



Trabectome-Mediated Ab Interno Trabeculectomy for Steroid-Induced Glaucoma



UPMC LIFE CHANGING MEDICINE

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Purpose

To evaluate outcomes of ab-interno trabeculectomy in cases of steroid-induced glaucoma.

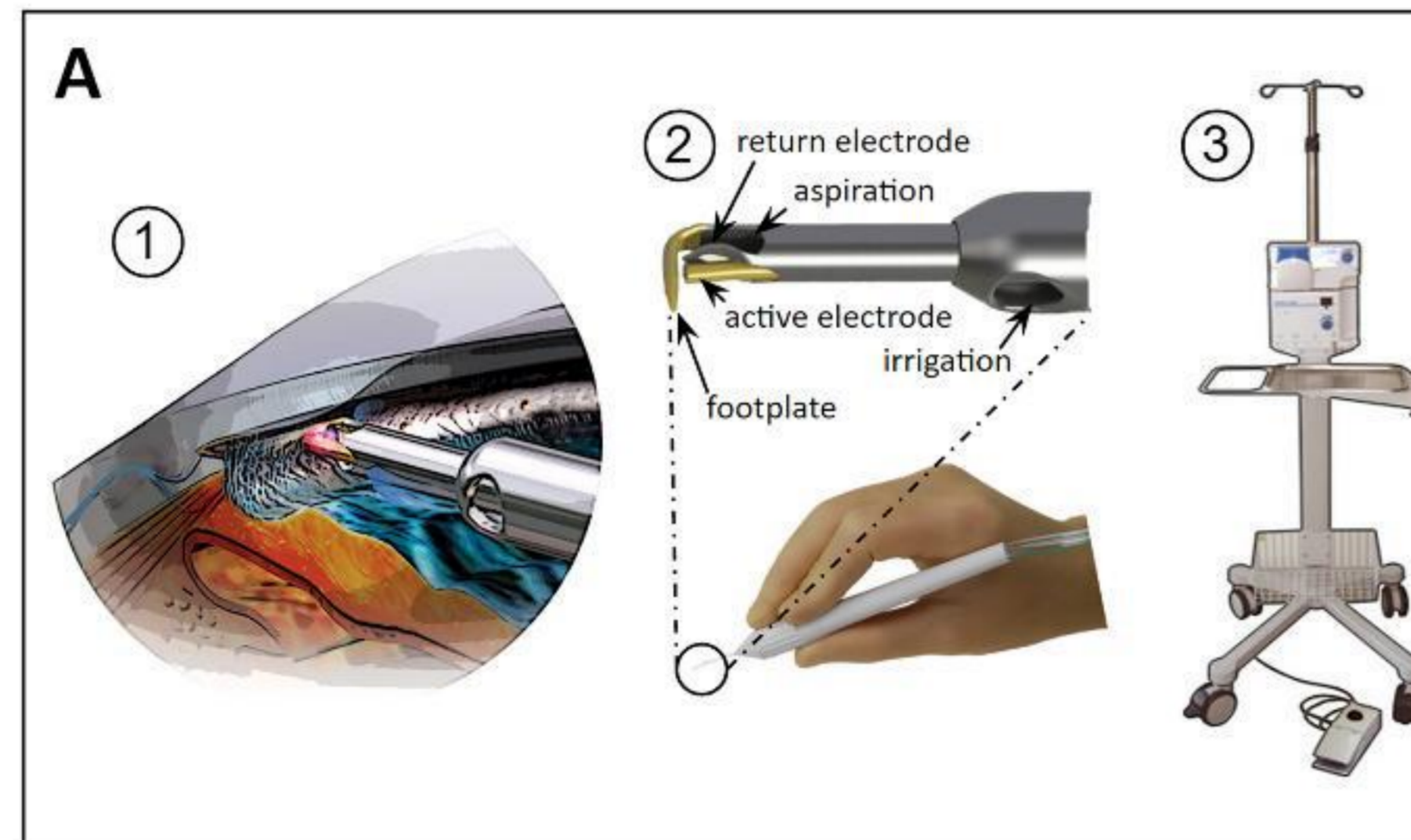
Patients and Methods

All cases diagnosed with steroid glaucoma were included. Cases that had concurrent surgery other than cataract surgery and/or no follow-up records were excluded. The main outcomes measure was the changes of IOP, numbers of medications and surgical success. Kaplan-Meier was used for survival analysis with success defined as IOP ≤ 21 mmHg, at least 20% IOP reduction from baseline for any two consecutive visits after 3 months and no secondary glaucoma surgery. Secondary outcomes included complication rate, secondary procedures.

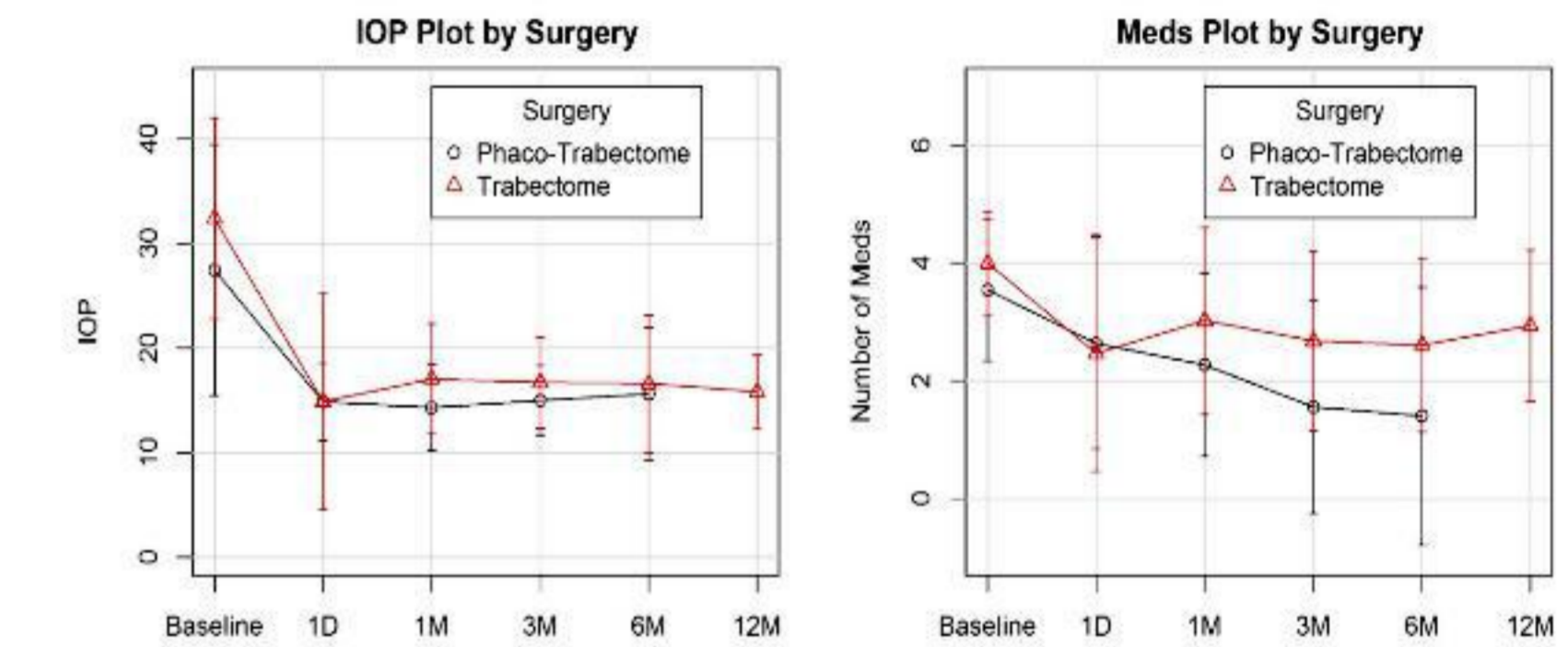
Results

A total of 69 cases were included in this study after applying inclusion and exclusion criteria. Mean IOP was reduced from a baseline of 31.6 ± 10.1 mmHg to 15.8 ± 3.5 mmHg at 12 months (p < 0.01*), while number of glaucoma medication was reduced from 3.9 ± 0.9 to 2.9 ± 1.3 (p = 0.12). Survival rate was 86% at 12 months with 4 cases required additional glaucoma surgery.

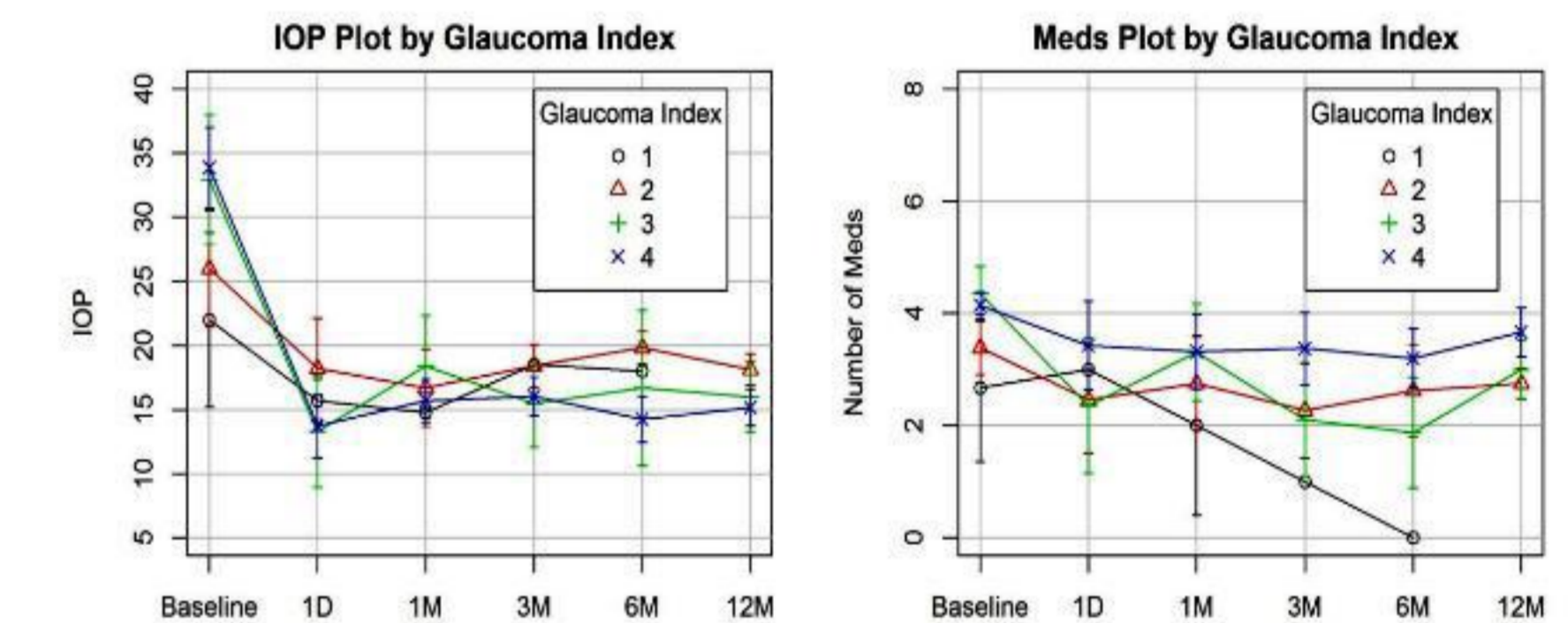
Key Steps of Surgical Technique



(3) Types of surgery: For trabectome plus phaco, the mean IOP decreased by 43% from 27.5 ± 12 mmHg and medications from 3.5 ± 1.2 to 1.4 ± 2.2. For Trabectome alone, the mean IOP decreased 51% from 32.4 ± 9.6 mmHg and medications from 4 ± 0.9 to 2.9 ± 1.3.

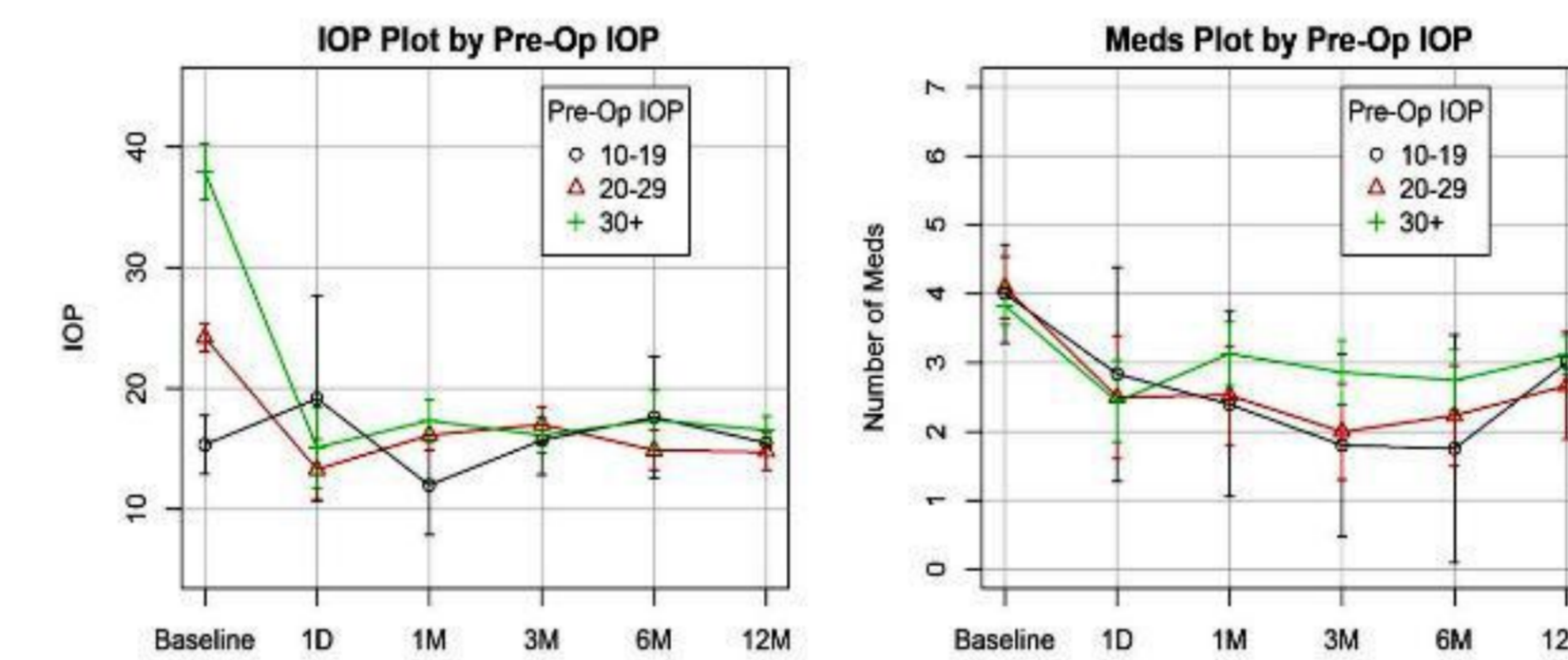


(4) Glaucoma Index: Percentage of IOP reduction increases as GI increases. Greatest IOP reduction (55%) was found in GI 4 (most severe) and 18% in GI 1 (least severe). However, greatest medication reduction (100%) was found in GI1 and least (9%) in GI4.

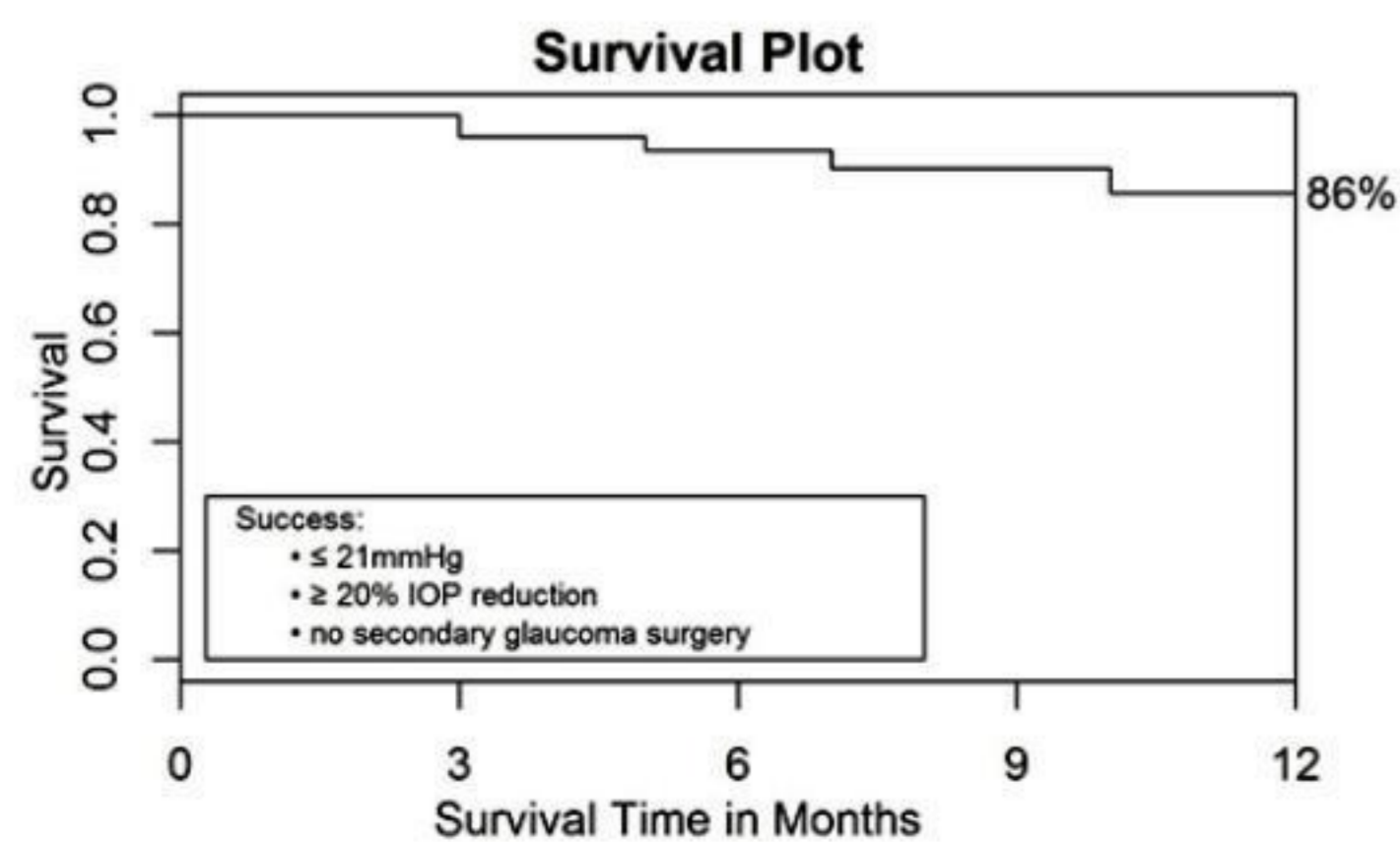
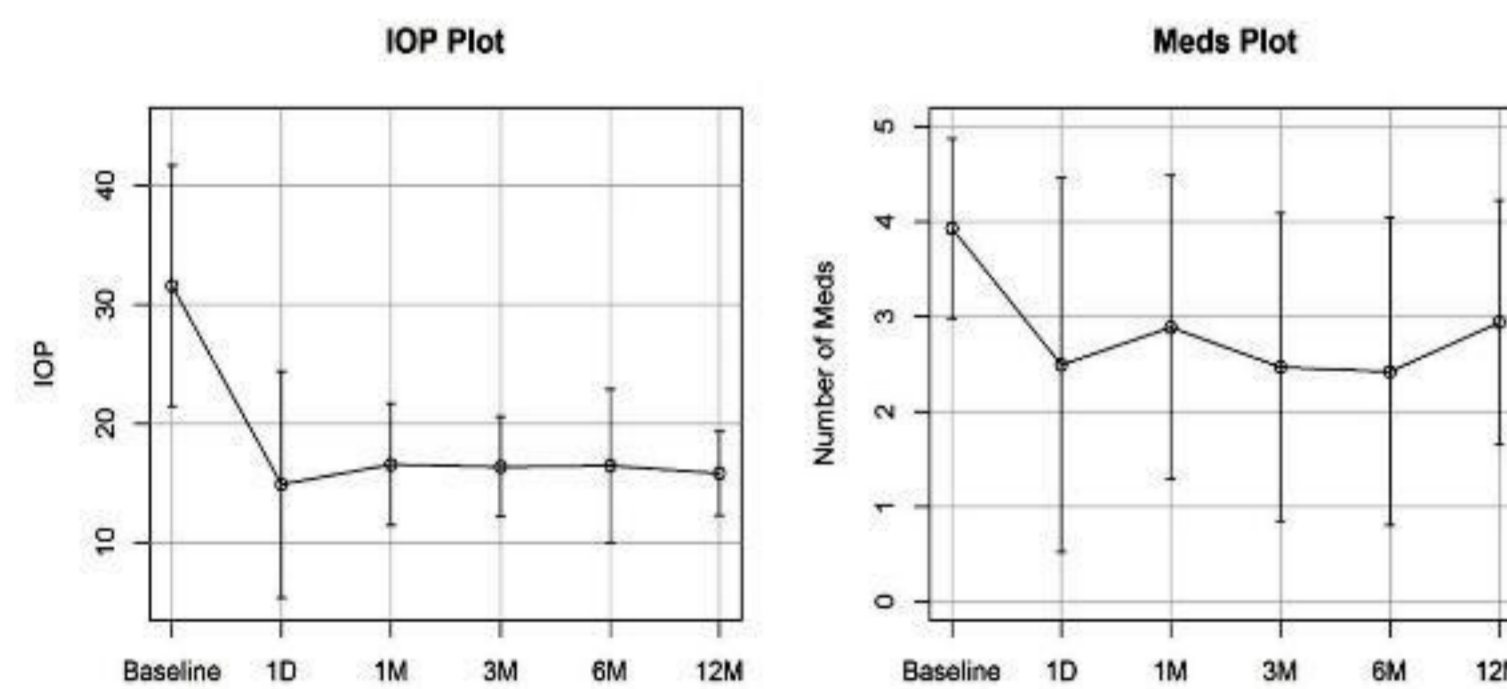
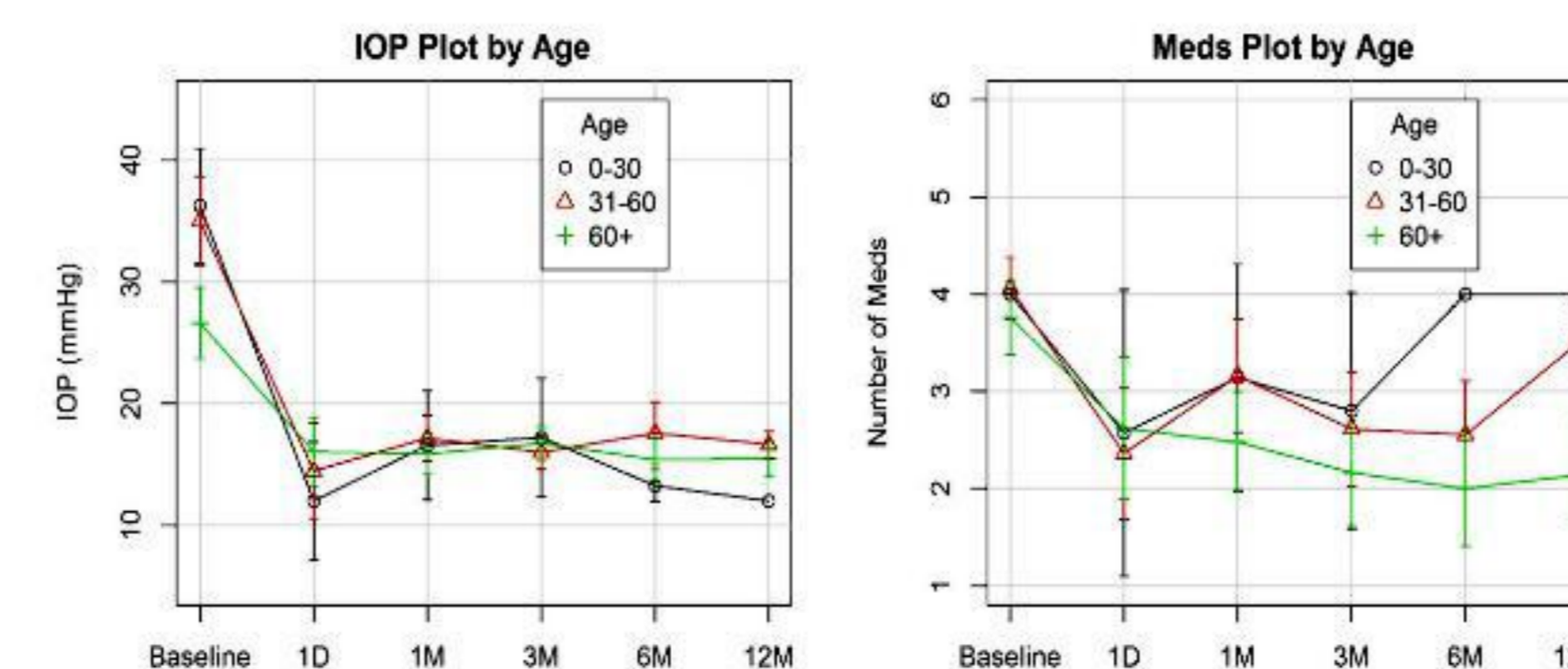


Subgroup Analysis

(1) preoperative IOP: Highest IOP reduction (56%) was found in the group with highest preoperative IOP (> 30 mmHg), but greatest number of meds reduction (34%) was found in the group with baseline IOP of 20-29 mmHg.



(2) Age: Young patients got the highest IOP reduction, but greatest meds reduction (45%) was found in oldest age group (>60 years old).



Conclusion

Trabectome reduced the IOP by a mean of 50% in 69 cases of steroid-induced glaucoma on 1 less medication after 1 year, suggesting trabectome with or without cataract surgery is a safe and effective surgical option for persistent steroid-induced glaucoma.

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Disclosures

NAL: trabectome trainer

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