

Intravitreal Bevacizumab (Avastin) for the Treatment of Neovascular Age-related Macular Degeneration (AMD)

Alessandro A. Castellarin, MD (Santa Barbara, CA), Robert L. Avery, MD (Santa Barbara, CA),* Dante J. Pieramici, MD (Santa Barbara, CA),* Ma-an A. Nasir, MD (Santa Barbara, CA), Melvin D. Rabena, BS (Santa Barbara, CA), Matthew J. Giust, CRA (Santa Barbara, CA)

PURPOSE

To report the safety and biologic effect of intravitreal bevacizumab in the treatment of neovascular age-related macular degeneration in patients followed for a minimum of 6 months.

METHODS

A retrospective review of consecutive patients receiving intravitreal bevacizumab for neovascular AMD was performed after IRB approval. Patients received intravitreal bevacizumab (1.25 mg) on a monthly basis until macular edema, subretinal fluid, and/or pigment epithelial detachments resolved. Ophthalmic evaluations included nonstandardized Snellen visual acuity (VA), complete ophthalmic examination, fluorescein angiography, and optical coherence tomography (OCT).

RESULTS

This study evaluated 110 eyes of 102 patients (34 men and 68 women), the majority of whom had previous treatment with photodynamic therapy and/or pegaptanib. Follow-up ranged from 6 to 9 months with a mean of 6.7 months. Patients received between 1 and 7 injections, with a mean of 3.1 injections. After the fourth injection, one patient developed uveitis which resolved without sequelae within a week of treatment with topical steroids. No other significant ocular or systemic side effects were observed. The mean retinal thickness of the central 1 mm as measured by OCT decreased from a baseline of 344 μm to 265, 266, and 254 μm at 1, 3, and 6 months, respectively ($P < 0.0001$). Mean visual acuity improved from 20/200 to 20/125+ at 1, 3, and 6 months ($P < 0.0001$).

CONCLUSION

Intravitreal bevacizumab is well tolerated and is associated with improvement in VA and reduction in retinal edema. These improvements were rapid (<1 month) and were maintained throughout the duration of the study. Although there was wide variability, on average, patients required treatment approximately every 2 months. Further evaluation of bevacizumab for the treatment of AMD is warranted.

* Financial interest disclosed