



### Consider trabeculectomy as initial treatment for newly diagnosed advanced primary open angle glaucoma (POAG)

#### ***The Science behind the Tip***

IOP control is of uttermost importance in advanced glaucoma to prevent blindness. The EGS guidelines recommend IOP in the low teens, e.g. 10-12mmHg may be needed in more advanced cases to prevent vision loss. A Cochrane review concluded that trabeculectomy offers superior pressure reduction compared to medications at the cost of eye comfort but that data from advanced glaucoma is lacking<sup>1</sup>.

The recently published Treatment of Advanced Glaucoma Study (TAGS) randomised 453 patients with newly diagnosed advanced POAG to either trabeculectomy or medical treatment<sup>2</sup>. Trabeculectomy resulted in a sustained greater pressure drop with a final mean IOP after two years of 12.4±4.7mmHg and 15.1±4.8mmHg, in surgery and medication group, respectively. 75% of patients were free of medications after surgery. Despite lower IOP and fewer medications in the trabeculectomy arm there was no difference in visual fields and quality of life after two years.

The TAGS is the first randomised clinical trial comparing medications and surgery as first-line treatment of advanced POAG. The study provides scientific evidence that supports the efficacy and safety of trabeculectomy as initial treatment of advanced POAG. However, as in the Collaborative Initial Glaucoma Treatment Study longer follow-up may be needed to show an effect on glaucoma progression<sup>3</sup>.

#### ***References***

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- 2) King AJ, Hudson J, Fernie G, et al. Primary trabeculectomy for advanced glaucoma: pragmatic multicentre randomised controlled trial (TAGS). BMJ. 2021;373:n1014.
- 3) Heijl A, Leske MC, Bengtsson B, et al. Reduction of Intraocular Pressure and Glaucoma Progression: Results From the Early Manifest Glaucoma Trial. Archives of Ophthalmology.2002;120:1268-1279.
- 4) Musch DC, Gillespie BW, Lichter PR, Niziol LM, Janz NK, CIGTS Study Investigators. Visual field progression in the Collaborative Initial Glaucoma Treatment Study the impact of treatment and other baseline factors. 2009;116:200-207.