Efficacy and Safety of Ab-Interno Canaloplasty in Post-Keratoplasty Patients: 3-Year Results

Poster

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Purpose: To evaluate the effectiveness and safety of ab-interno canaloplasty (ABiC) for managing intraocular pressure (IOP) in patients following keratoplasty over a three-year period.

Methods: This retrospective analysis focused on post-keratoplasty patients treated with ABiC with the iTrack microcatheter (Nova Eye Medical, Fremont, CA, USA) at a single institution. The study assessed the procedure's impact on IOP control, graft survival, and reliance on topical hypotensive medications, with additional observation for any postoperative complications.

Results: ABiC was performed in 16 post-keratoplasty (7 penetrating keratoplasty and 9 endothelial keratoplasty) eyes. Preoperative mean IOP of 25.8±7.2 mmHg was significantly reduced to 13.4±2.9 mmHg ($p<0.001$) at 1 year postoperatively and maintained at 13.1±3.9 mmHg ($p=0.009$) 3 years postop. Mean number of glaucoma medications was 3.50±1.71 at baseline, 2.79±1.25 at 1 year ($p=0.107$), and 2.50±1.24 at 3 years postoperatively ($p=0.088$). Eight eyes maintained IOP ≤ 15 mmHg, and 10 eyes maintained ≥ 20% IOP reduction at 3 years. Mean IOP and medication reduction from baseline at 3 years was -49.2% and -28.6%, respectively. Graft clarity was preserved in all eyes, with one case of late graft failure.

Conclusion: ABiC appears to be an effective and safe surgical intervention for sustained IOP reduction in post-keratoplasty patients, with a favorable impact on graft survival and a low incidence of complications over a three-year follow-up period.

Disclosures: None

ASCRS ANNUAL MEETING
APRIL 25–28, 2025 | LOS ANGELES, CA