



Early aggressive treatment is indicated in selected glaucoma cases

The Science behind the Tip

In the **Early Manifest Glaucoma** Trial (EMGT)¹ patients treated had half of the progression risk of control patients. The magnitude of initial intraocular pressure (IOP) reduction was a major factor influencing outcome. Each higher (or lower) millimeter of mercury of IOP on follow-up was associated with an approximate 10% increased (or decreased) risk of progression. Progression was also increased with higher baseline IOP, exfoliation, bilateral disease, worse mean deviation, older age, as well as frequent disc hemorrhages during follow-up.

According to the **Advanced Glaucoma** Intervention Study (AGIS)² progression can be rapid for some patients, and our challenge as ophthalmologists is to identify and to treat those patients more aggressively. Low intraocular pressure was associated with reduced progression of visual field defects, but in general glaucoma patients must still be treated individually.

Conclusion: In some patients, glaucoma progression can be rapid. Early aggressive treatment may be indicated when:

1. Presenting IOP is high
2. Advanced glaucomatous damage is documented at presentation
3. Advanced rate of glaucomatous damage progression is documented during follow-up
4. Central vision loss is expected within lifetime
5. Risk factors such as exfoliation or advanced glaucoma in the second eye, are present
6. Disc hemorrhages are repeatedly observed during follow-up

References

1. Leske MC, Heijl A, Hussein M, et al. Early Manifest Glaucoma Trial Group. Factors for glaucoma progression and the effect of treatment: the early manifest glaucoma trial. *Arch Ophthalmol.* 2003;121:48-56.
2. The AGIS Investigators. The Advanced Glaucoma Intervention Study (AGIS): 7. The relationship between control of intraocular pressure and visual field deterioration. *Am J Ophthalmol.* 2000;130:429-40.