



# A Case of a BRVO

Mr Chien Wong  
Consultant Ophthalmologist  
OCL Vision



# History

- 59 yr old male
- Previous RE episcleritis
- Drop in LE vision past 4 days
- GH – good – no Meds
- No other symptoms

Right eye	Distance VA			Left eye
	Unaided	Unaided	Pinhole	
	6/4	6/18	6/18	

R	IOP	L
10		9

Right eye	Examination	Left eye
no iris neovascularisation	<b>Pupil / iris</b>	no iris neovascularisation
no PVD	<b>Vitreous</b>	no PVD
	<b>Post seg</b>	IT BRVO - active macular oedema No ischaemia (OCT-A) No neovascularisation cotton wool spots exudates intraretinal haemorrhage

# History

Thank you for referring this gentleman with left blurred vision for 3-4 days. He has been trying to stop smoking.

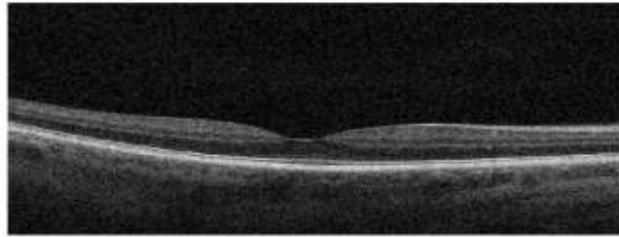
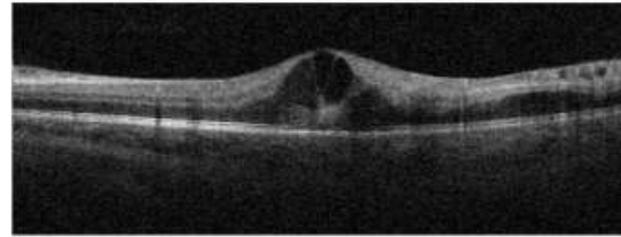
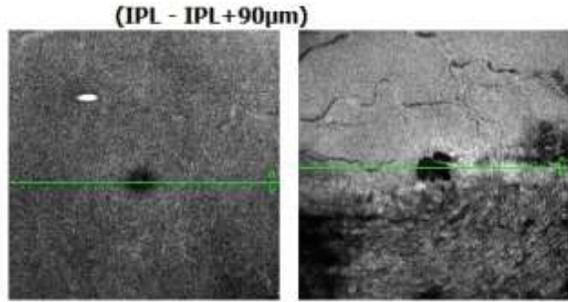
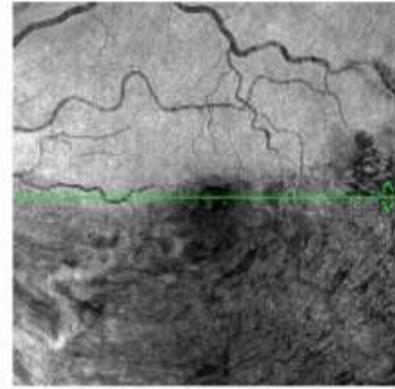
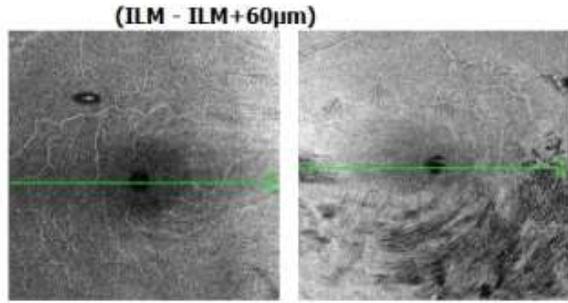
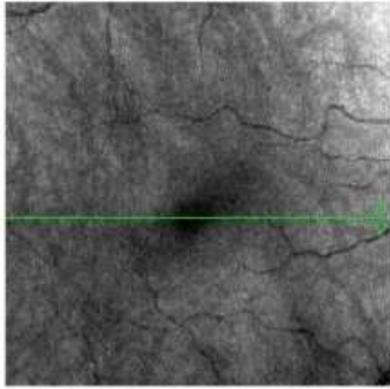
On examination, there was no iris abnormality. Retinae were attached with left inferotemporal branch retinal vein occlusion and macular oedema.

OCT showed left BRVO related macular oedema. OCT angiography showed absence of significant ischaemia. Optos showed intraretinal haemorrhages without new vessels.

We discussed the treatment options of observation versus a series of intravitreal injections. The latter would increase the chance of visual improvement. He will require 4-weekly injections initially, which can then be spaced out depending on response. He elected to proceed with this today.

Note to GP: please kindly assess vascular risk factors, including BP, FBC, U&E, clotting, lipids, ESR, CRP, fasting blood sugars, LFT, TFT.

I will review him in about 4 weeks for further injection.



Show Lines

Show Bnd

Auto Zoom



RDB Ref

Deviation Map

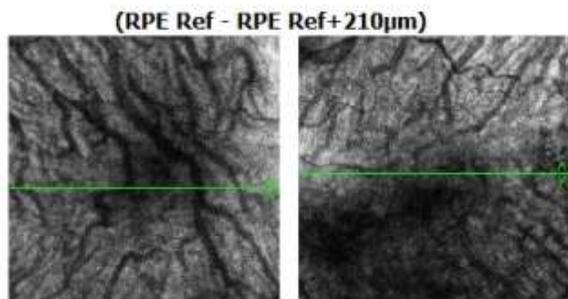
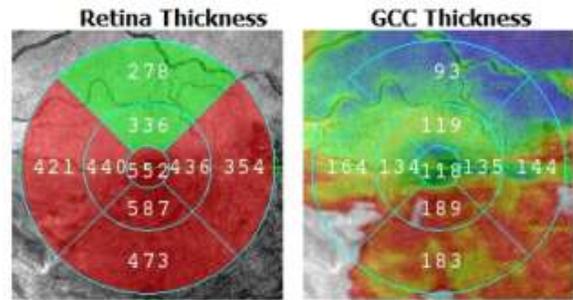
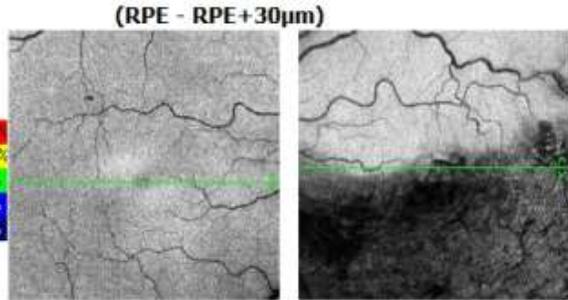
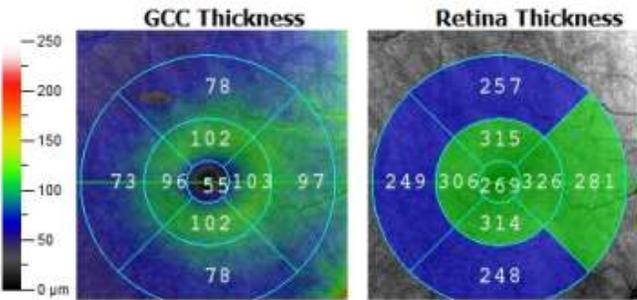
Thickness

GCC

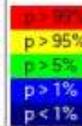
Retina



OPTOVUE



Retina Thickness(µm)			
	OD	OS	Diff
Fovea	269	552	283
ParaFovea	315	450	135
PeriFovea	259	382	123
ETDRS Grid	272	402	130



# Initial Visit

This gentleman's left visual acuity has improved significantly since commencing intravitreal Vabysmo. He was found by the GP to have raised cholesterol and blood pressure, for which he is now under treatment for.

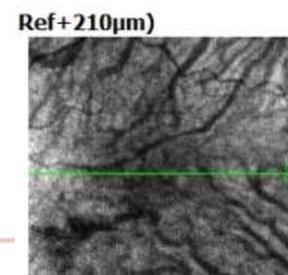
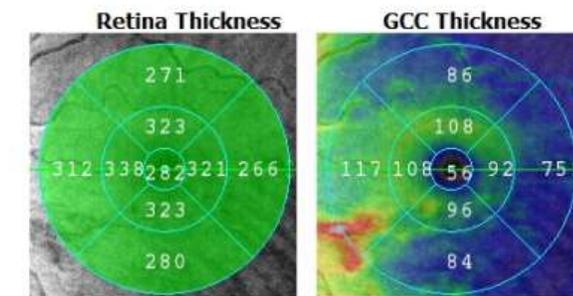
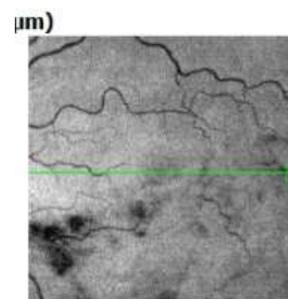
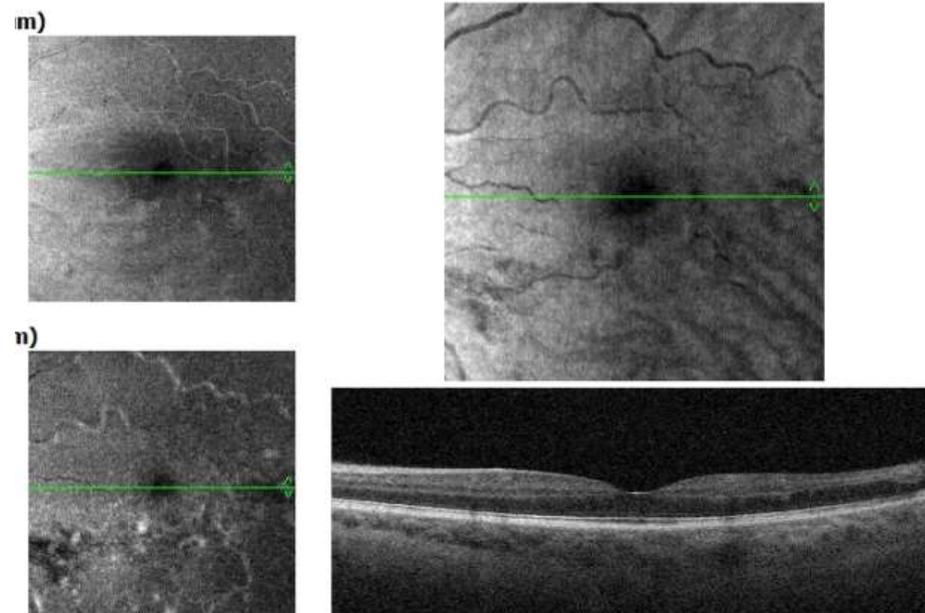
On examination, there was no NVI. Retinae were attached with reduce left intraretinal haemorrhages.

OCT showed left resolved macular oedema. Optos showed absence of NVE.

Plan:

1. Left Vabysmo today
2. Review 4 weeks for further Vabysmo

# Post Injection 1



Retina Thickness(µm)			
	OD	OS	Diff
Fovea	274	282	8
ParaFovea	315	326	11
PeriFovea	260	282	22
ETDRS Grid	273	292	19

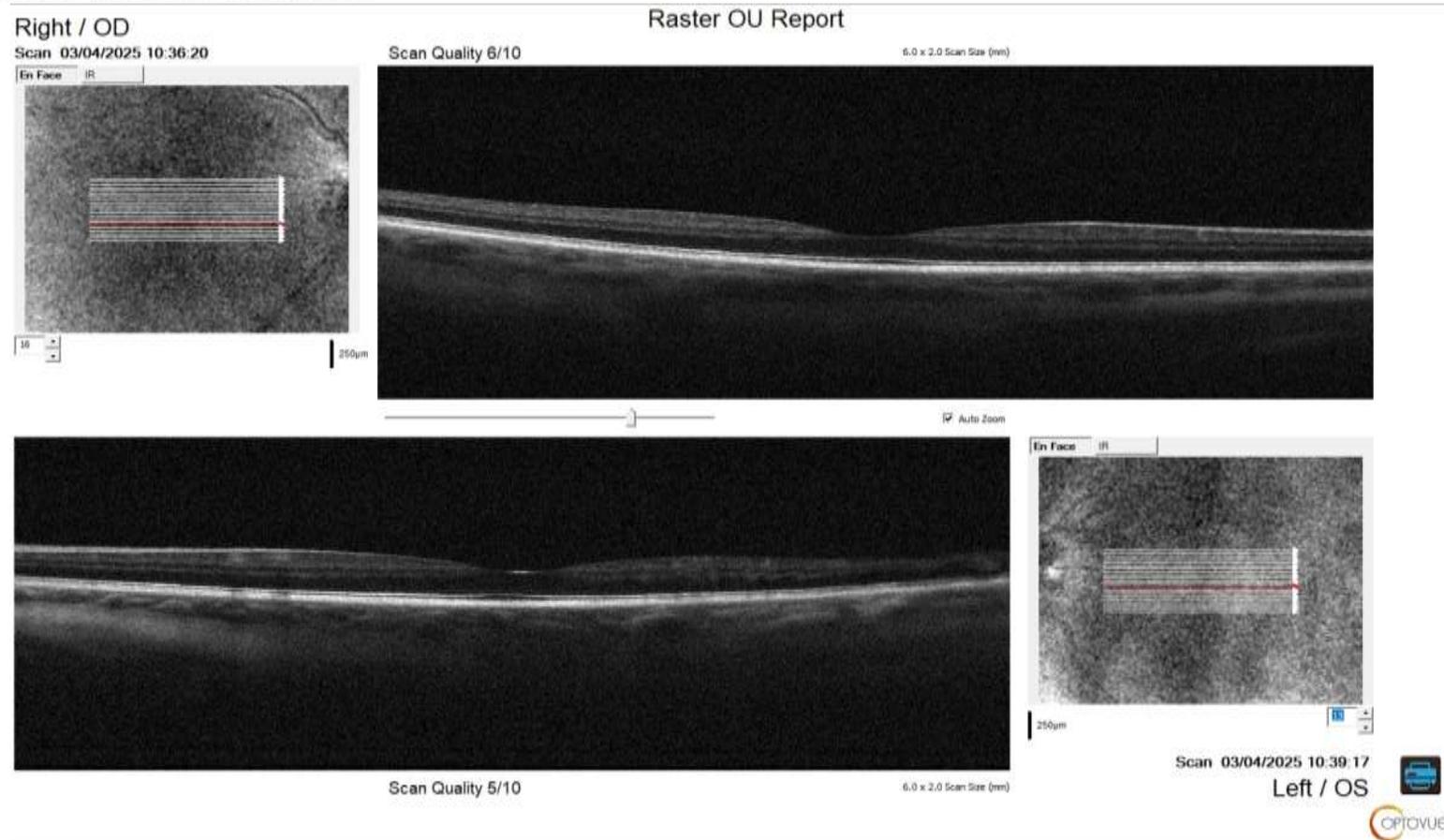


# Day of Injection 9

This gentleman's left eye has responded well to treatment. Macula was dry on OCT. There were a few remaining intraretinal haemorrhages.

Plan:

1. Left Vabysmo today
2. Extend to 14 weeks - 10.7.2025



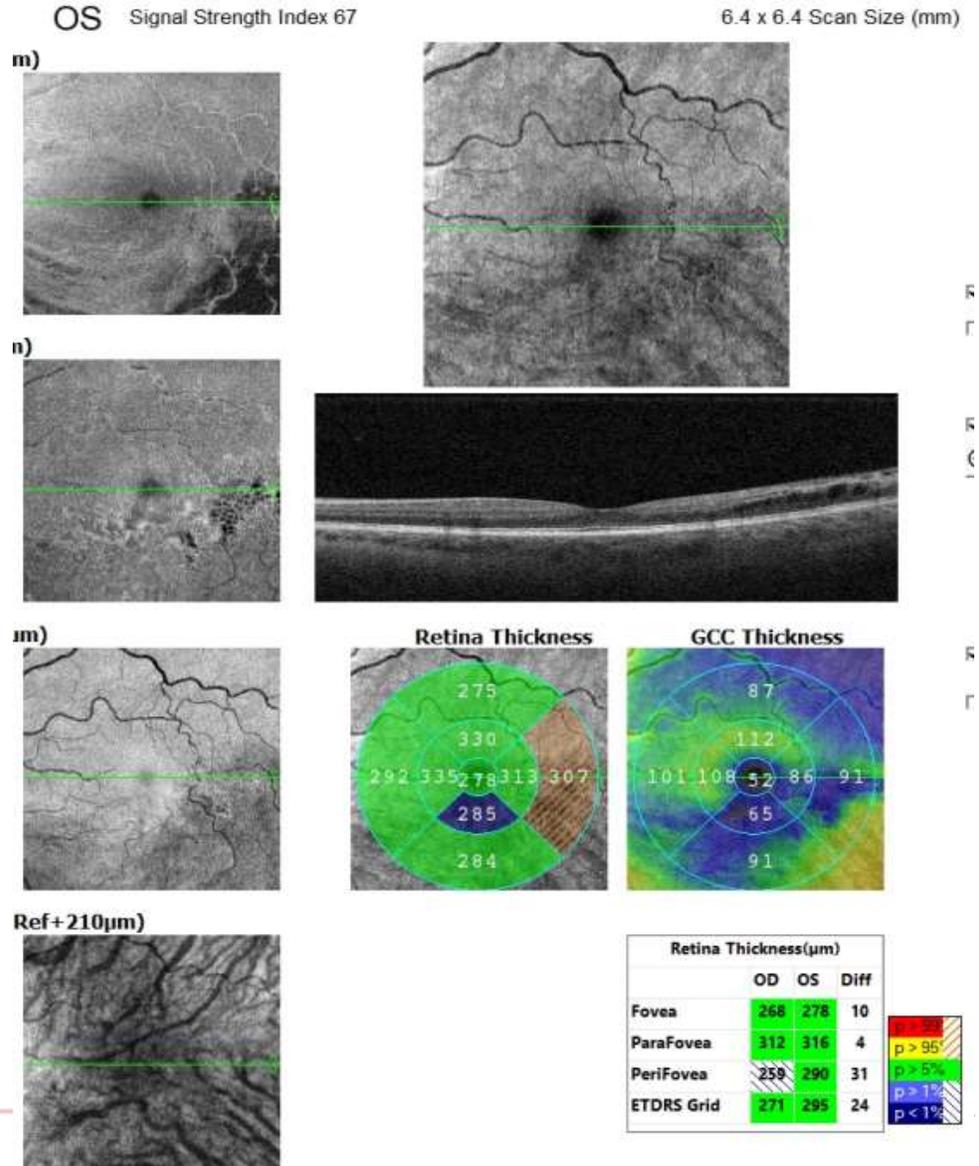
This gentleman had to push back the last interval to 15 weeks due to work travel changes. Vision is unchanged.

On examination, there were no NVIs. Left temporal macular oedema (fovea sparing) was present today on OCT imaging. This is a recurrence due to the increased interval. The central retina is currently spared. No retinal new vessels were present.

Plan:

1. Left Vabysmo today
2. Reduce interval to 12 weeks - 9.10.25

# Day of Injection 10



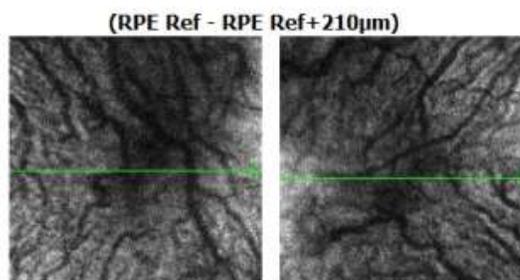
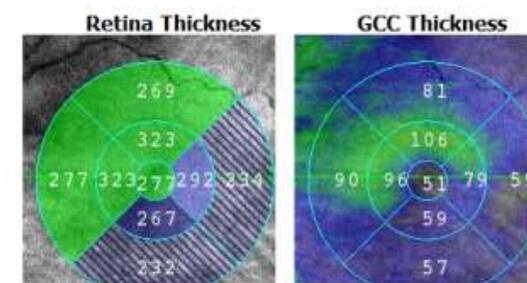
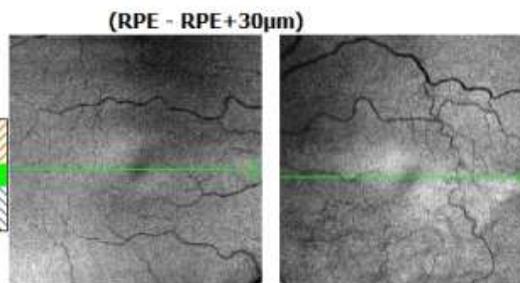
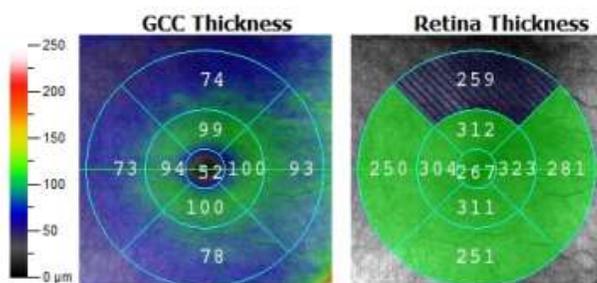
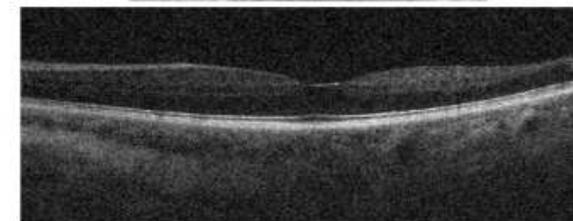
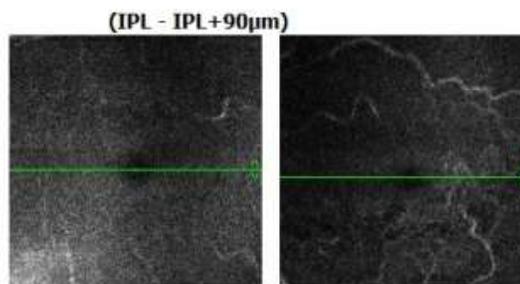
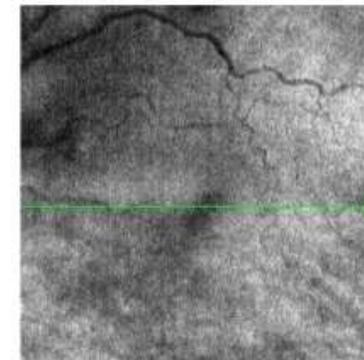
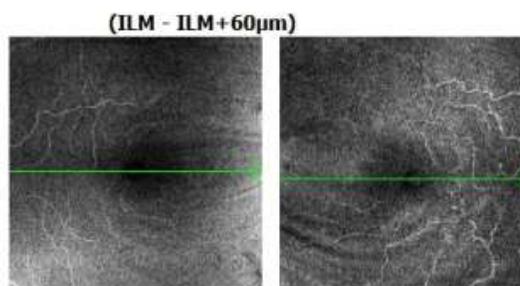
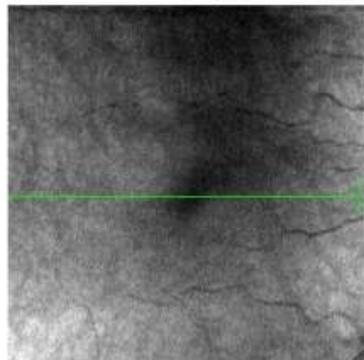
# Day of Injection 12

## 22 months post initial visit

### Retina Cube OU Report

Signal Strength Index 41 OD OS Signal Strength Index 38

6.4 x 6.4 Scan Size (mm)



Retina Thickness(μm)			
	OD	OS	Diff
Fovea	267	277	10
ParaFovea	312	301	-11
PeriFovea	260	254	-6
ETDRS Grid	272	265	-7

Show Lines

Show Bnd

Auto Zoom



RDB Ref

Deviation Map

Thickness

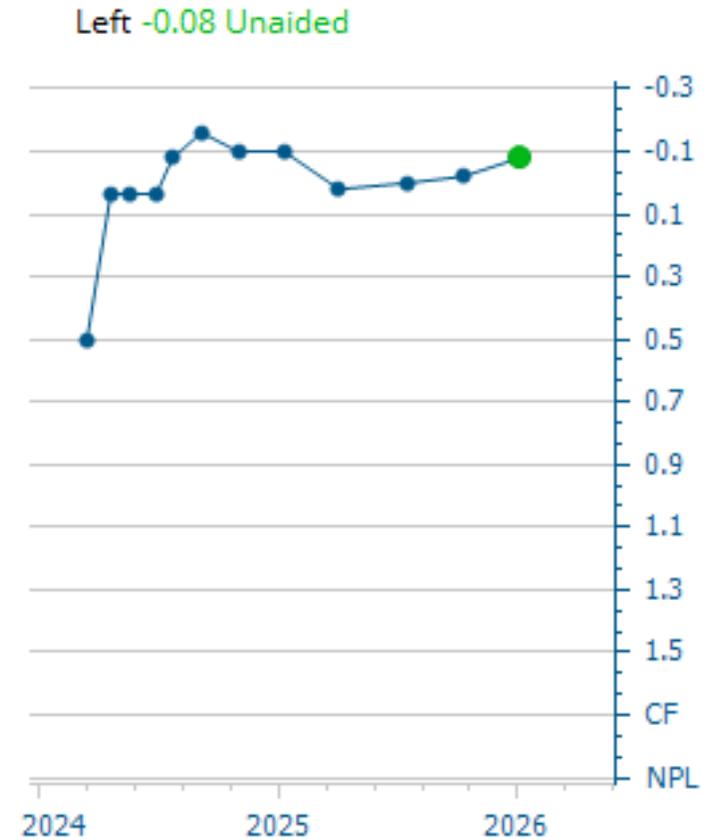
GCC

Retna



# Injection Log with V/A

Vabysmo	Unaided DV (LogMAR)	Aided NV (N type)
Pre injection	0.5	
After 1st	0.04	12
After 2 <sup>nd</sup>	0.04	4
After 3 <sup>rd</sup>	0.04	4
After 4 <sup>th</sup>	0.04	Unaided N12
After 5 <sup>th</sup>	-0.08	4
After 6 <sup>th</sup>	-0.16	4
After 7 <sup>th</sup>	-0.10	4
After 8 <sup>th</sup>	0.04	4
After 9 <sup>th</sup>	0.04	Unaided N6
After 10 <sup>th</sup>	0.02	Unaided N5
After 11 <sup>th</sup>	0	Unaided N5
After 12 <sup>th</sup>	-0.02	N4
After 13 <sup>th</sup>	-0.08	N4



## Clinical Recognition

- Acute presentation: sudden vision loss over days
- Red flags requiring urgent referral
- Risk factors: HTN, diabetes, hyperlipidemia, age >50
- Ischaemic vs. non-ischaemic BRVO

## Anti-VEGF Treatment Options

- Vabysmo (faricimab)**: dual pathway (VEGF-A + Ang-2), extended dosing Q8-16 weeks
- Eylea (aflibercept)**: Q4-8 weeks
- Lucentis (ranibizumab)**: Q4 weeks
- Avastin (bevacumab)**: off-label, Q4 weeks
- Steroids**: Ozurdex when anti-VEGF unsuitable (pseudophakic patients)

## Treatment Realities

- Loading phase: typically 3-6 monthly injections
- This case: **12 injections over 22 months** (important for patient expectations)
- Treat-and-extend vs. PRN protocols
- Not all patients return to baseline vision

## Monitoring & Co-Management

- OCT criteria for re-treatment
- Post-injection red flags: pain, vision loss, floaters (endophthalmitis)
- When optometrists should refer urgently vs. routinely
- Long-term fellow eye monitoring

## Key Discussion Questions

- 1.What makes this an urgent vs. routine referral?
- 2.How do you counsel patients on treatment duration?
- 3.When is treatment "complete"?
- 4.What systemic workup is needed?
- 5.Signs of treatment failure/need to switch agents?

## Complications

- Natural: neovascularization, vitreous hemorrhage, chronic edema
- Injection-related: endophthalmitis (<1:2000), RD, IOP spike