

Anatomical and Functional Effects of Faricimab Intravitreal Injections in Eyes with Macular Oedema Secondary to Retinal Vein Occlusion



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INTRODUCTION

Faricimab is a dual VEGF/Ang-2 inhibitor approved for MO secondary to RVO.

METHODS

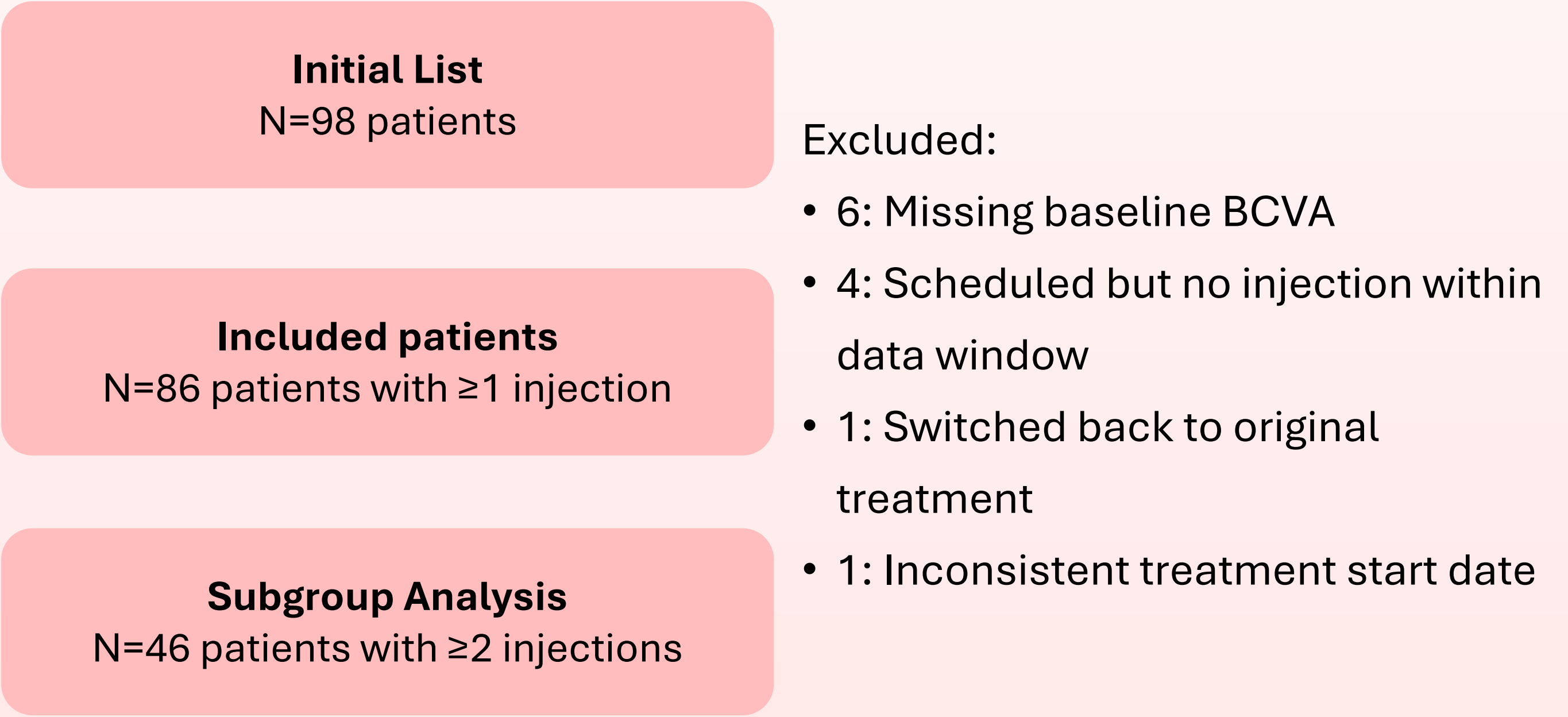
Electronic medical record review

○ Inclusion criteria:

- MO secondary to CRVO/HRVO/BRVO
- Baseline BCVA recorded
- At least one faricimab injection
- Treatment naïve or previously treated with anti-VEGF (ranibizumab/aflibercept)

AIM

To assess real-world anatomical and functional outcomes following faricimab treatment for RVO-related macular oedema.



RESULTS

Change from baseline after injections:

- **BCVA: 0.90 → 0.65, p = 0.001**
- **CRT: 560 → 260 µm, p < 0.001**
- **MRT: 740 → 470 µm, p < 0.05** (max. retinal thickness)
- **Mean follow-up interval: 115 days**

Table 1: Time intervals between injections

Parameter	Mean	Minimum	Maximum	Standard Deviation	Range
Days from baseline to assessment (after 2 injections)	115.04	65	174	24.78	109

After two injections:

- **Mean BCVA: improved from 0.90 → 0.65 logMAR (p=0.001).**
- **Mean MRT*: decreased from 740 µm → 470 µm (p<0.05).**
- **Mean CRT: decreased from 560 µm → 260 µm (p<0.001).**

* MRT = maximum retinal thickness

Predictors of Outcome (linear regression):

- **Better outcomes: lower baseline BCVA & lower baseline MRT (each p<0.05).**
- **No significant effect: age, treatment status (naïve vs switch), SRF, ERM, ellipsoid zone discontinuity, CRT.**

Table 2: Summary of Descriptive Statistics for BCVA, MRT

and CRT at Baseline and After Two Injections.

Variable	Timepoint	Mean Value	Standard Deviation	Minimum	Maximum
BCVA (logMAR)	Baseline	0.90	0.54	0.12	2.70
	After 2 injection assessment	0.65	0.47	0.04	2.28
MRT (µm)	Baseline	740	280	350	1740
	After 2 injection assessment	470	170	280	1100
CRT (µm)	Baseline	560	290	210	1430
	After 2 injection assessment	260	150	90	790

CONCLUSIONS

- Faricimab improved BCVA and retinal anatomy, despite prolonged injection intervals
- Better baseline BCVA and maximum retinal thickness predicted better outcomes
- Positive outcomes were seen in real-world NHS practice
- Future studies:**
 - Real-world multicentre studies
 - Longer follow-up
 - AI-assisted prediction modelling

Strength

- Reflects real-world clinical practice

Limitation

- Small sample size may have limited statistical power, esp. for regression analyses.

References:

1. Ramens, F., Lamanna, F., Gabriella, P.H., Teo, K.Y.C., Battaglia Parodi, M., Iacono, P., Fraser-Bell, S., Cornish, E.E., Nassisi, M., Viola, F., Agarwal, A., Samanta, A., Chhablani, J., Staurenghi, G. and Invernizzi, A. (2023). 'Update on Retinal Vein Occlusion'. *Asia-Pacific Journal of Ophthalmology*, 12, pp. 196-210. <https://doi.org/10.1097/APO.0000000000000558>

2. Royal College of Ophthalmologists (2022) *Retinal vein occlusion (RVO) guidelines*. Available at: <https://www.rcophth.ac.uk/resources-listing/retinal-vein-occlusion-rvo-guidelines/> (Accessed: 15 July 2025).

3. Ophthalmology Management (2015) *Learning to read retinal OCT*. Available at: <https://ophthalmologymanagement.com/issues/2015/july/learning-to-read-retinal-oct/> (Accessed: 9 July 2025).