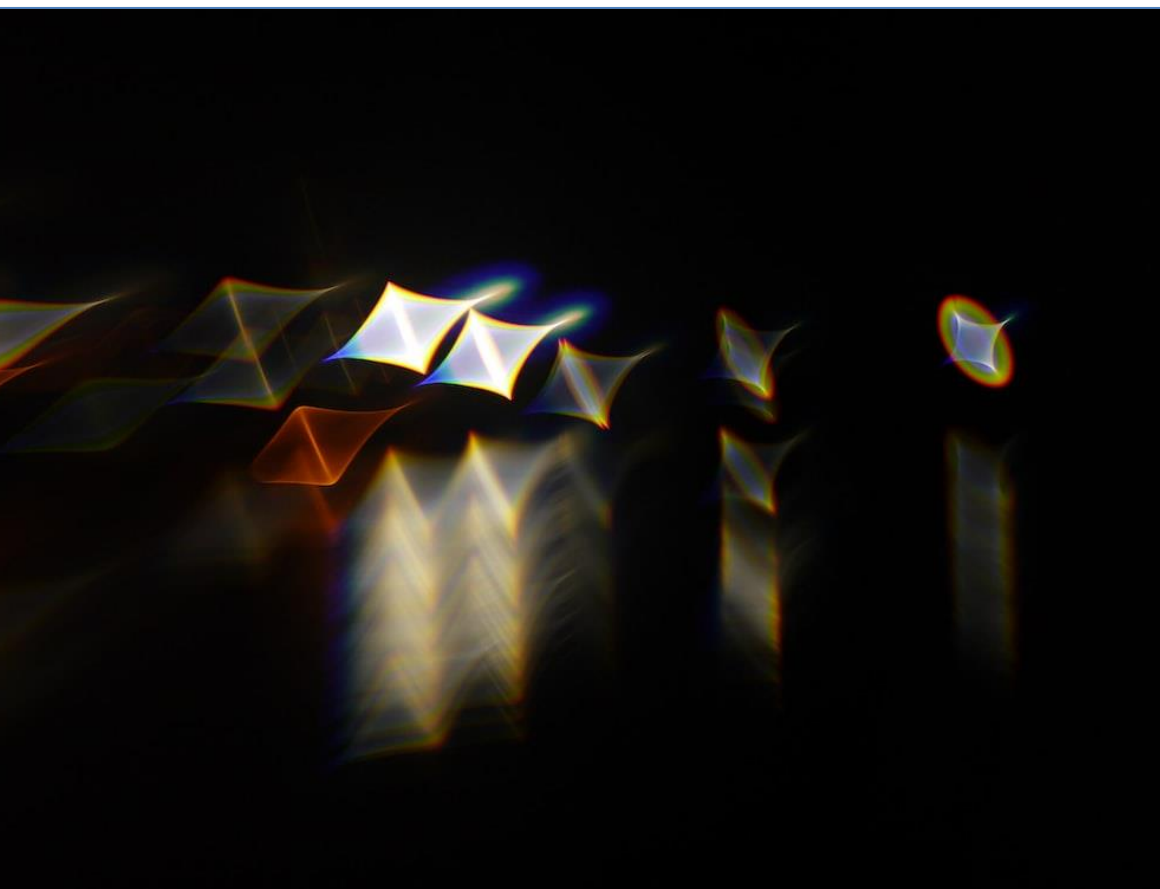


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INTRODUCTION

Two increasingly prevalent ocular conditions worldwide are myopia and presbyopia¹. The optical benefits of rigid gas permeable contact lenses (RGPs) for high, pathological myopes are well-documented. Multifocal gas permeable contact lenses (MFRGPs) can correct a virtually unlimited range of prescriptions along with their presbyopia. However, with the risk of associated pathology and visual experience affecting best-corrected VA, e.g. metamorphopsia², MFRGP fitting in these patients requires special consideration and a deep understanding of patients’ unique visual goals.



High myopia is associated with increased aberrations and poorer quality of vision. Studies have found that a large contributing factor to this is the enlarged globe that accompanies increased axial length². It has also been found that there is a greater distribution of refractive power across the pupil in myopic eyes. The influence of these aberrations are compounded by the potential pathology that can accompany high myopia, including lacquer cracks, choroidal neovascular membranes, and epiretinal membranes, etc..

CASE 1

61-year-old female with pathological myopia complains of blurry vision at all distances in her habitual MFRGPs OU.

Refractive Data and Lens Parameters		
	<u>OD</u>	<u>OS</u>
Manifest Refraction	-10.50 -1.75 x 070	-7.50 -1.50 x 137
BCVA	20/50-3	20/30-2
Lens Company	CooperVision® Blanchard	CooperVision® Blanchard
Design	Reclaim HD™ GP Multifocal	Reclaim HD™ GP Multifocal
BC	8.33	8.33
Distance Power	-8.37 Sph	-7.12 Sph
Diameter	9.40	9.40
Progressive Add	+2.25	+2.75
Anterior Distance Zone	3.00	3.00
Material	Optimum Infinite	Optimum Infinite

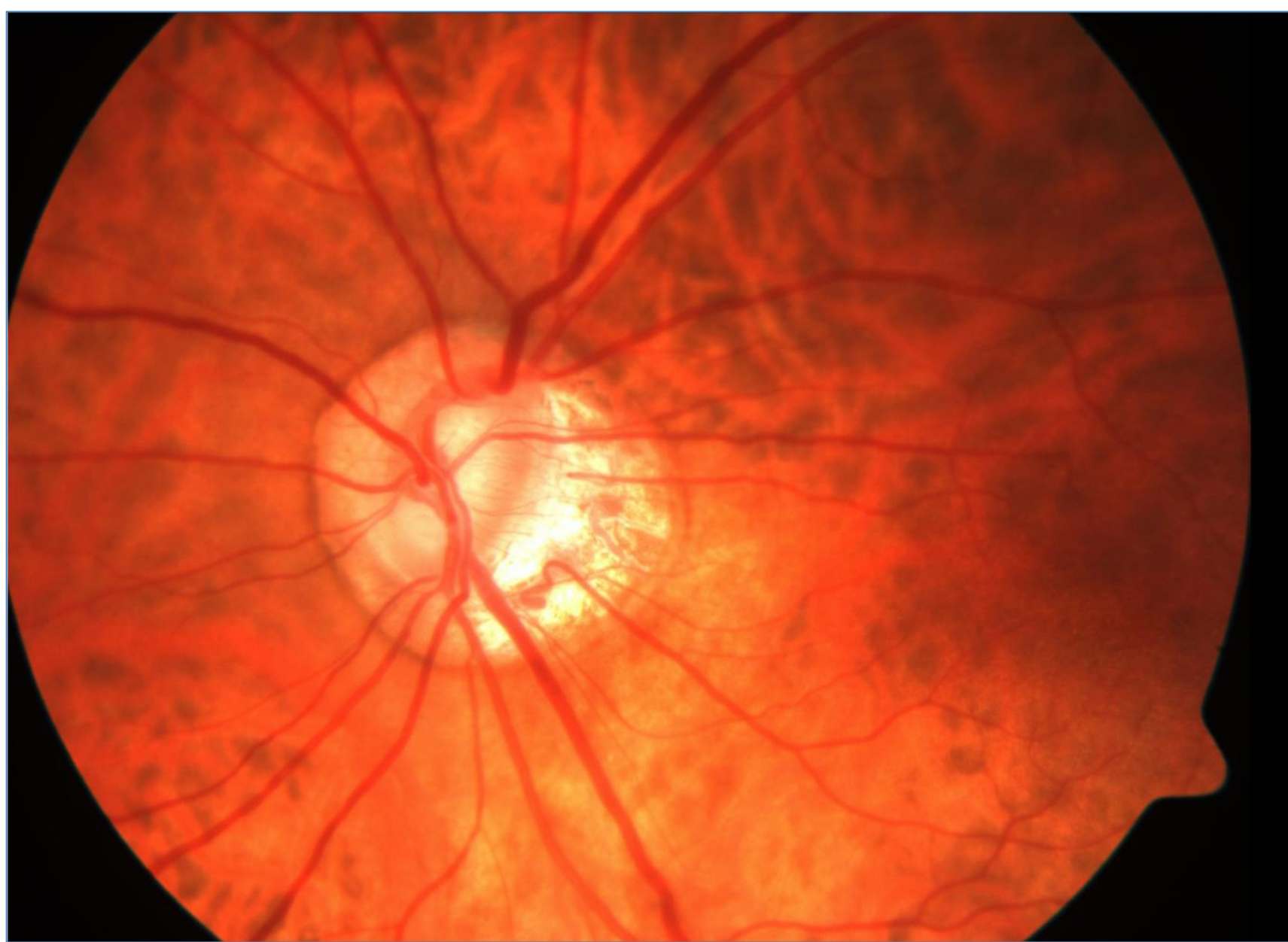
With contact lenses, distance visual acuity was 20/40+2 OU and 20/25 OU at near. An over-refraction of +0.25 OD and -0.25 OS was trialed using loose lenses and finalized helping the patient fulfill her visual demands.

Case 1 Learnings

- **Set expectations** when fitting multifocal contact lenses. Emphasize the importance of flexibility with various working distances.
- **Step out of the exam room** to demonstrate the capabilities of multifocal contact lenses in a more real-life setting. Take the time to listen to your patient’s individual visual needs and demands.

CASE 2

64-year-old male with PM presents with persistent near vision blur in MFRGPs despite numerous prescription adjustments. Distance visual acuity was 20/20- OU and 20/32 OU at near. An over-refraction of +0.75 OD and +1.00 improved near VA to 20/25 OU and improved distance VA subjectively as well. However, this improvement was not appreciated subjectively. Instead, the patient opted to wear single-vision distance RGP’s with reading glasses.



Fundus photo, OS

Refractive Data		
	<u>OD</u>	<u>OS</u>
Manifest Refraction	-13.75 – 1.00 x 150	-12.50 sph
BCVA	20/25	20/25

Final Lens Parameters		
	OD	OS
Brand	Art Optical	Art Optical
Type	Thinsite® 2	Thinsite® 2
BC	7.51	7.51
Distance Power	-10.75 Sph	-10.50 Sph
Diameter	9.70	9.70
Material	Boston® XO2	Boston® XO2

Case 2 Learnings

- **Provide options** to your patients, but **not too many**. Patients may have trouble keeping the pros and cons straight and can become frustrated.
- **Know when it’s time to move on** to an alternative correction method. Multifocal contact lenses require compromise for maximum success.

CASE 3

74-year-old female with PM and a history of successful, single-vision RGP wear OU presents for RGP fitting following cataract extraction OU. Empirical fitting was performed, and first time dispense yielded distance visual acuity of 20/20 OU and 20/20 OU at near. She reported that although her near vision was adequate, her distance vision “felt odd.” The patient was re-educated on the expectations of MFRGPs and soon reported excellent distance and near vision in the MFRGPs with no modifications required after a period of adaptation.

Refractive Data and Lens Parameters		
	<u>OD</u>	<u>OS</u>
Manifest Refraction s/p CE/IOL	-0.25 -1.75 x 120	-1.75 sph
BCVA	20/20-2	20/30-2
Lens Company	CooperVision® Blanchard	CooperVision® Blanchard
Design	Reclaim HD™ GP Multifocal	Reclaim HD™ GP Multifocal
BC	7.35	7.40
Distance Power	-3.50 Sph	-2.50 Sph
Diameter	9.30	9.30
Progressive Add	+3.00	+3.00
Anterior Distance Zone	3.00	3.00
Material	Optimum Comfort	Optimum Comfort

Case 3 Learnings

- **Educate patients** regarding **adaptation** period to multifocal lens wear and that time period is unique to the patient.
- **Happiness is more than 20/20**. Listen to the patient’s complaints and customize your modifications to meet their individual needs.

CONCLUSIONS

With the growing number of presbyopic PMs looking for modalities to improve their near vision, MFRGPs should be considered. Benefits of MF RGP’s include: high oxygen permeability, excellent optics, aberration correction, and cost. The cases above illustrate clinical learnings beyond what is offered fitting guides. Factors that led to success in our clinic included: is demonstrating the capabilities of the lenses outside of the exam room, taking the time to ask how the patient uses their eyes, being aware of other options and knowing when to turn to alternative methods to correct the patient’s presbyopia. For each patient above, different clinical pearls were utilized to achieve patient success.

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