

Authors: Norbert Koerber (Germany);
Simon Ondrejka (Germany)

Sunday, 08 September 2024
9:12 - 9:18 AM
Free paper podium 3

6-Year Efficacy and Safety of iTrack Ab-interno Canaloplasty in Primary Open-Angle Glaucoma

Purpose: To evaluate the long-term effectiveness of iTrack (Nova Eye, Inc., Fremont, USA) ab-interno canaloplasty in reducing intraocular pressure (IOP) and glaucoma medications in patients with primary open-angle (POAG) and pseudoexfoliative (PEX) glaucoma.

Setting: Eye clinic in Köln, Germany.

Methods: In this retrospective monocentric consecutive case series, 27 eyes of 22 patients, with a mean age of 77.3 ± 5.8 years were treated with ab-interno canaloplasty performed as a standalone procedure or combined with cataract surgery and followed for up to 6 years (no medications washout). The iTrack was used to circumferentially catheterize and viscodilate Schlemm's canal over 360°. Primary efficacy endpoints included intraocular pressure (IOP) and number of glaucoma medications at 12-24-36-48-60-72 months after surgery.



Results: Twenty-seven eyes of 22 patients, with a mean age of 76.6 ± 6.5 years were recruited. Mean IOP was statistically significantly reduced from 19.8 ± 5.2 mmHg ($n=27$) at baseline to 14.6 ± 3.3 mmHg at the 6-year follow-up ($n=18$; $p<0.001$). The number of glaucoma medications was statistically significantly reduced from 1.9 ± 1.00 at baseline to 0.9 ± 0.9 at 6 years ($n=18$; $p=0.005$). At all timepoints there was no statistical difference between POAG ($n=16$) and PEX ($n=11$) eyes, nor between standalone ($n=4$) or combined with phaco ($n=23$) procedures. At 72 months, the mean percentage reduction in IOP is 26% and in medication is 58%. No serious complications were recorded.

Conclusion: iTrack ab-interno canaloplasty performed as a standalone procedure or in combination with cataract surgery significantly reduced IOP and medications in patients with POAG up to 6 years after the procedure. To the authors' knowledge, this is the longest ab-interno canaloplasty follow up available in the literature.

Financial disclosure: The authors have no financial or proprietary interest in any material or method mentioned. Prof. Koerber and dr. Ondrejka are investigators for the ongoing CATALYST clinical study (Prof. Koerber is the Principal Investigator) which uses the product mentioned in this manuscript (iTrack, Nova Eye, Inc.).