Long-term visual outcomes following anti-VEGF treatment in neovascular AMD: Real-world evidence from a UK district hospital

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Background

Intravitreal anti-VEGF injections have long since been proven to be the gold-standard treatment for neovascular AMD (nAMD): Ranibizumab/ Lucentis®, Aflibercept/ Eylea® and more recently, Faricimab/Vabysmo®.

Although anti-VEGF is well established, real-world studies have shown great variability in visual outcomes when compared to large clinical trials, especially when concerning long-term data, where visual decline is often seen.

Objectives

To report 2-, 3- and 4-year visual outcomes of patients undergoing anti-VEGF therapy for nAMD in a *real-world setting*

Methods

This single-centred, retrospective interventional case series evaluation obtained data from treatment naïve patients with nAMD commenced on treatment from January to December 2018. Electronic notes (OpenEyes™) were reviewed to obtain information on visual acuity, type and number of anti-VEGF injections.

Conclusion

More than half eyes had stable vision at each year of follow-up. Our study had a notably higher proportion of patients with functional vision at baseline compared with other studies which was well retained in all groups despite the COVID pandemic

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Key results

Overall, 160 eyes had records completing 2-years follow up, 112 had 3-years and 64 completed 4-years. Average baseline VA was 59 ± 20 letters.

More than half of patients had stable vison (defined as <5 letter loss) at end of follow-up for each category (64%, 59% and 56% eyes at 2-years, at 3-years, at 4-years respectively). Average baseline VA was 59 ± 20 letters.

Median change in VA:

- At 2 years: unchanged from baseline
- At 3-years, -2 letters
- At 4-years, +3 at 4-years

Figure 1 below provides a precise overview of the letters gained or loss at each year of follow-up by percentage to allow for comparison between all three groups

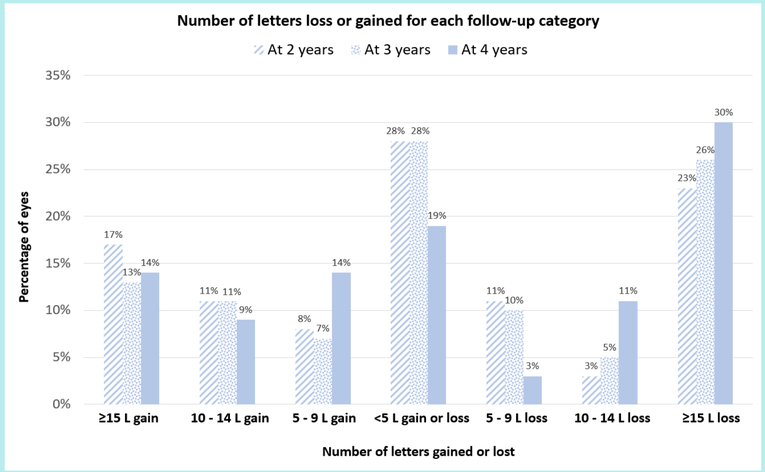


Table 1 Two-, three- and four-year outcomes for those with nAMD treated with anti-VEGF. Data regarding VA for all years of follow-up.

	Analysis of each category			
	Baseline 160 eyes	**At 2-years 160 eyes**	**At 3-years 112 eyes**	**At 4-years 64 eyes**
Baseline mean VA (ETDRS letters)	59 ± 20	59 ± 20	61 ± 20	60 ± 18
Mean change in VA (ETDRS letters)	N/A	-2.8 ± 23	-6.4 ± 24	-7.9 ± 26
Mean VA at follow-up (ETDRS letters)	N/A	56 ± 25	54 ± 27	52 ± 29
Baseline median VA (ETDRS letters)	65	65	67	61
Median VA at follow-up (ETDRS letters)	N/A	65	65	64
Eyes with ≥ 15 letter gain (%)	N/A	17%	13%	14%
Eyes with ≥ 15 letter loss (%)	N/A	23%	26%	30%
Eyes with stable vision [<5 letter gain or loss] (%)	N/A	28%	28%	19%
Eyes with stable or gained letters (%)	N/A	64%	59%	56%
Eyes with ≥70 letter VA [6/12] (%)	39%	44%	43%	42%

The number of eyes with **functional vision** (≥70 letters [6/12]) either **increased or was unchanged** in every category of follow-up as shown in figure 2.

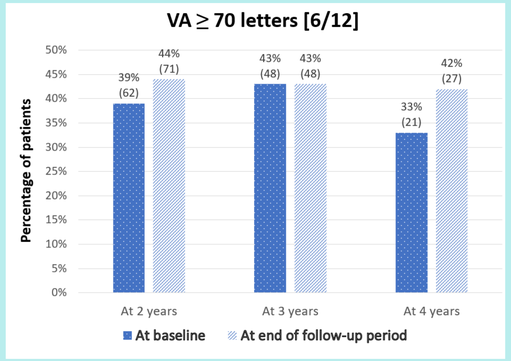


Fig 2: *Percentage (raw number) of eyes who achieved best corrected VA of ≥70 letters [6/12] at baseline and then at each year of follow-up; 2, 3, and 4-year*

The number of eyes with **poor VA** (≤35 letters [6/60]) **increased** in every category of follow-up as shown in figure 3. Of the total, 54 had poor VA vision at their final follow-up (15 had poor VA at baseline).

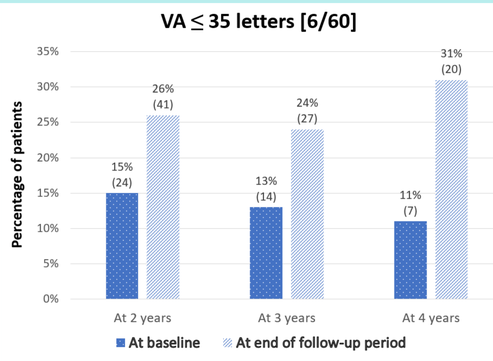


Fig 3: *Percentage (raw number) of eyes who achieved best corrected VA of ≤35 letters [6/60] at baseline and then at each year of follow-up; 2, 3 and 4-year*