

Three-Year Outcomes of the First UK Series of MINInject Supraciliary Implants in Medically Uncontrolled Glaucoma: A Retrospective Real-World Analysis

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Purpose:

This study evaluates the 3-year real-world efficacy and safety of the MINInject supraciliary implant in reducing intraocular pressure and medication use in medically uncontrolled glaucoma.

Methods:

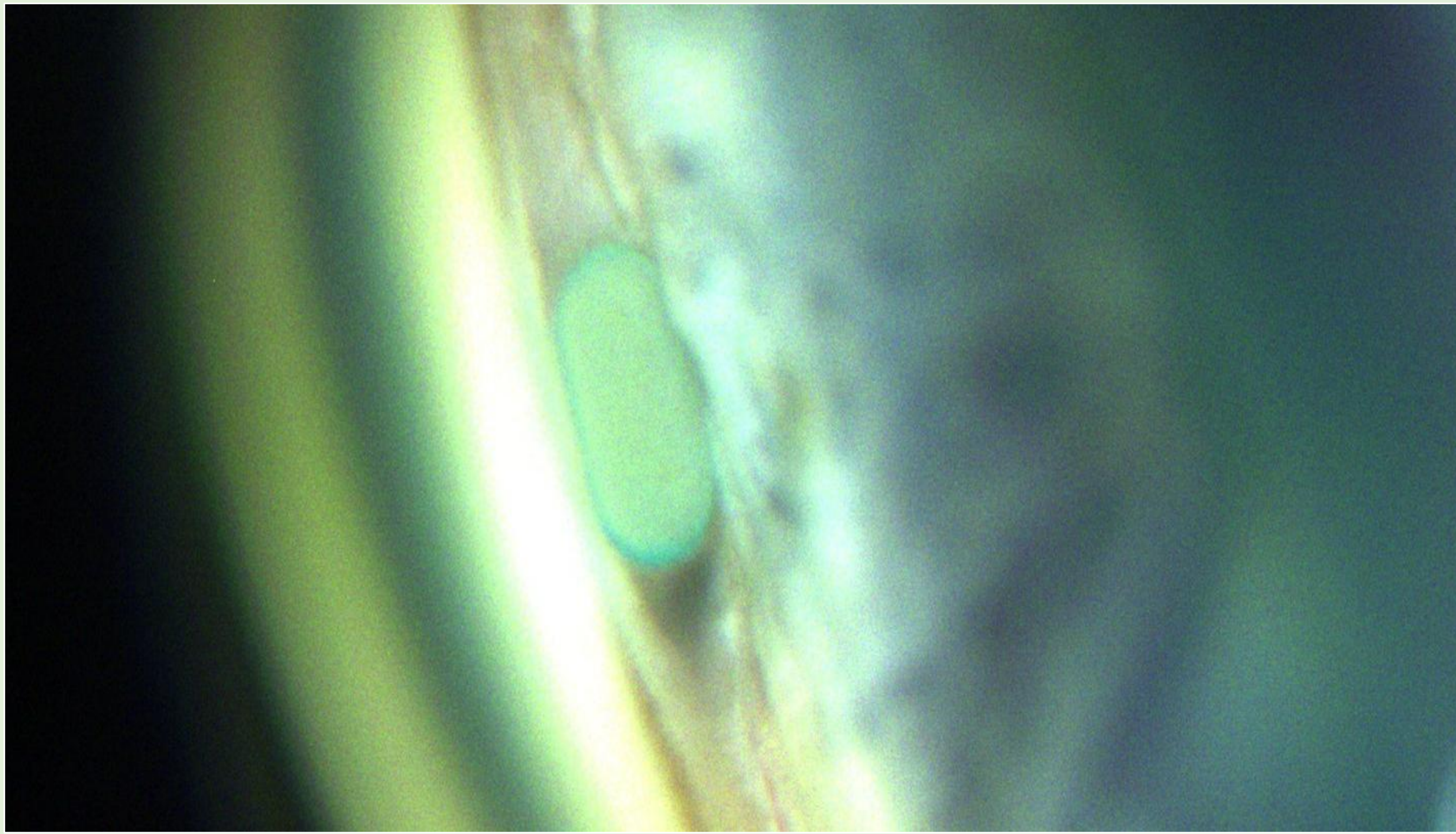
This retrospective single-centre study included 24 eyes with medically uncontrolled glaucoma treated with the MINInject implant in Colchester Eye Centre, either standalone (n=6) or combined with phacoemulsification (n=18). Mean intraocular pressure (IOP), medication use, drop-free status, and complications were recorded through 36 months. Statistical analysis used paired and independent t-tests (p<0.05 significant).

Results:

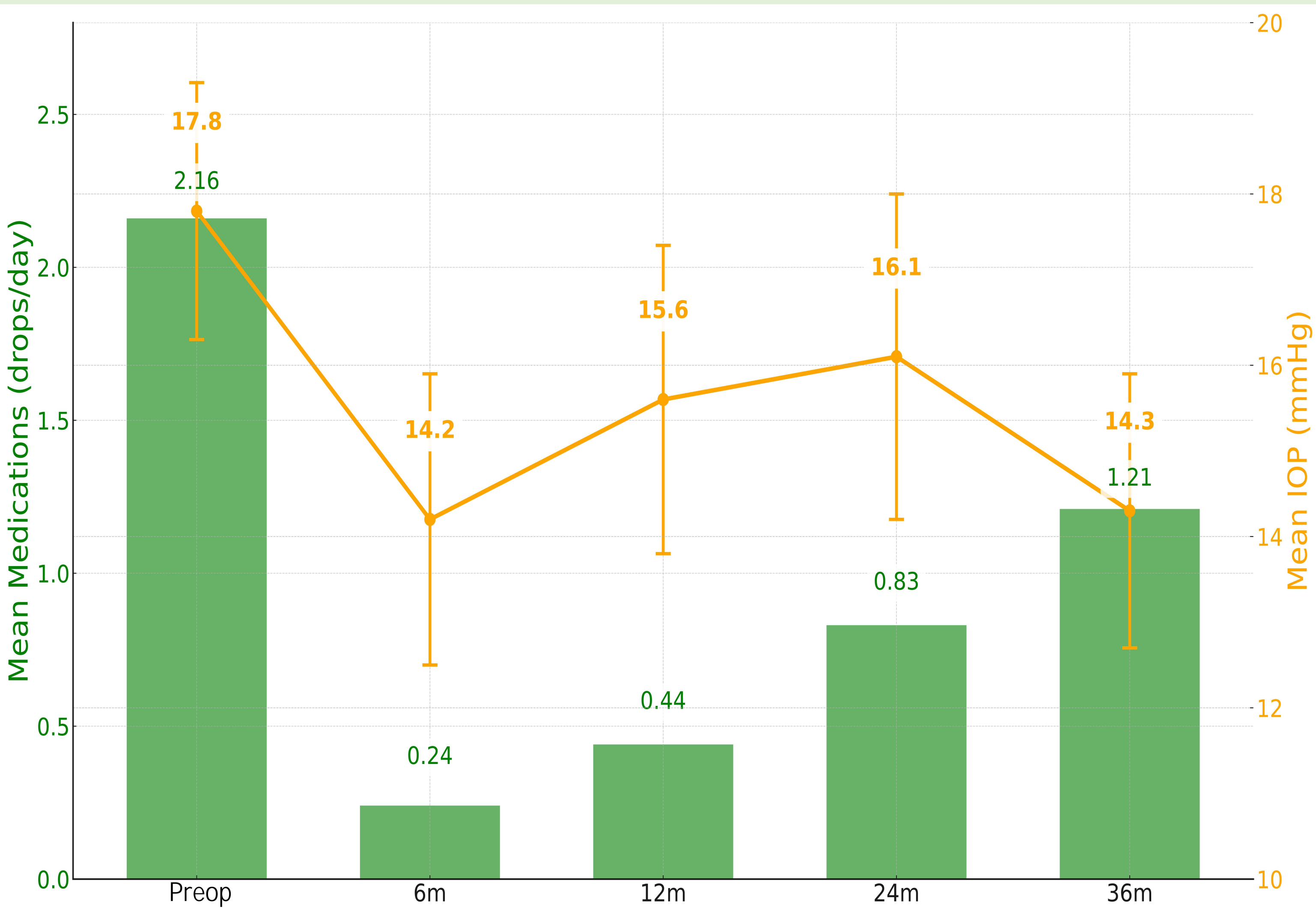
Mean IOP decreased from 17.8 to 14.3 mmHg (–19.5%, p = 0.006), and medication use declined from 2.16 to 1.21 drops/day (–44.1%, p < 0.001) by 36 months. Drop-free rates were 33.3% at 36 months. No patients required further glaucoma surgery. Patients with POAG (n = 16) achieved the greatest reductions in IOP (–20.1%) and medications (–51.2%), followed by PACG (n = 7; –14.8%, –25.0%), and IOP reduction was greatest in advanced glaucoma (–36.5%) and medication reduction in early-stage disease (–63.3%). These differences were not statistically significant. In combined procedures (n = 18), IOP reduced from 18.2 to 14.6 mmHg (p = 0.029), and medications from 2.05 to 1.06 (p = 0.003). Standalone procedures (n = 6) showed similar results. Four patients developed hyphema; three resolved spontaneously, and one required anterior chamber washout.

Conclusions:

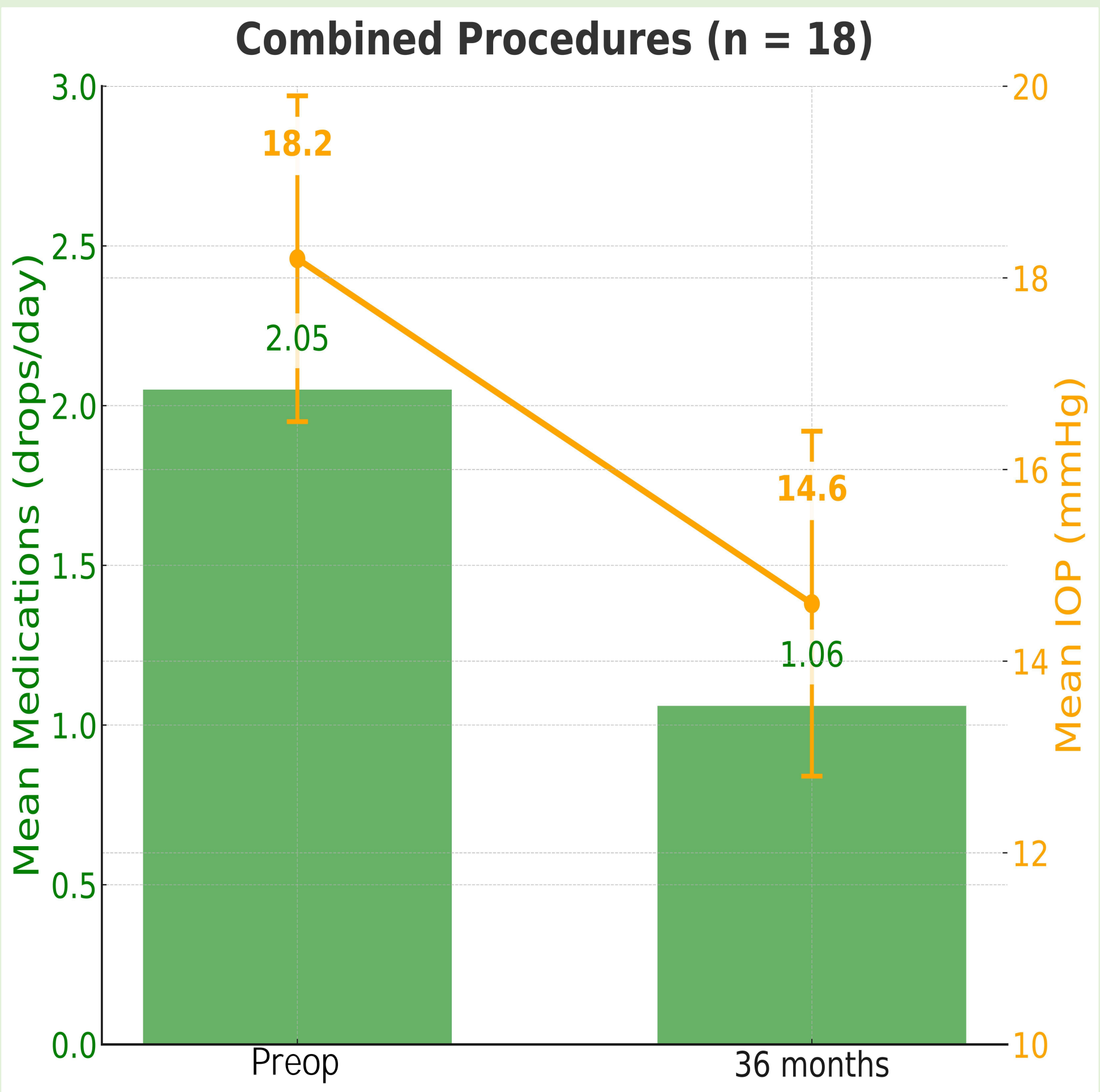
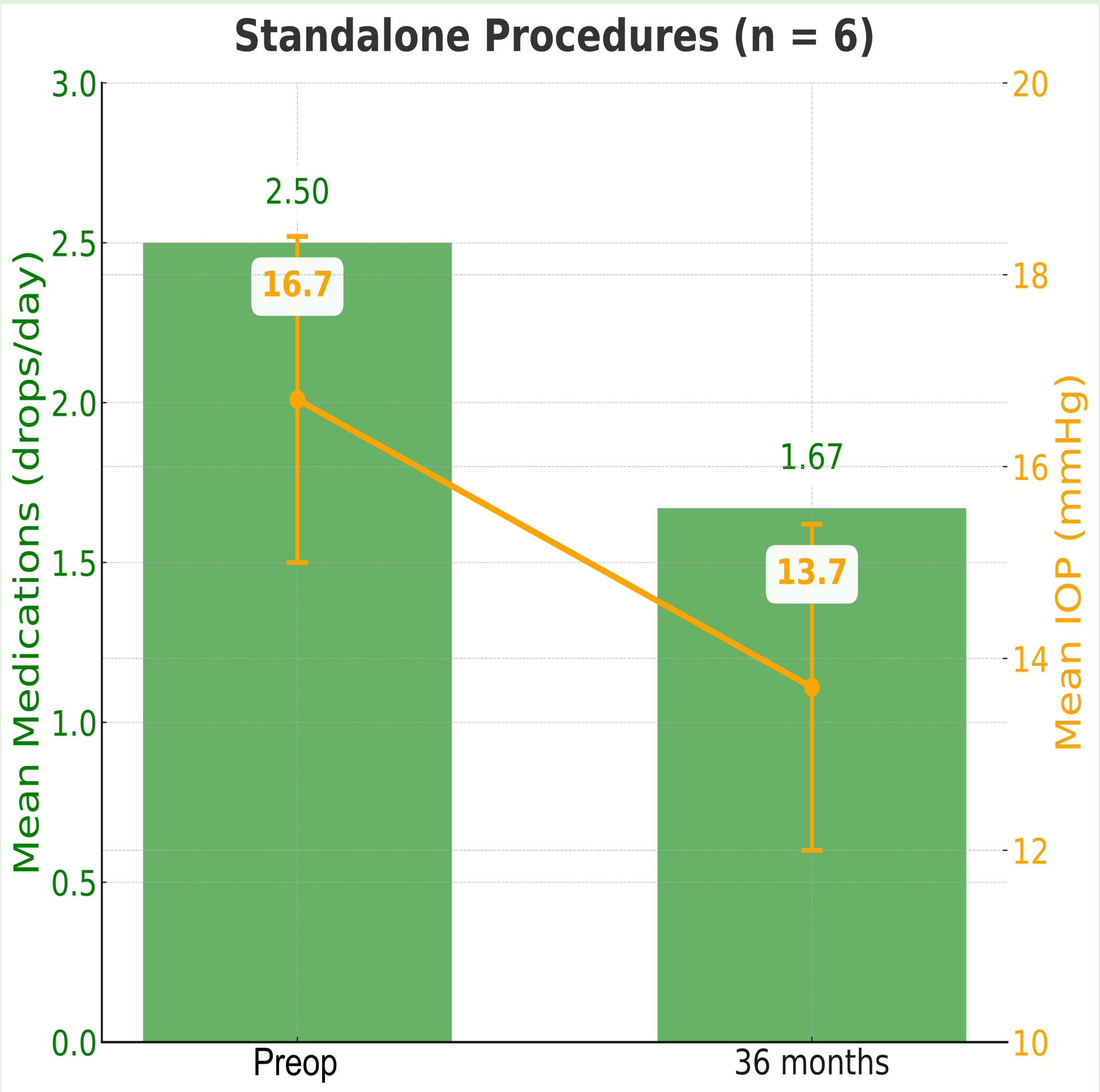
The MINInject supraciliary implant provided sustained, statistically significant reductions in intraocular pressure and medication use over 36 months, with one-third of patients drop-free and no reoperations required. Both combined and standalone procedures achieved comparable outcomes, and safety was excellent, limited to transient hyphema. Although this was a retrospective single-centre study with a small sample size, these real-world results support MINInject as a safe, effective, and durable MIGS option for medically uncontrolled glaucoma.



Gonioscopic View of MiniInject Supraciliary Implant in Situ



Mean IOP (-19.5%) and Medication (-44.1%) use over 36 Months



Comparison of Combined and Standalone MINInject Surgery over 36 Months