Published in final edited form as:
Br J Ophthalmol. 2008 June ; 92(6): 864–866.

Non-responders to bevacizumab (Avastin) therapy of choroidal neovascular lesions

N Nigam, **J Hedaya**, and **W R Freeman**
UCSD Department of Ophthalmology, Shiley Eye Center, Joan and Irwin Jacobs Retina Center, La Jolla, CA, USA

We read with great interest the article "Non-responders to bevacizumab (Avastin) therapy of choroidal neovascular lesions," by Lux *et al*.[1] Avastin and Lucentis have become the standard of care for choroidal neovascularisation with a better visual acuity outcome than other well-studied therapies.[2 3] The use of Macugen and photodynamic therapy (PDT) is declining rapidly. The current challenge with the new anti-vascular endothelial growth factor treatment is to determine which eyes do and do not respond to treatment. The authors conclude that 45% of the patients treated with Avastin for choroidal neovascularisation were non-responders. We feel that the authors' analysis has confused the issue, since they are pooling patients with (36%) and without prior treatment. We have previously published that patients treated with Avastin primarily had significantly greatervisual acuity improvement than patients who previously had treatment with Macugen or PDT.[4] Prior treatment with Macugen or PDT results in scarring, which can account for a lack of improvement in the final visual acuity despite definite anatomic improvement (ie, a reduction in retinal fluid on optical coherence tomography (OCT)). The authors have defined non-responders as patients who had either a reduction or no change in visual acuity at the last visit. Since prior treatment limits the potential for visual acuity improvement, it is unfair to label such patients as non-responders. We, therefore, would ask the authors to perform a subanalysis of patients receiving only primary Avastin treatment in order to determine the proportion of "true" non-responders.

Second, the authors have not included the anatomical response on OCT and fluorescein angiogram (FA) in determining non-responders. Their criterion was visual acuity alone. Some patients undergoing monthly Avastin injections have a good visual acuity improvement but some retinal fluid persists for a long time. Should we call them responders or partial responders? If only visual acuity is taken into consideration, this subgroup of patients would be classified as responders, but a complete response should include both an improvement in vision and a dry macula. Anatomical response is an important criterion for the decision to continue treatment as well as to define response to the treatment.

We greatly appreciate the study done by Lux *et al*. We hope they will provide information on the subgroup of eyes treated only with Avastin, as well as OCT and FA data for those classified as non-responders.

REFERENCES

1. Lux A, Llacer H, Heussen FM, Joussen AM. Non-responders to bevacizumab (Avastin) therapy of choroidal neovascular lesions. Br J Ophthalmol 2007;91:1318–22. [PubMed: 17537784]

Correspondence to: Dr W R Freeman, UCSD Department of Ophthalmology, Shiley Eye Center, 0946, Joan and Irwin Jacobs Retina Center, 9415 Campus Point Drive, La Jolla, CA 92037, USA; freeman@eyecenter.ucsd.edu.

Competing interests: None.

2. Rosenfeld PJ, Brown DM, Heier JS, et al. Ranibizumab for neovascular age-related macular degeneration. N Engl J Med 2006;355:1419–31. [PubMed: 17021318]

3. Freeman WR, Falkenstein I. Avastin and new treatments for AMD: where are we? Retina 2006;26:853–8. [PubMed: 17031283]

4. Falkenstein IA, Cheng L, Morrison VL, et al. Standardized visual acuity results associated with primary versus secondary bevacizumab (Avastin) treatment for choroidal neovascularization in age-related macular degeneration. Retina 2007;27:701–6. [PubMed: 17621178]