High-frequency aflibercept injections in persistent neovascular age-related macular degeneration

Ilkay Kilic Muftuoglu¹ • William R. Freeman¹

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Dear Editor,

We would like to thank Călugăru D et al. for their interest to our study entitled "High frequency aflibercept injections in persistent neovascular age-related macular degeneration".

We evaluated several anatomic outcomes obtained by high-resolution spectral domain optical coherence tomography, including retinal thickness parameters and photoreceptor layer integrity as well as functional outcome assessed by ETDRS letters. Contrary to their thoughts, claiming that all anatomic outcomes worsened during the study period, we showed that central macular thickness, maximum retinal thickness and maximum pigment epithelial detachment height decreased compared to baseline, when high frequency was started, at all visits with a slight fluctuation over follow-up [1]. Since these eyes were chronically treated eyes that failed a substantial number of injections, not surprisingly, there was an increase in the proportion of eyes with atrophy and scar formation. We agree with the authors that disease still may be active and progressing in such cases, requiring further treatments with antiangiogenic agents.

On the other hand, although there was no significant improvement in visual acuity during follow-up, these chronically treated eyes achieved stabilization of best-corrected visual acuity of 20/76, which was far better than the range of visual acuity in wet AMD eyes before the introduction of anti-VEGFs.

Instead of giving every other month aflibercept treatment for all patients during follow-up, as recommended by the other authors [2], we escalated the regimen to monthly aflibercept when there was a resistance or multiple recurrences as defined in the manuscript. In a model of predictors of vision improvement, we assessed several anatomic outcomes, and found that photoreceptor integrity was the major predictor of visual outcome.

We agree that possible adverse effects of aflibercept may not be seen during ranibizumab treatment. However, in VIEW 1-2 trials [3], aflibercept was found to be non-inferior to ranibizumab treatment of naïve neovascular AMD patients. In our previous series, aflibercept was also effective in persistent neovascular age-related macular degeneration patients who failed monthly bevacizumab and/or ranibizumab injections over a 2-year follow-up [4].

In conclusion, based on data provided, we have clearly shown that increasing the frequency of aflibercept injections can be considered for neovascular AMD eyes with persistence of retinal fluid and/or exudation.

References

1. Muftuoglu IK, Tsai FF, Gaber R, Alam M, Meshi A, Freeman WR (2017) High-frequency aflibercept injections in persistent neovascular age-related macular degeneration. *Graefes Arch Clin Exp Ophthalmol* 255:709–717
2. Jaffe GJ, Kaiser PK, Thompson D et al (2016) Differential response to anti-VEGF regimens in age-related macular degeneration patients with early persistent retinal fluid. *Ophthalmology* 123:1856–1864
3. Heier JS, Brown DM, Chong V et al (2012) Intravitreal aflibercept (VEGF trap-eye) in wet age-related macular degeneration. *Ophthalmology* 119:2537–2548
4. Muftuoglu IK, Arcinue CA, Tsai FF, Alam M, Gaber R, Camacho N, You Q, Freeman WR (2016) Long-Term Results of Pro Re Nata Regimen of Aflibercept Treatment in Persistent Neovascular Age-Related Macular Degeneration. *Am J Ophthalmol* 167:1–9

✉ William R. Freeman
freeman@eyecenter.ucsd.edu

¹ Department of Ophthalmology, Jacobs Retina Center at the Shiley Eye Institute, University of California San Diego, 94093 Campus Point Drive, La Jolla, CA 92037, USA