

Ab-externo MicroShunt versus Trabeculectomy in Primary Open-Angle Glaucoma: 1-year Results from a 2-year Randomized, Multicenter Study

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OBJECTIVE: To compare the effectiveness and safety of the MicroShunt versus trabeculectomy in patients with primary open-angle glaucoma (POAG) .

DESIGN: One-year results from a 2-year, prospective, randomized, multicenter, non-inferiority study (NCT01881425) conducted in the USA and Europe.

PARTICIPANTS: Eligible patients were aged 40-85 years with intraocular pressure (IOP) ≥ 15 and ≤ 40 mmHg and m

INTERVENTION: Patients were randomized 3:1 to undergo stand-alone MicroShunt implantation or trabeculectomy, both performed with adjunctive Mitomycin C (0.2 mg/mL for 2 minutes) .

MAIN OUTCOME MEASURES: The primary effectiveness endpoint was surgical success, defined as $\geq 20\%$ reduction

RESULTS: Overall, 395 (MicroShunt) and 132 (trabeculectomy) patients were randomized (mean Humphrey visual field mean deviation -12.34 dB) . At year 1, probability of success was lower in the MicroShunt group compared with the trabeculectomy group (53.9% versus 72.7%, respectively;

CONCLUSIONS: Probability of success was lower with MicroShunt compared with trabeculectomy. Though reductions in IOP and glaucoma medications over 1 year were observed in both groups, the trabeculectomy group had a lower mean IOP on fewer medications.

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