

## **Intravitreal Bevacizumab for Neovascular Glaucoma**

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### **Purpose**

To evaluate the therapeutic effect of intravitreal bevacizumab as treatment of neovascular glaucoma due to ischemic retinopathies.

### **Methods**

The clinical interventional case-series study included 14 patients (14 eyes) with neovascular glaucoma, who consecutively received three intravitreal injections of bevacizumab (1.5 mg) given at intervals of 6 weeks. Main outcome parameters were regression of iris neovascularization and intraocular pressure at 2 to 3 months after the last injection. Main outcome parameters were regression of iris neovascularization, intraocular pressure, and visual acuity.

### **Results**

In 13 (93%) patients, the iris neovascularization completely regressed, and in one patient (7%), the iris neovascularization showed a partial regression. The mean intraocular pressure decreased significantly from  $43.4 \pm 12.5$  mm Hg at baseline to  $31.5 \pm 9.6$  mm Hg ( $P=0.02$ ) at 1 month, to  $24.4 \pm 8.1$  mm Hg ( $P=0.001$ ) at 6 months, and to  $20.3 \pm 6.1$  mm Hg ( $P<0.001$ ) at 9 months after the first injection. The mean reduction in intraocular pressure was  $22.7 \pm 14.6$  mm Hg or  $47.7 \pm 22.2\%$ . The mean visual acuity was at 3 months after the first intravitreal injection slightly worse than at baseline of the study ( $1.55 \pm 0.99$  logMAR versus  $1.81 \pm 1.03$  logMAR;  $P=0.044$ ). At all other follow-up examinations, the mean visual acuity did not vary significantly ( $P>0.05$ ) compared with the baseline measurements.

### **Conclusions**

For neovascular glaucoma due to ischemic retinopathies, intravitreal bevacizumab may be therapeutically helpful to reduce iris neovascularization, to decrease intraocular pressure and to stabilize the eye.