

Re: Wilkins et al.: Randomized Trial of Multifocal Intraocular Lenses Versus Monovision after Bilateral Cataract Surgery (Ophthalmology 2013;120:2449-55)

Dear Editor:

In comparing multifocal to monofocal intraocular lenses implanted to create monovision, Wilkins et al¹ graciously recognized me as the first to publish on the use of full (-2.75 diopters in the near eye) monovision.² However, the statement that only 1 previous study of monovision in cataract surgery has reported overall spectacle independence as an outcome measure misses the point of my report. I found that implanting a lens measured for distance in the dominant eye followed, once the success of the distance correction was confirmed, by a second implantation of a lens measured to create a -2.75-diopter correction in the near eye resulted in 110 of 120 (91%) patients with cataract achieving $\geq 20/30$ vision in their dominant distance eye, along with J1 or better vision in their near eye. Table 3 in my paper outlines the use of optical aids. Only 7 patients wore any distance correction postoperatively (5.8%), 10 wore near (8.4%), 7 of whom wore both (5.8%), for a spectacle independence rate of 91.6%. Wilkins et al¹ noted a 71.3% rate of spectacle independence using multifocal lenses, after 4 patients had bilateral and 2 patients had unilateral intraocular lens exchanges. No intraocular lens exchange was required in the Wilkins group of monovision patients or in mine. The implantation of monofocal intraocular lenses to create full monovision is a useful operative technique for providing spectacle independence in a safe and cost-effective manner.

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Authors of the original study declined to respond.

References

1. Wilkins MR, Allan BD, Rubin G, et al. Randomized trial of multifocal intraocular lenses versus monovision after bilateral cataract surgery. *Ophthalmology* 2013;120:2449-55.
2. Greenbaum S. Monovision pseudophakia. *J Cataract Refract Surg* 2002;28:1439.

Re: Grunwald et al.: Risk of Geographic Atrophy in the Comparison of Age-Related Macular Degeneration Treatments Trials (Ophthalmology 2014;121:150-61)

Dear Editor:

We commend the ambitious challenge taken on by the authors of "Risk of Geographic Atrophy in the Comparison of Age-related Macular Degeneration Treatments Trials."¹ It is important to monitor risks and benefits of chronic therapies in patients with chronic diseases. Age-related macular degeneration provides a particularly difficult challenge because it is accompanied by a variety of anatomic abnormalities in the macula that make observations and interpretations difficult and because the natural history is complex and variable.

Multivariate analysis identified a greater risk of developing geographic atrophy (GA) among patients treated with ranibizumab versus those treated with bevacizumab and among patients who received monthly treatment with either of these agents versus those treated only when there was intraretinal or subretinal fluid in the macula. The authors state in the discussion that, "Others have speculated that the presence of residual fluid may have masked the assessment of GA, leading to lower rates of detection in eyes with residual fluid" and that this possibility was ruled out because 16 eyes determined to have GA were later judged to have GA despite an increase in fluid defined as an increase in thickening $>50 \mu\text{m}$. Rather than this indirect approach of addressing this concern, which is difficult to evaluate without more details, it would be better to address it directly by including the presence of fluid in the multivariate model. The challenge is how does one reliably determine whether intraretinal fluid is present at the time of grading for GA? A criterion analogous to that chosen by the authors, central thickening $>50 \mu\text{m}$ compared with the lowest prior reading, is reasonable, but the presence of intraretinal cysts is probably more reliable. The authors should consider including these 2 variables in the multivariate Cox regression model to determine whether intraretinal fluid is "protective" regarding identification of GA.

Even if there were definitive evidence that the presence of intraretinal fluid did not confound ascertainment of GA and influence results, it is premature to suggest that it is a settled issue that anti-vascular endothelial growth factor (VEGF) agents cause GA and that clinicians and patients should feel that it is critical to minimize use of anti-VEGF agents to avoid GA as suggested by the statement, "These findings have important clinical implications and should be included in discussions with patients regarding the benefits and risks of the choice of treatment type and regimen." In fact, it is quite clear from the treatment of patients with diabetic macular edema or retinal vein occlusion that frequent injections of anti-VEGF agents do not cause GA in patients in whom GA is not part of the natural history of their disease. Figure 1 shows patients with severe abnormalities of the RPE and photoreceptors at baseline throughout regions of the macula where GA was later identified; if these are the best examples of "de novo" GA caused by anti-VEGF treatment, it is prudent to exercise caution before jumping on the anti-anti-VEGF bandwagon. We agree with the authors that it is important to determine whether patients randomized to monthly injections and remaining on that regimen long term ultimately have a worse visual outcome than patients randomized to treatment as needed and remaining on that regimen long term, but we disagree that clinicians and patients should minimize the use of an efficacious treatment until it is definitively proven that it is in their best interest to do so.

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Reference

1. Grunwald JE, Daniel E, Huang J, et al. Risk of geographic atrophy in the comparison of age-related macular degeneration treatments trials. *Ophthalmology* 2014;121:150-61.