

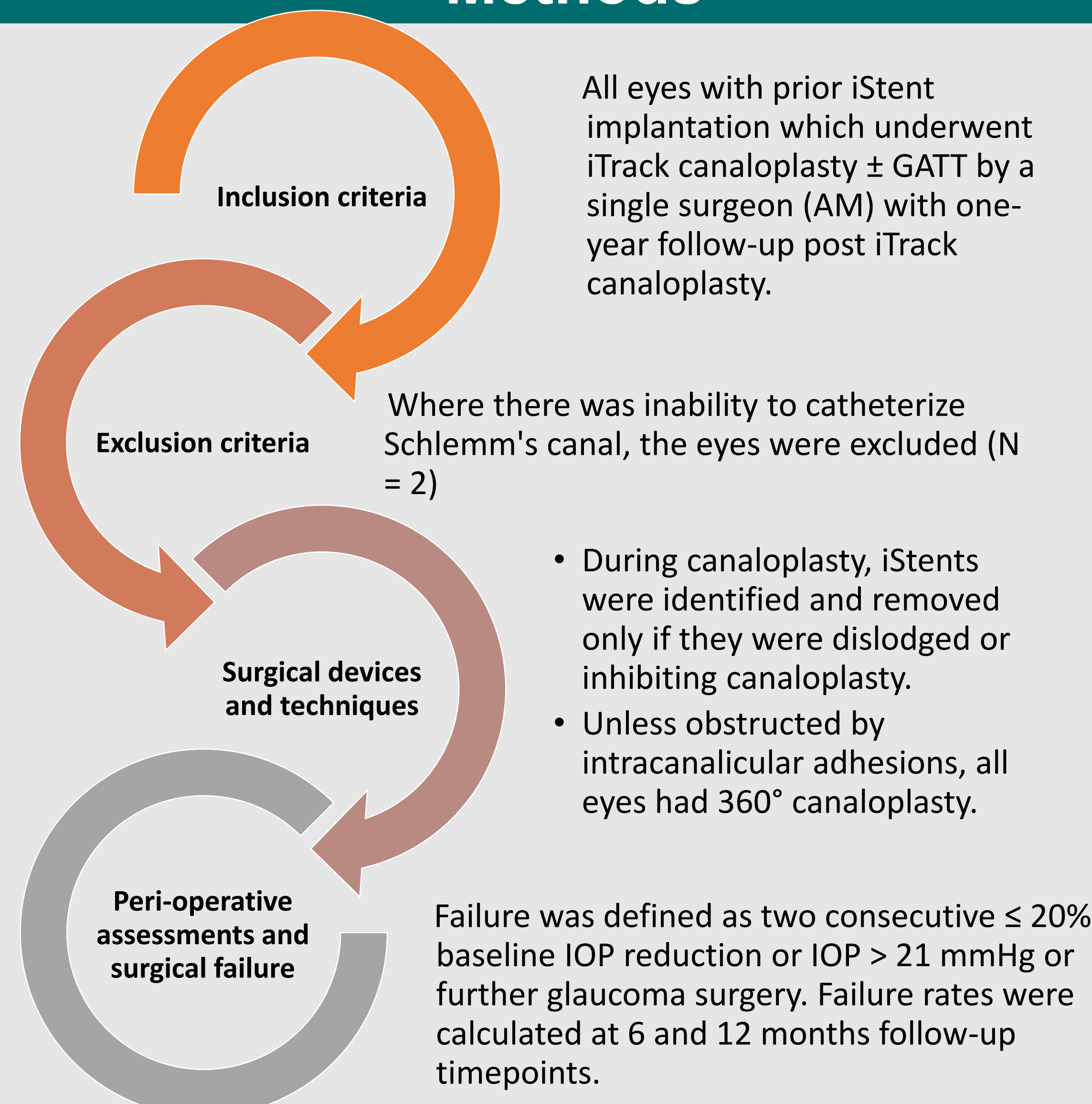
MIGS after MIGS: one year outcomes of iTrack canaloplasty with or without trabeculotomy in eyes with prior iStent trabecular micro-bypass implantation.

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Introduction

- ❖ Schlemm's canal-based surgery to enhance the distal outflow pathway following initially successful trabecular micro-bypass stents may provide a complementary mechanism to further lower IOP or delay the need for incisional glaucoma surgeries.
- ❖ We present a case series of eyes that underwent two consecutive MIGS, the trabecular micro-bypass stent (iStent, Glaukos) followed by ab interno canaloplasty (ABiC) with or without goniotomy-assisted transluminal trabeculotomy (GATT) using the iTrack 250A (Nova Eye Medical).

Methods



Results

Patient demographics

- Eleven eyes were included in analysis. The mean age of patient was 71.6 years (range 39 to 85 years). Over half (55%) of patients were female and almost two-thirds (64%) were Caucasian.

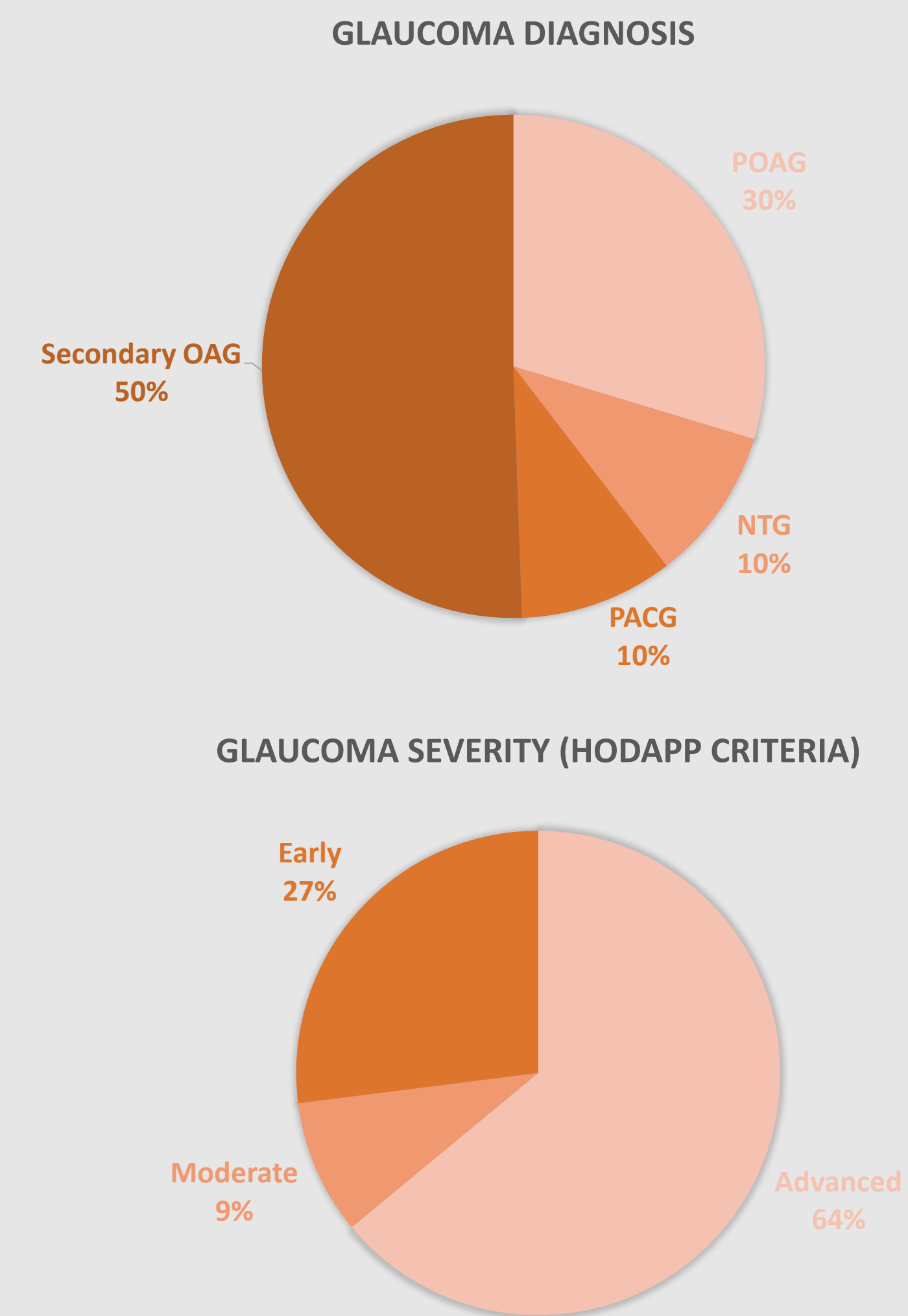


Figure 1: The pie charts demonstrate the proportion of eyes according to glaucoma diagnosis and severity.

Intraoperative iStent assessment and successful canaloplasty

- Three of 11 eyes had one G1 or both G2W iStents removed intraoperatively.
- The mean degree of successful canaloplasty was 316° (range 100°-360°).
- Eight of 11 (73%) eyes underwent GATT. Mean degrees of GATT was 195° (range 100°-270°).

IOP and medication outcomes

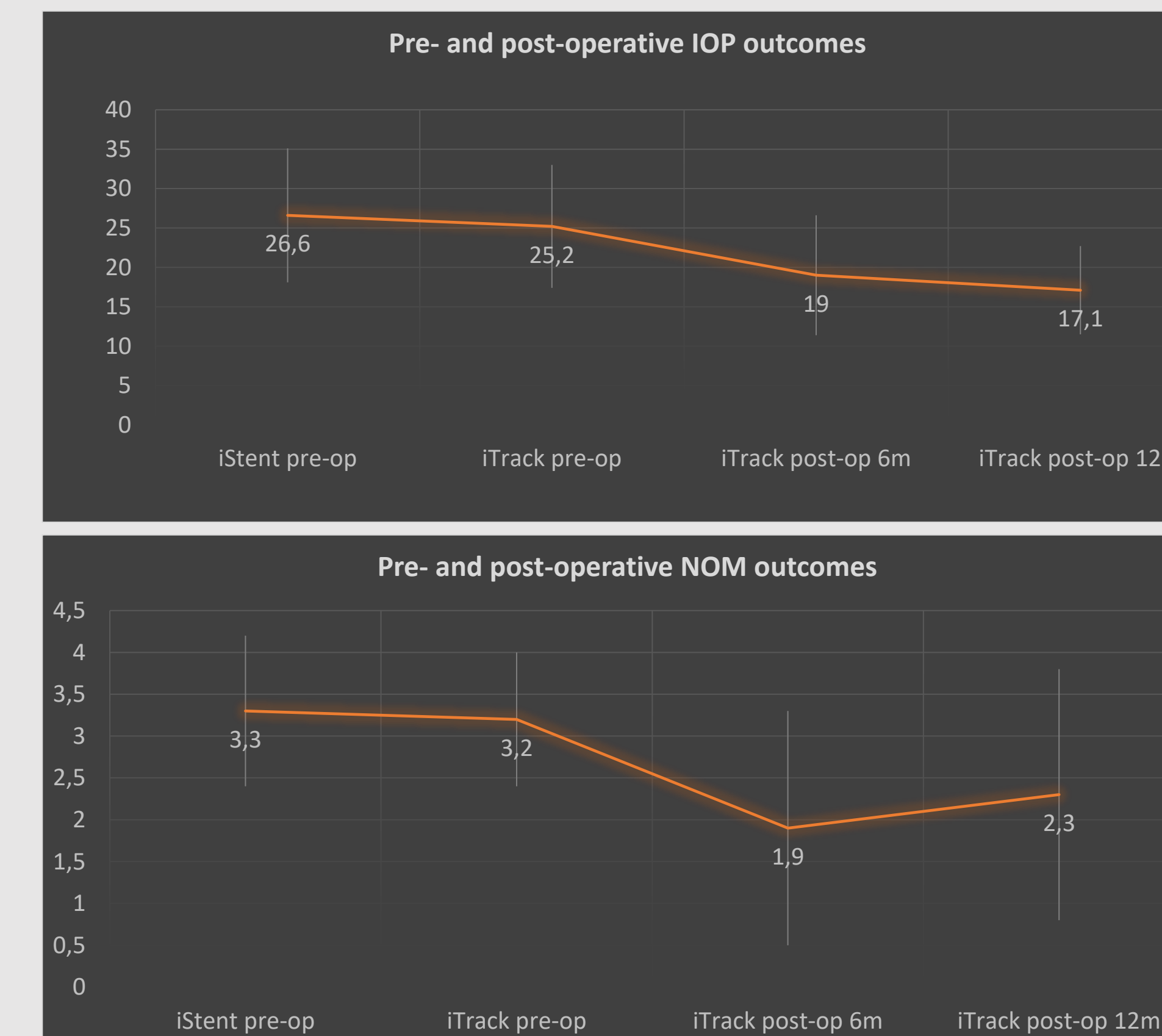


Figure 2: The graphs above demonstrate IOP and medication outcomes.

Surgical outcomes

- The mean follow-up period was 19.3 months.
- The mean time to failure for the iStent was 28.3 months (range 1 to 91 months).
- At 1-year follow-up, 3 eyes (27.3%) had failed. Two of the three eyes had further glaucoma surgery within 2 months. All three eyes underwent ABiC alone without GATT.
- Post-operative hyphaema was reported in 5 eyes (all of which underwent GATT). All cases of hyphaema resolved within the 4-week post-operative period.

Kaplan-Meier survival plot for iTrack canaloplasty ± GATT

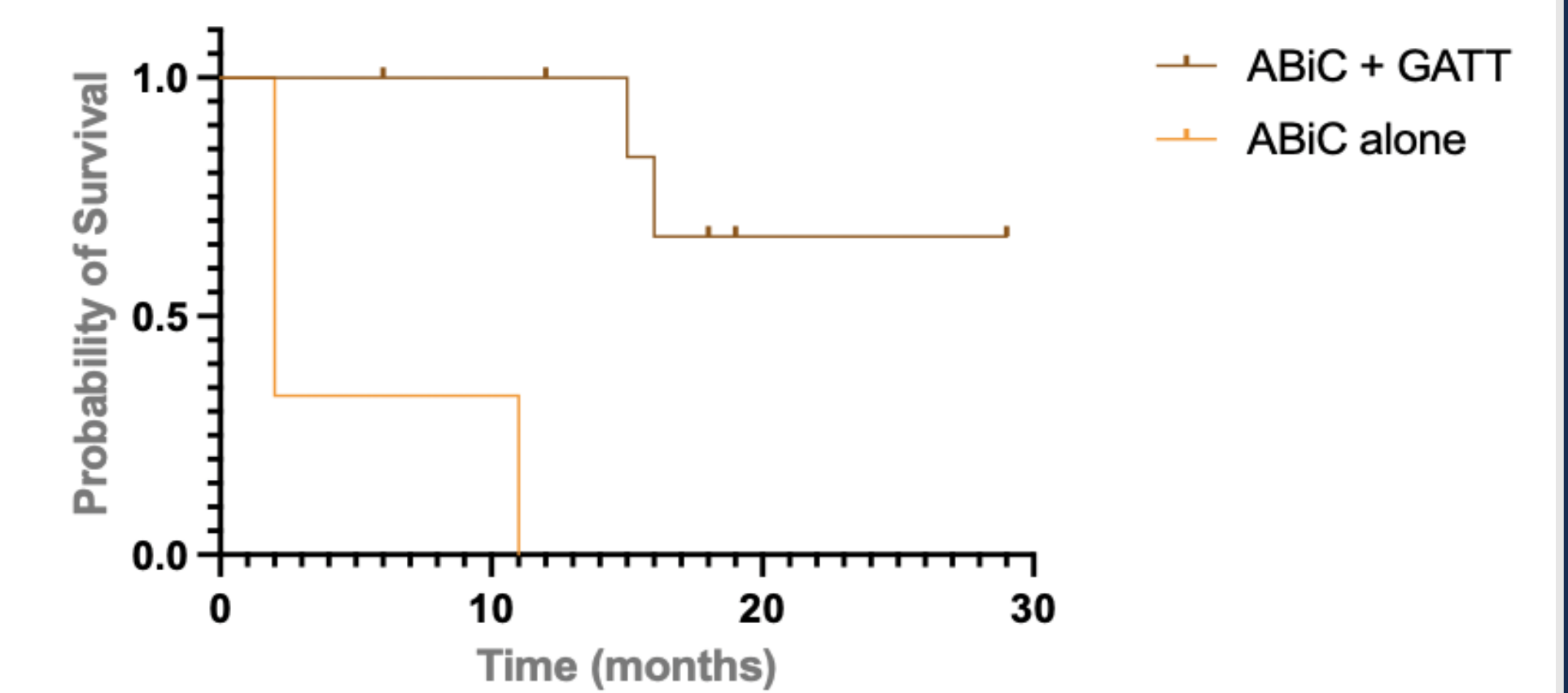


Figure 3: Kaplan-Meier graph indicating survival plot for the iTrack canaloplasty with and without GATT.

Discussion

- ❖ The surgical outcomes of this study appear to be comparable to that of primary ABiC ± GATT.
- ❖ We found that limited GATT may prolong the effect of iTrack surgery. There is limited but supporting evidence in literature to suggest this.
- ❖ This case series also suggest the potential value of quantifying the extent of canaloplasty and GATT. Evaluating these may be beneficial in predicting surgical outcomes.

Conclusion

For surgically treated glaucoma eyes where an existing iStent micro-trabecular bypass implant has been deemed to no longer achieve adequate IOP control, this case series suggests that an ABiC ± GATT procedure may provide an alternative to delay further surgery. This procedure using the iTrack system is safe and effective, and in selected patients, may achieve maximal treatment of the distal outflow pathway prior to traditional incisional glaucoma filtration surgeries.

References

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