

Intravitreal Bevacizumab (Avastin) Treatment of Choroidal Neovascularization Secondary to Age-related Macular Degeneration

Richard F. Spaide, MD (New York, NY),* Ketan Laud, MD (New York, NY), Howard Fine, MD (New York, NY), James M. Klancnik, MD (New York, NY), Catherine Meyerle, MD (New York, NY), Lawrence Yannuzzi, MD (New York, NY), John Alan Sorenson, MD (New York, NY), Jason S. Slakter, MD (New York, NY),* Yale L. Fisher, MD (New York, NY)

PURPOSE

To report the short term anatomic and visual acuity response after intravitreal injection of bevacizumab (Avastin) in patients with choroidal neovascularization (CNV) secondary to age-related macular degeneration (AMD).

METHODS

We conducted a retrospective study of patients with CNV secondary to AMD who were treated with intravitreal injection of 1.25 mg bevacizumab during a three month period. Patients underwent best-corrected Snellen visual acuity testing, optical coherence tomography (OCT) imaging and ophthalmoscopic examination at baseline and follow-up visits.

RESULTS

There were 266 consecutive eyes of 266 patients injected and follow-up information was available for 251 (94.4%). The mean age of the patients was 80.3 years, the mean visual acuity was 20/184, and 175 (69.7%) had inadequate response by alternate methods of treatment. At the first month follow-up, available for 244, the mean visual acuity was 20/137 ($p < .001$ as compared with baseline) and 74 (30.3%) of patients had improvement in visual acuity as defined by a halving of the visual angle. At the third month follow-up, available for 141 patients, the mean acuity was 20/109 ($p < .001$) and 54 (38.3%) showed visual improvement. The mean central macular thickness at baseline was 340 microns and decreased to 213 microns at month 3 ($p < .001$). No endophthalmitis, increased intraocular pressure, retinal tear, or retinal detachment occurred. The risk for thromboembolic disorders did not seem to be different than previously reported AMD studies.

CONCLUSION

There were no apparent short-term safety concerns for intravitreal bevacizumab injection for CNV. Treated eyes had a significant decrease in macular thickness and improvement in visual acuity. The follow-up is too short to make any specific treatment recommendations, but the favorable short-term results suggest further study is needed.

* Financial interest disclosed