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Multicenter Canaloplasty Data Registry – Outcomes of Ab-Interno Canaloplasty Across Different Glaucoma Types and Severity

Purpose: To investigate the efficacy and safety of ab-interno canaloplasty in reducing IOP and number of medications across all grades of glaucoma severity and types of glaucoma.

Setting: Collating data from prospective multicenter cloud-based database (iTGDR, part of the International Glaucoma Surgery Registry – IGSR), real-world study.

Methods: Glaucoma patients undergoing canaloplasty with the iTrack or iTrack Advance canaloplasty device (Nova Eye Inc., Fremont, USA) were included. Mean reduction in IOP and number of medications (meds) were the primary endpoints and eyes were grouped based on baseline glaucoma severity (early, less than -6dB; moderate, -6dB to -12dB; advanced -12dB to -20dB; severe, greater than 20dB) and glaucoma type.



Results: 395 eyes have been enrolled up to January 2024. IOP and meds for open angle glaucoma (OAG) at preop vs 6M: 17.5 ± 5.5 (n=287) vs 13.5 ± 3.6 (n=155; -23.1%) and 2.1 ± 1.2 vs 1.1 ± 1.3 (-46.4%); for secondary OAG: 19.0 ± 5.5 (n=24) vs 12.4 ± 3.0 (n=15; -34.8%) and 1.8 ± 1.0 vs 0.7 ± 1.2 (-63.4%); for ocular hypertension: 21.4 ± 8.3 (n=29) vs 15.9 ± 2.7 (n=9; -25.7%) and 1.3 ± 1.0 vs 0.8 ± 1.3 (-41.8%); for primary angle closure: 20.9 ± 6.3 (n=47) vs 13.7 ± 3.5 (n=32; -34.6%) and 2.0 ± 1.5 vs 0.8 ± 1.3 (-58.4%). IOP for early, moderate, advanced, and severe groups at preop was 17.8 ± 5.2 (n=184), 17.6 ± 5.4 (n=66), 16.6 ± 6.2 (n=23), 15.8 ± 5.2 (n=24); at 6M 13.9 ± 3.1 (n=110), 12.8 ± 3.1 (n=38), 11.9 ± 2.7 (n=11), 14.2 ± 7.0 (n=15), respectively.

Conclusion: Canaloplasty via an ab-interno technique was able to effectively reduce IOP and medication use across all types and stages of glaucoma.

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