

18-Month Outcomes of Combined Phacoemulsification & iStent Inject W

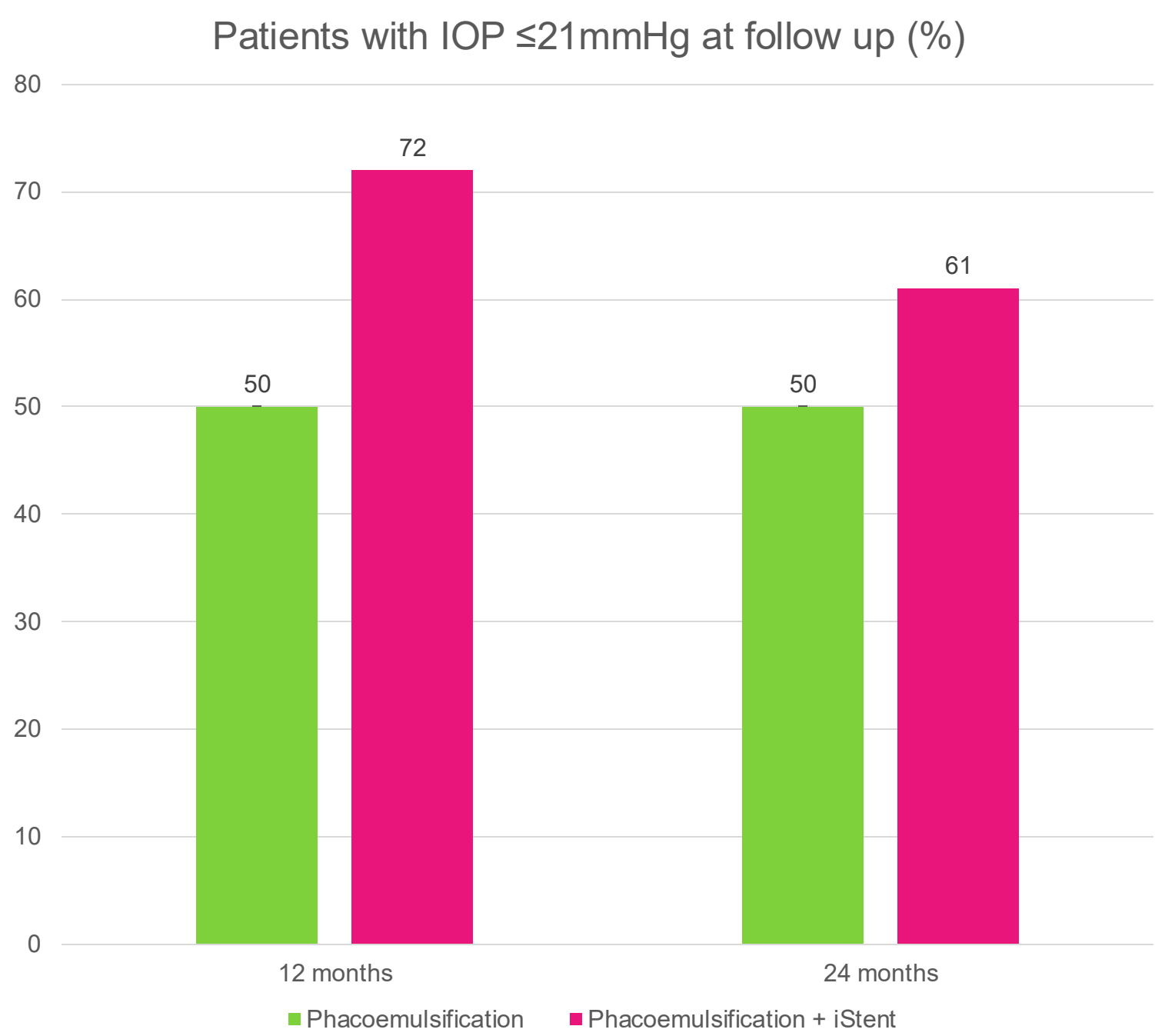
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Introduction

The iStent inject W, a second-generation trabecular micro-bypass stent, offers a minimally invasive approach to lowering intraocular pressure (IOP) in patients with open-angle glaucoma.

- NICE IPG 575 recommends combination with phacoemulsification surgery for IOP reduction.
- Ab-interno technique to enhance aqueous outflow via the trabecular meshwork.
- Mean IOP reduction of $8.4 \pm 3.6\text{mmHg}$
- At 12 months, 66% of combined phacoemulsification + iStent vs 48% of the phacoemulsification only group achieved $\geq 20\%$ IOP reduction.



Methods

Retrospective analysis of 18-month patient outcomes from surgeries performed from May 2022 to September 2023.

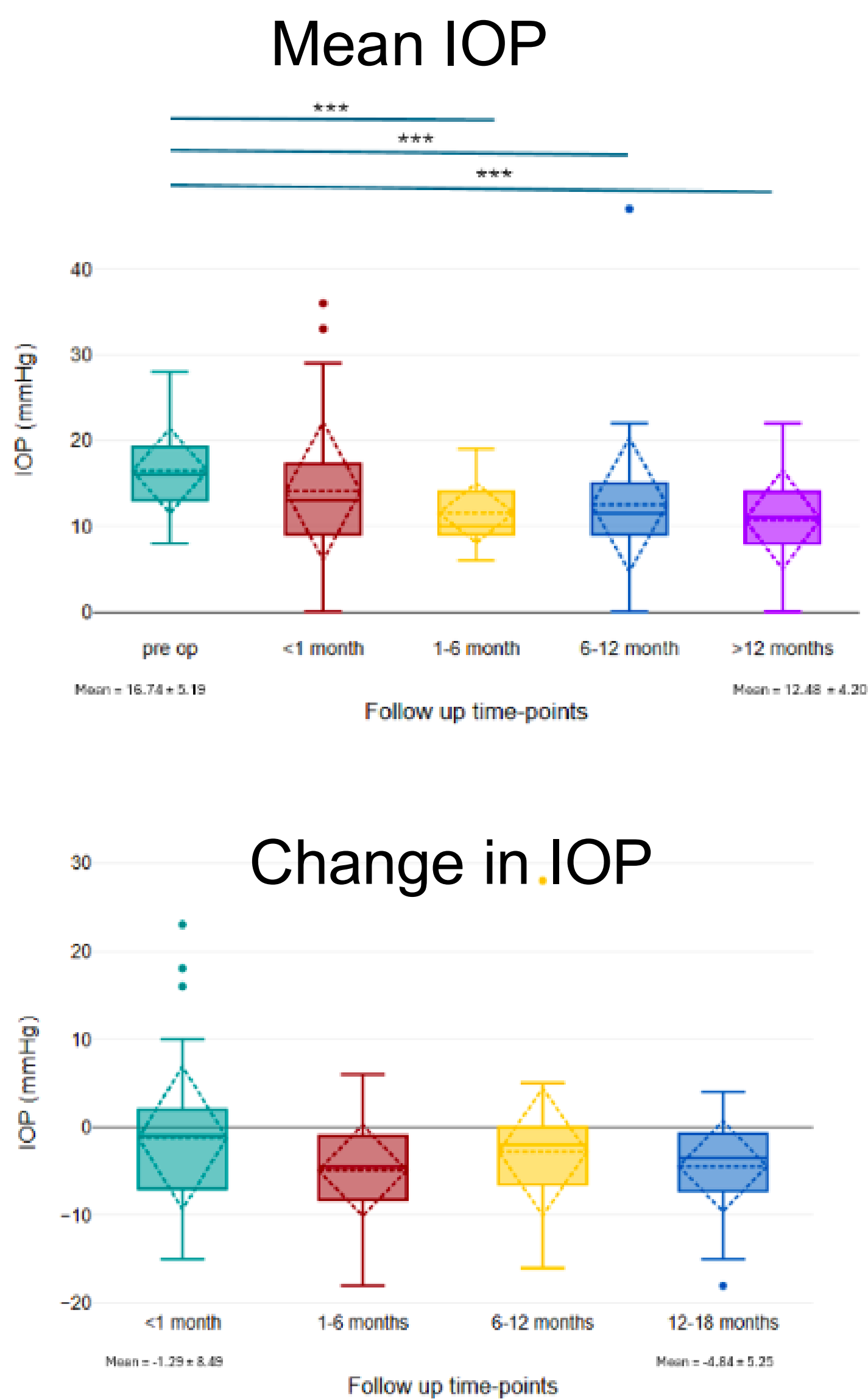
- Patient demographics:
 - laterality, age, sex, ethnicity, diagnosis
- Pre and post-op data:
 - Best corrected visual acuity (BCVA), IOP, number of IOP lowering agents used



Results: Demographics

36 eyes, 33 patients		Diagnosis	N (%)
Laterality	21 Right eye 15 Left eye	Chronic open angle glaucoma	25 (69%)
		Normal tension glaucoma	4 (11%)
Sex	14 Female 22 Male	Ocular hypertension	2 (5%)
		Glaucoma suspect	1 (3%)
Ethnicity	5 Afro-carribean 13 Asian 18 White	Chronic angle closure	1 (3%)
		Primary angle closure	1 (3%)
Age range	47-87 years old	Normal tension glaucoma suspect	1 (3%)
		Pseudoexfoliation	1 (3%)

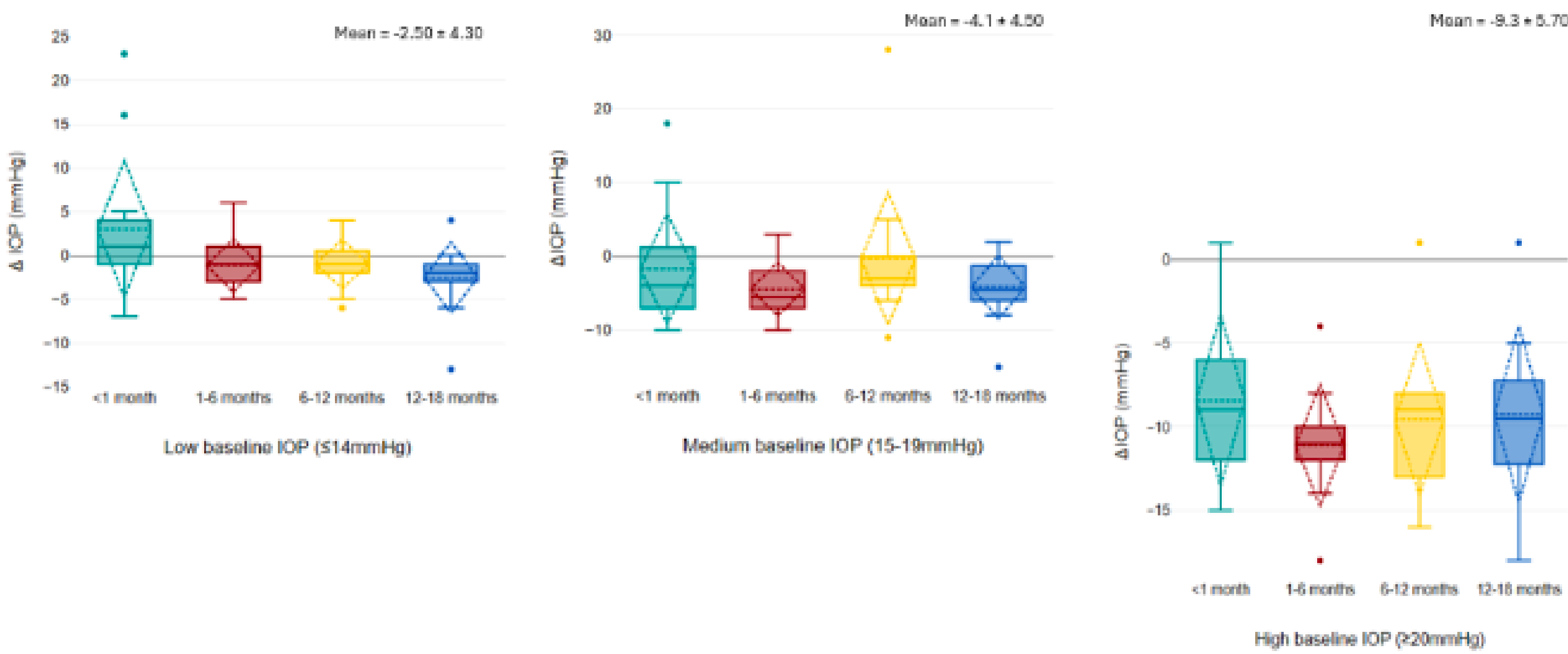
Results: Diagnosis and Outcomes



Follow up	<1 month	1-6 months	6-12 months	12-18 months
Increase in drops	1	0	0	0
No change to drops	0	8	9	12
Decrease in drops	27	28	24	19
Average change	-0.97	-1.03	-0.94	-0.84

Change in IOP

(divided according to baseline pre-op IOP)



Conclusion

- Combined phacoemulsification and iStent inject W resulted in sustained IOP reduction of -5mmHg at 12-18 months post-op
 - Greatest effect in cohort of high baseline IOP of -10mmHg
 - Also good effect in both cohorts with low baseline IOP (-2mmHg) and moderate IOP (-4mmHg)
- Sustained reduction in number of IOP lowering agents (-1 agent)

References

<https://www.nice.org.uk/guidance/ipg575>

Samuelson TW, Katz LJ, Wells JM, Duh YJ, Giamporcaro JE; US iStent Study Group. Randomized evaluation of the trabecular micro-bypass stent with phacoemulsification in patients with glaucoma and cataract. Ophthalmology. 2011 Mar;118(3):459-67. doi: 10.1016/j.ophtha.2010.07.007. Epub 2010 Sep 15. PMID: 20828829.

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Craven ER, Katz LJ, Wells JM, Giamporcaro JE; iStent Study Group. Cataract surgery with trabecular micro-bypass stent implantation in patients with mild-to-moderate open-angle glaucoma and cataract: two-year follow-up. J Cataract Refract Surg. 2012 Aug;38(8):1339-45. doi: 10.1016/j.jcrs.2012.03.025. PMID: 22814041.