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## Trabectome vs. iStent in moderate open-angle glaucoma-single surgery and its outcome

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**Aim:** To compare the safety and efficacy profile after combined micro-incision cataract surgery (MICS) and micro-invasive glaucoma surgery (MIGS) with the ab interno trabeculectomy (Trabectome®) versus iStent® inject devices in patients with open-angle glaucoma (OAG) and cataract.

**Method:** This retrospective comparison study included 60 eyes which were treated with combined MICS and ab interno trabeculectomy (group I, Trabectome®) (30 eyes) and iStent® inject devices (group II, GTS 400) in 30 eyes. Primary outcome measures included intraocular pressure (IOP) and glaucoma medication after 6 weeks, 3, 6 and 12 months follow-up. Secondary outcome measures were number of postoperative interventions, complications and best-corrected visual acuity (BCVA).

**Results:** Mean preoperative IOP decreased from 23.3±3.7 mmHg in group I and 22.8±4.1 mmHg in group II to 14.8±3.6 mmHg for trabectome and 16.8±2.3 mmHg for iStent inject, respectively at 12 months after surgery. When percentage drop was assessed, group I (trabectome) had 37.17% drop in IOP, while group II had 22.93% drop in IOP. No vision-threatening complications such as choroidal effusion, choroidal hemorrhage, or infection occurred. In each group, 2 eyes developed cystoid macular edema which responded to topical treatment. In each group trabeculectomy had to be performed in one eye due to insufficient IOP lowering effect.

**Conclusions:** Ab interno trabeculectomy and iStent® inject were both effective in lowering IOP with a favorable and comparable safety profile in a comparative study over a 12-months follow-up in OAG. Trabectome appears to have a greater percent drop in IOP than iStent in this study. However, longer follow-up of these patients will be necessary to determine long-term outcomes and to evaluate significant differences.

### Biography

Tarun Sharma is a Consultant Ophthalmic Surgeon at Worcestershire Acute NHS Trust since 2007. He has done his Ophthalmology training from Midland Eye Centre, Oxford Eye Hospital and Moorfields Eye Hospital in UK. He has special interest in routine and complex cataract surgery. He has also delivered lectures at Royal College meetings and abroad (Europe, USA and Asia) on the subjects of glaucoma management and modern glaucoma surgery, as well as on cataract surgery in patients with glaucoma. He has launched the Worcestershire Glaucoma Support Group, which provides education and support to patients with glaucoma enabling them to achieve better outcomes. He has won many awards in Ophthalmology for best patient education and teaching initiative. He has also worked with the Department of Health UK and McKinsey USA to help in the development of national policies for UK eye care.

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