Intraocular inflammation following intravitreal faricimab: insights from five bilateral cases

N Dhillon, S Macleod

National Treatment Centre Highland, Inverness, NHS Highland

INTRODUCTION

Intravitreal faricimab (Vabysmo 120mg/ml, Roche, Genentech) is a novel dual monoclonal antibody that targets and inhibits both VEGF-A (vascular endothelial growth factor A) and angiopoietin-2 (Ang2).

Clinical trials (TENAYA & LUCERNE for nAMD; YOSEMITE & RHINE for DMO) reported a safety profile comparable to aflibercept, with low rates of intraocular inflammation (IOI).

Since faricimab's integration into clinical practise, case reports have raised concerns about faricimab-related intraocular inflammation.

OBJECTIVE

Here we report our centre's experience with severe intraocular inflammation following intravitreal faricimab injections.

METHOD

A retrospective case review was conducted for all patients who underwent intravitreal faricimab injections across three NHS Highland sites and developed severe intraocular inflammation between January 2023, when faricimab was introduced at our health board, and June 2024.

RESULTS

2,034 faricimab injections were administered during the 18-month study period. 267 eyes of 208 patients were treated with faricimab, of which 59 patients received bilateral injections.

Faricimab-related IOI was observed in 11 eyes of 6 patients (an incidence of 4.1% per eye). Within the bilateral faricimab subgroup, an incidence of 8.5% (5/59) was observed.

Key features of IOI at presentation

- Asymptomatic or delayed onset of symptoms
- Anterior or intermediate uveitis
- Keratic precipitates
- Elevated IOP (mean 33 mmHg)

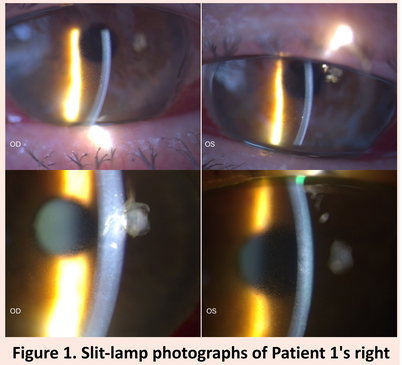


Figure 1. Slit-lamp photographs of Patient 1's right eye (OD) and left eye (OS) demonstrate bilateral fine keratic precipitates

Table 1. Summary of patient characteristics	Patient 1		Patient 2		Patient 3		Patient 4		Patient 5		Patient 6
	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	One eye affected
Indication for injections	DMO	DMO	AMD	AMD	AMD	AMD	AMD	AMD	AMD	AMD	AMD
Days symptoms first started after injection	10	10	49	N/A	9	9	18	N/A	N/A	N/A	21
Symptoms	None	Reduced vision and pain	Blurred vision and floaters	None	Blurred vision and pain	Blurred vision and pain	Floaters	None	None	None	Blurred vision
Days from last injection to hospital presentation	14	14	53	54	12	12	25	25	47	47	37
Number of previous faricimab injections	6	6	4	5	4	4	4	4	6	6	5
Number of other previous injections	32 Eylea	32 Eylea	16 Eylea	13 Eylea	3 Ongavia	3 Ongavia	3 Eylea; 55 Lucentis	4 Eylea; 56 Lucentis	21 Eylea	26 Eylea	18 Eylea
Vision before injection (ETDRS letters)	65	43	68	80	48	64	80	67	79	CF	61
Vision at presentation (ETDRS letters)	58	47	CF	57	CF	55	67	70	80	CF	50
Change in vision from last injection	-7	4	-68	-23	-48	-9	-13	3	1	0	-11
IOP (mmHg)	32	40	17	14	47	48	20	22	34	40	51
Red eye	No	Yes	Yes	No	Yes	Yes	No	No	No	No	Yes
Keratic precipitates	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Vitritis	No	No	Yes	Yes	No	No	Yes	Yes	No	No	No
Vasculitis	No	No	No	No	Occlusive	No	No	No	No	No	No
Deviation in final VA from baseline	0	-10	-24	0	-7	0	-5	0	0	0	0
Tap and inject	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	No
Aqueous culture	N/A	N/A	Negative	N/A	Negative	Negative	Negative	Negative	N/A	N/A	N/A
Vitreous culture	Negative	Negative	Negative	N/A	Negative	Negative	Negative	Negative	N/A	N/A	N/A
Faricimab LOT number	B1502B25	B1505B01	B1505B01	B1505B02	B1527B01	B1525B01	B1507B16	B1510B01	B1510B01	B1509B15	B1509B15

Key Points

- 5 eyes of 4 patients were asymptomatic of IOI. Patient 5 was asymptomatic bilaterally
- All microbiological cultures were negative.
- A systemic uveitis screen was not performed due to the close temporal relationship with faricimab injection.
- Faricimab was discontinued in all, and no recurrence of IOI was seen.

CONCLUSION

Our data suggests the incidence of sterile faricimab-related IOI is higher than reported in clinical trials, particularly in patients receiving bilateral treatment.

RECOMMENDATIONS

- Increased vigilance is needed in patients receiving bilateral faricimab injections, particularly within the first 6 doses.
- IOP check prior to each injection.
- Education of patients and clinical staff in recognising signs of inflammation.