



WOO UNIVERSITY

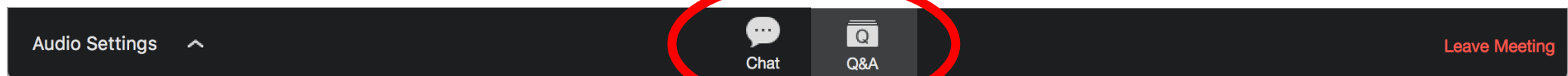
Glaucoma Surgical Treatment: Minimally Invasive Glaucoma Surgery

Tigran Kostanyan, MD
Glaucoma and Cataract Specialist
Wellish Vision Institute
May 6 2021

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- For the best audio experience, close all unnecessary windows on your computer
- Ask questions using the zoom on-screen floating panel



Tigran Kostanyan, MD

Education

- Fellowship – Glaucoma, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania
- Residency – University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania
- Medical School – Yerevan State Medical University, Yerevan, Armenia

Bio

Dr. Kostanyan was born in Armenia. He graduated from Yerevan State Medical University with honors at age 21. He completed his ophthalmology residency at the Malayan Eye Center in Yerevan. While in residency Dr. Kostanyan worked at the Armenian Eye Care Project, a nonprofit organization providing medical and surgical eye care in underserved areas of the country. After moving to United States he joined Ophthalmic Imaging Research Laboratory and worked with world-renowned glaucoma specialist and one of the inventors of optical coherence tomography Dr. Joel Schuman. Dr. Kostanyan has since completed his second ophthalmology residency and prestigious glaucoma and anterior segment fellowship at the University of Pittsburgh Medical Center.

Dr. Kostanyan specializes in cataract and medical, laser and surgical treatments of glaucoma. Having in his armamentarium both traditional and newer microincisional glaucoma surgeries (MIGS) he is able to personalize a surgical approach for his patients.



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Financial Disclosures

- Ivantis: Consultant
- ImprimisRx: Consultant

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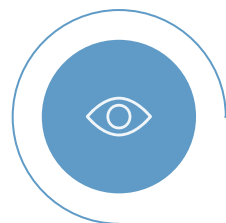


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Glaucoma Overview



The Current Prevalence of Glaucoma in US



A leading cause
of irreversible
blindness,

second only to macular
degeneration



More than 3
million

Americans aged 40 years
and older have glaucoma



90%
have open-angle
glaucoma

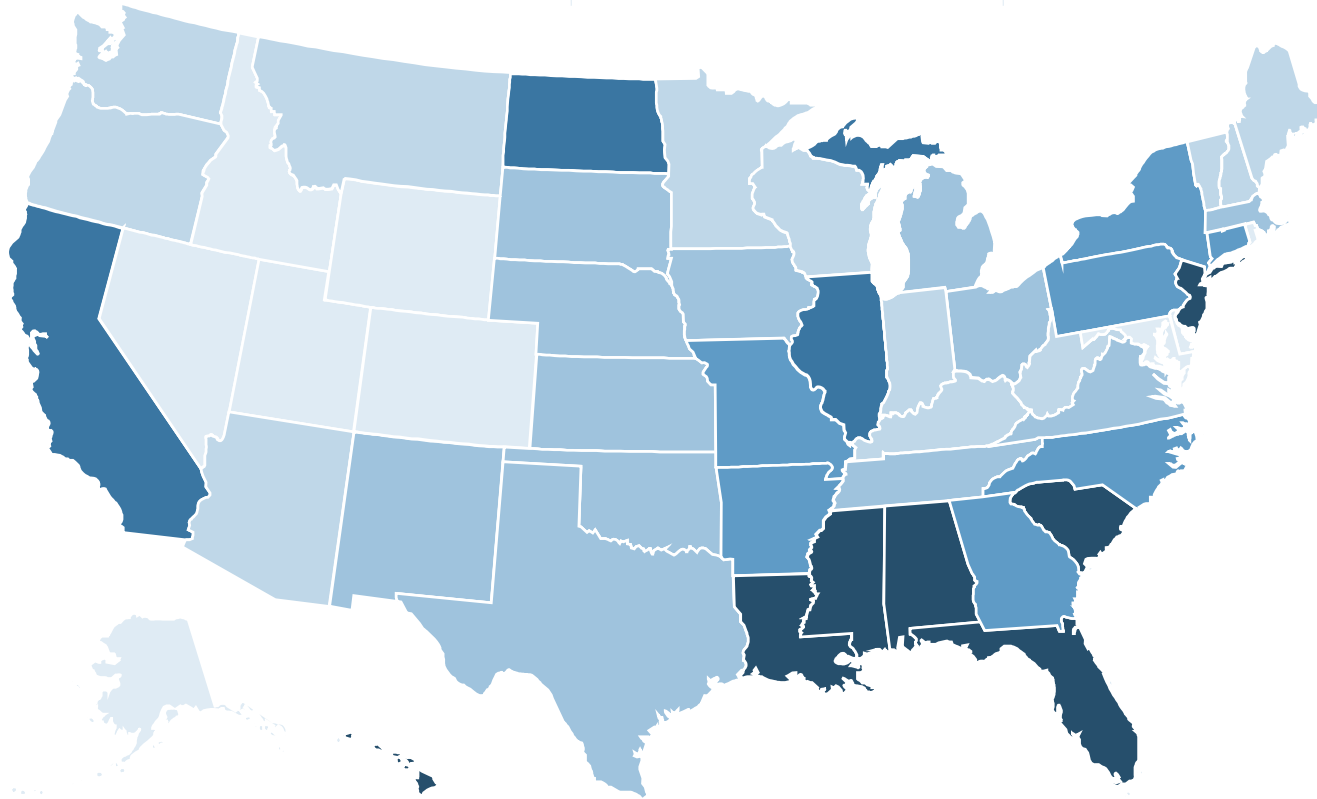


Only 50%
of those know they have
glaucoma

Source: <https://www.brightfocus.org/sources-glaucoma-facts-figures>

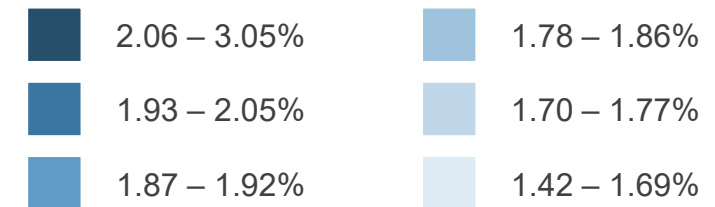
The Prevalence of Glaucoma in the US by State

United States Prevalence Rate (%): **1.9063** | Total Adult Population: **142,648,393** | Prevalence: **2,719,379**



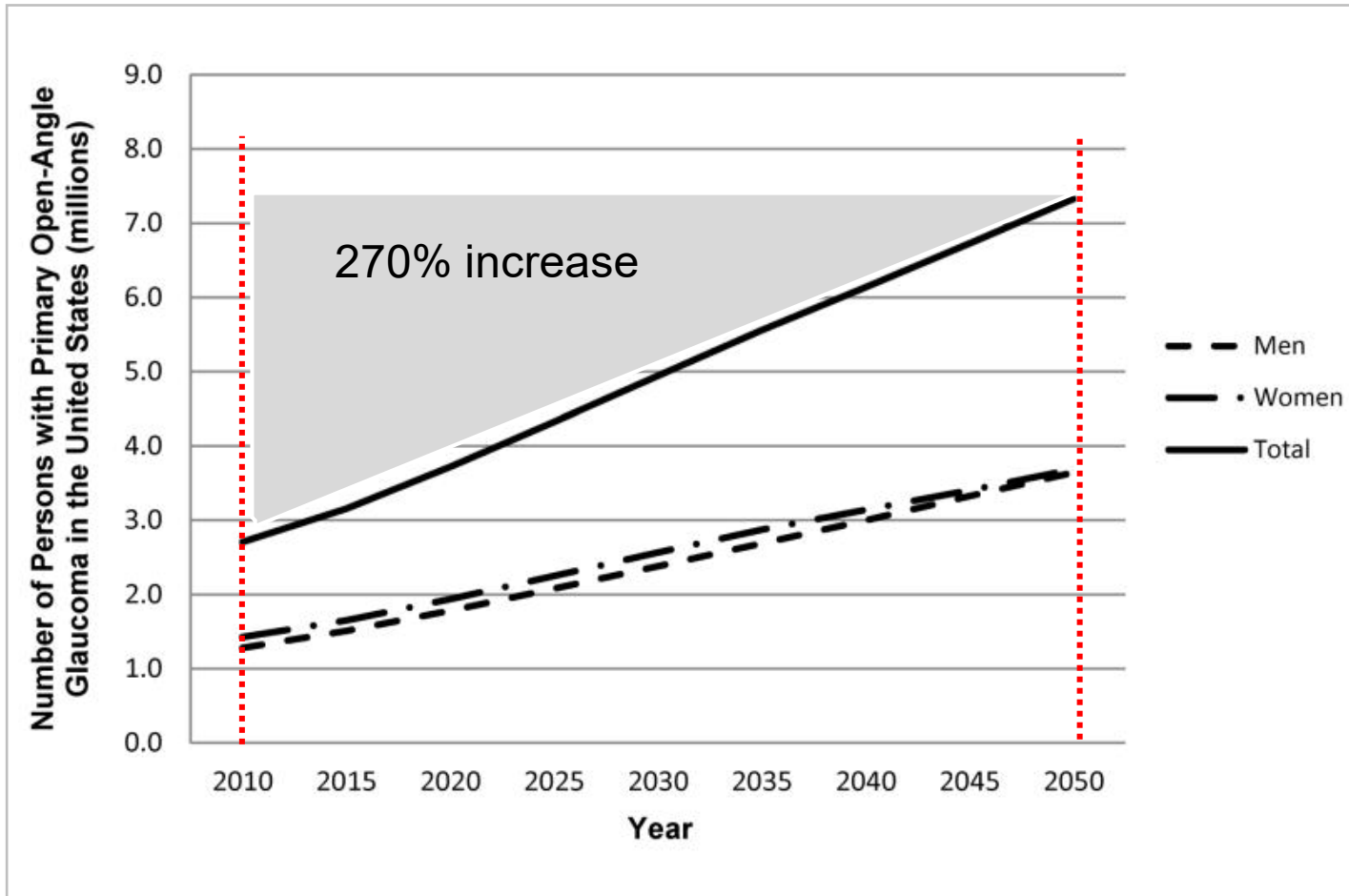
The map above reflects estimated state-by-state prevalence rates of glaucoma. The overall national rate is 1.9% for the U.S. population age 40 and older, indicating that more than 2.7 million older Americans have primary open-angle glaucoma.

State Prevalence Rate



Source: <http://www.visionproblemsus.org/glaucoma/glaucoma-map.html>

Projected Growth of Glaucoma Diagnosed in the US by 2050



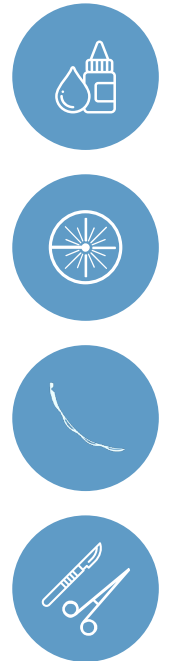
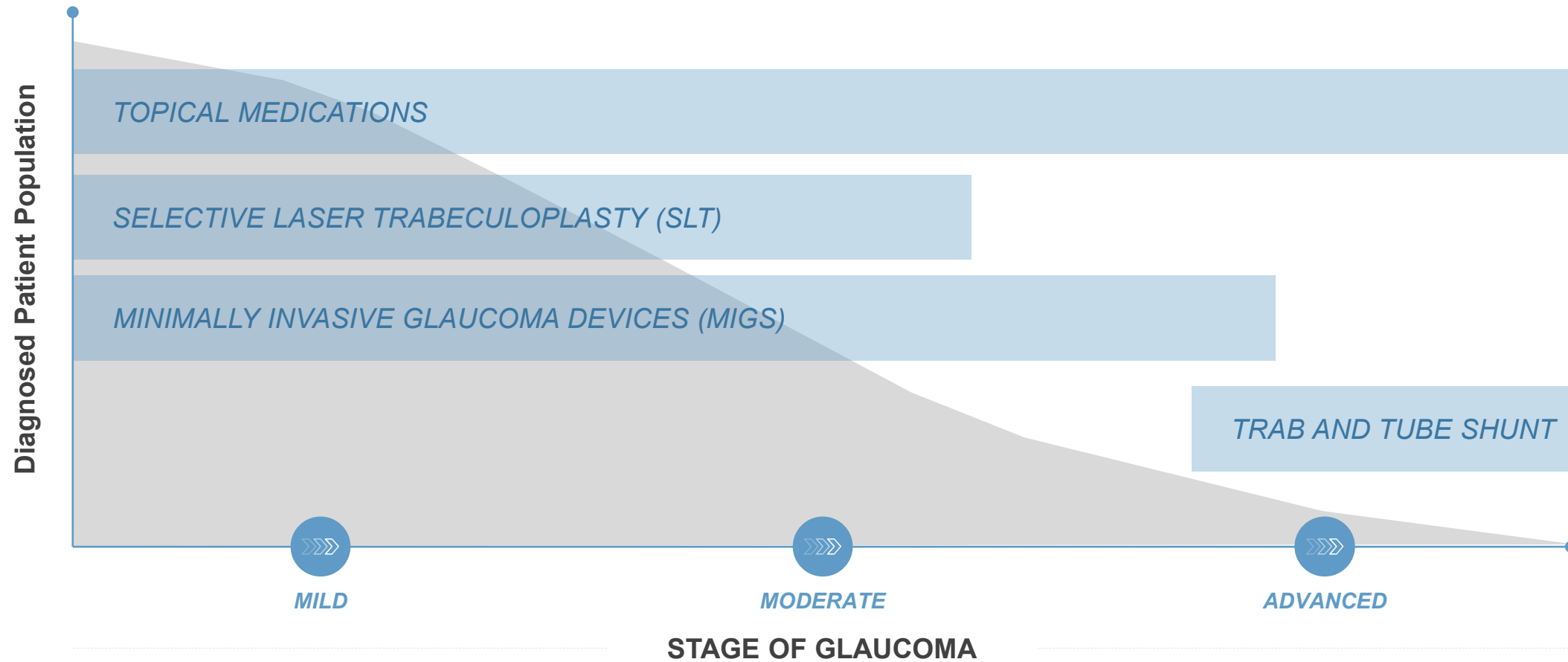
In 2010,
2.7 million

individuals had
POAG.



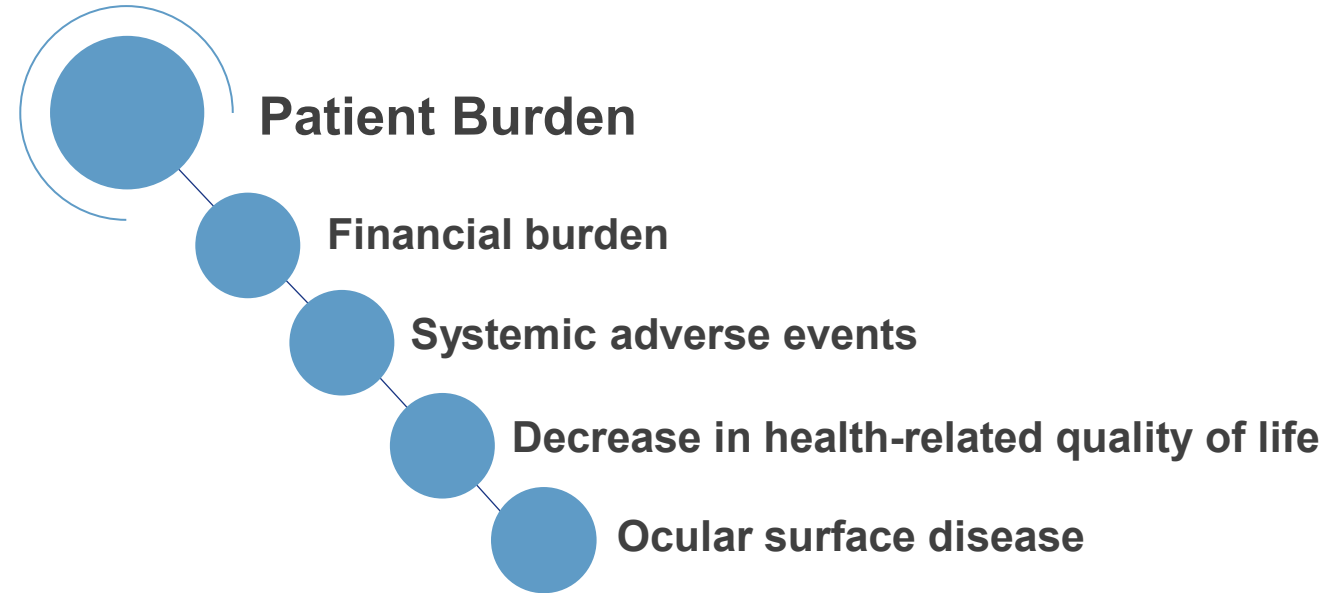
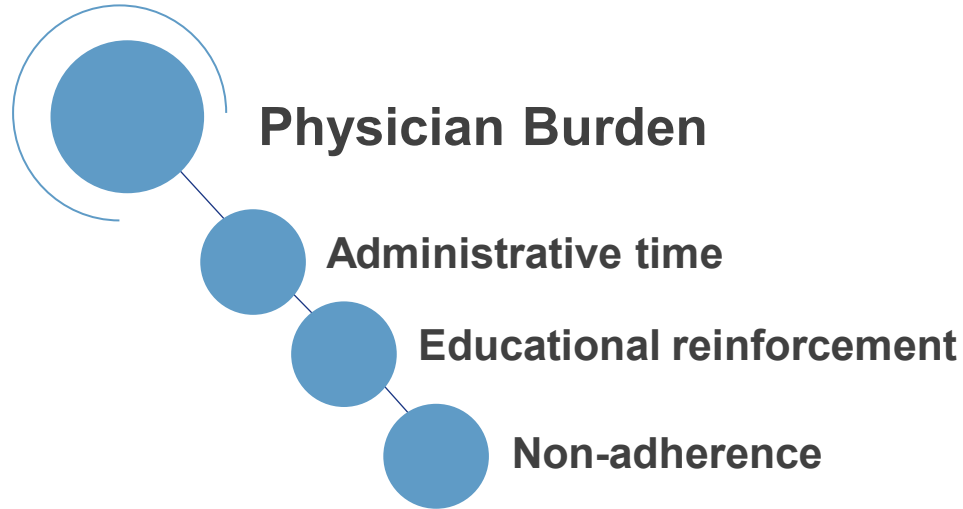
In 2050, an estimated
7.32 million
individuals are projected
to have POAG

Glaucoma Treatment Options



*Market Scope 2017 Glaucoma Surgical Device Report

Drawbacks to Topical Medications



> 30%

decrease in compliance as complexity increases.¹

10%

of glaucoma patients continuously refilled their prescription within 12 months.²

5.5x

greater risk of developing OSD with a history of at least 3 years of glaucoma therapy.³

3.3x

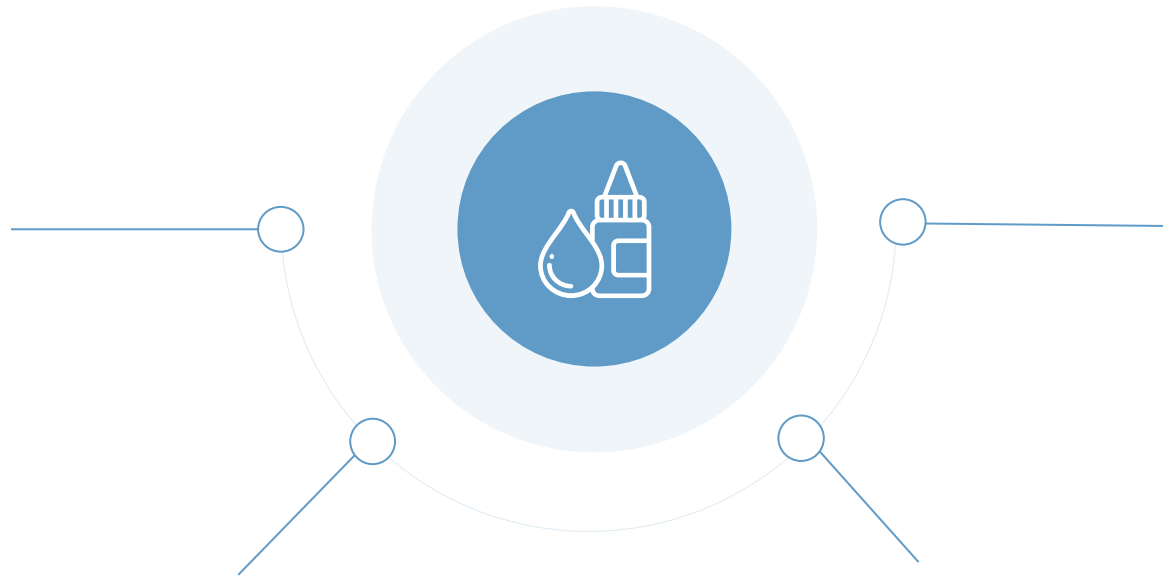
greater risk of glaucoma progression in patients reporting ocular side effects.

1. Reardon G1, Kotak S, Schwartz GF. Objective assessment of compliance and persistence among patients treated for glaucoma and ocular hypertension: a systematic review. *Patient Prefer Adherence*. 2011;5:441-63. doi:0.2147/PPA.S23780. Epub 2011 Sep 23.
2. Friedman DS, Quigley HA, Gelb L. Using pharmacy claims data to study adherence to glaucoma medications: methodology and findings of the Glaucoma Adherence and Persistency Group (GAPS). *Invest Ophthalmol. Vis Sci*. 2007;48:5052-5057.
3. Rossi GC1, Pasinetti GM, Scudeller L. Risk factors to develop ocular surface disease in treated glaucoma or ocular hypertension patients. *Eur J Ophthalmol*. 2013 May-Jun;23(3):296-302.

Tissue Sequelae of Chronic Topical Preservatives

Tear Film

- › Disrupts lipid layer
- › Reduces mucin production
- › Unstable tear film



Trabecular Meshwork

- › Trabecular apoptosis
- › Oxidative stress
- › Long-term degeneration → outflow resistance

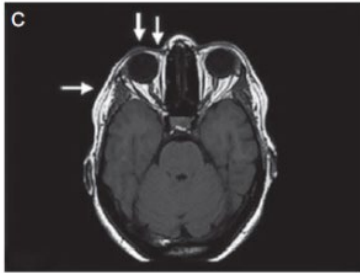
Conjunctiva

- › Decrease in goblet cell density
- › Inflammatory cell infiltration
- › Scarring of the ocular surface making future treatments difficult

Cornea

- › Inhibit cell proliferation and growth
- › Disruption of epithelial barrier function
- › Neurotoxicity

Source: https://www.medscape.com/viewarticle/723420_5



Can We Reduce the Burden

Nearly 4 million
cataract surgeries are
performed per year in
the US.



Up to 20% of patients undergoing cataract surgery have a concurrent diagnosis of glaucoma, according to US studies.¹

Potentially 800,000 patients.



Cataract surgery is estimated to increase at a rate of 3.1% each year.²

Potentially 124,000 additional cataract patients each year.

1. Tseng, Victoria I. et al. Risk of Fractures Following Cataract Surgery in Medicare Beneficiaries. JAMA. Vol 308, No 5. August 1, 2012

2. MarketScope Report: 2017 Cataract Surgical Equipment Report. A Global Market Analysis For 2016 To 2022.

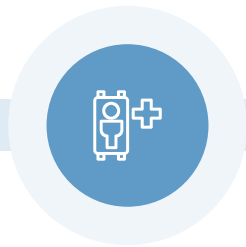
Opportunity to Partner

Optometrists are at the frontline to recommend treatment for cataract and glaucoma patients.



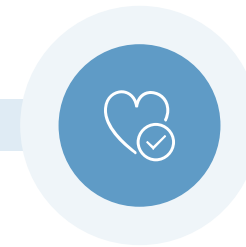
Established relationships with patients

- › Ability to inform patients of the best technologies available
- › Needs, wants, expectations, and lifestyle



Reduce patient and physician burden

- › Cost/pharmacy visits and prior authorizations
- › Ocular surface disease and potential effects on visual acuity



Ability to impact patients' post-operative lifestyle

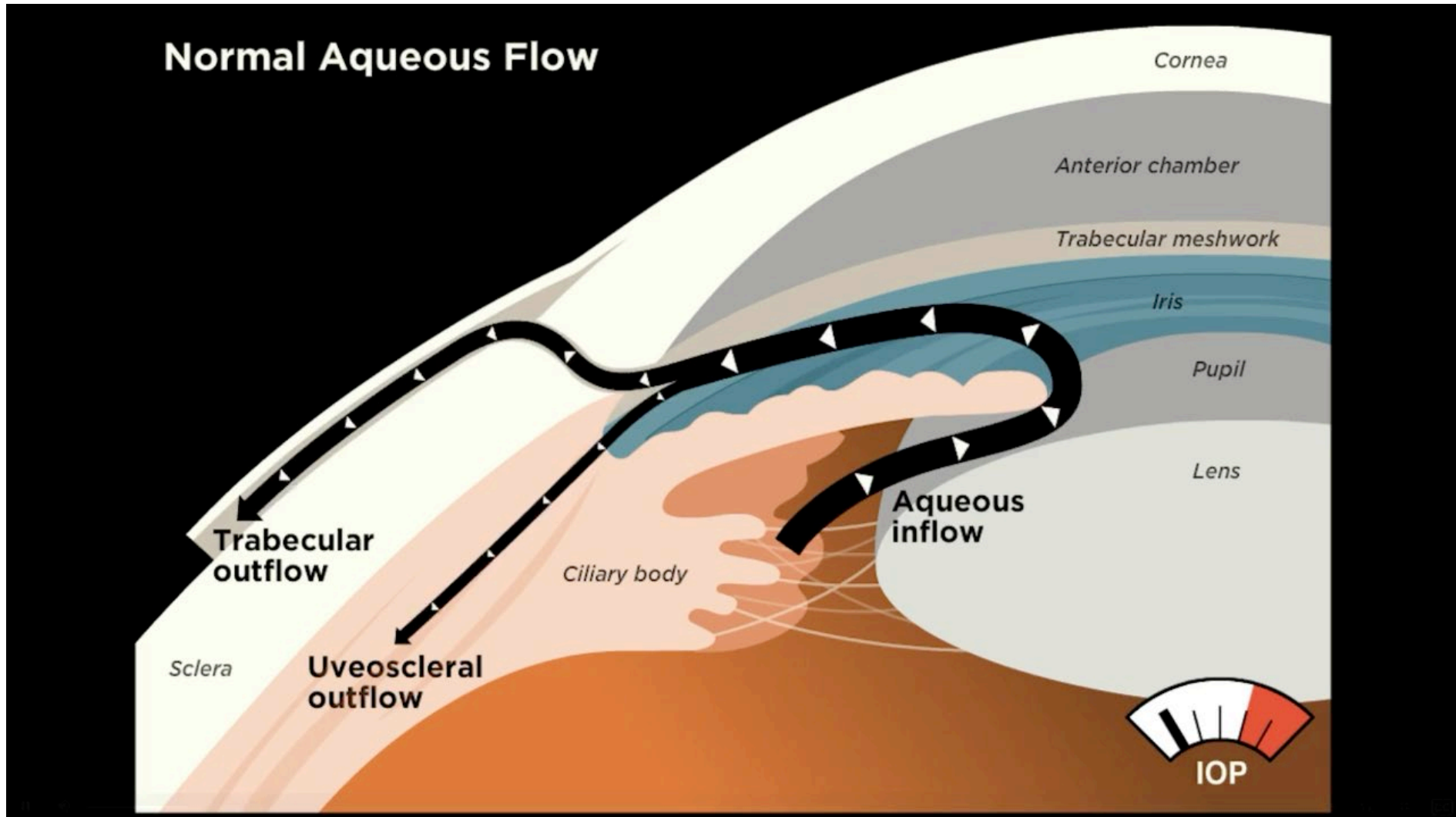
- › ONE TIME opportunity during cataract surgery to address a patient's cataract, refractive needs (astigmatism and presbyopia) as well as their glaucoma

2

Recent MIGS Trials

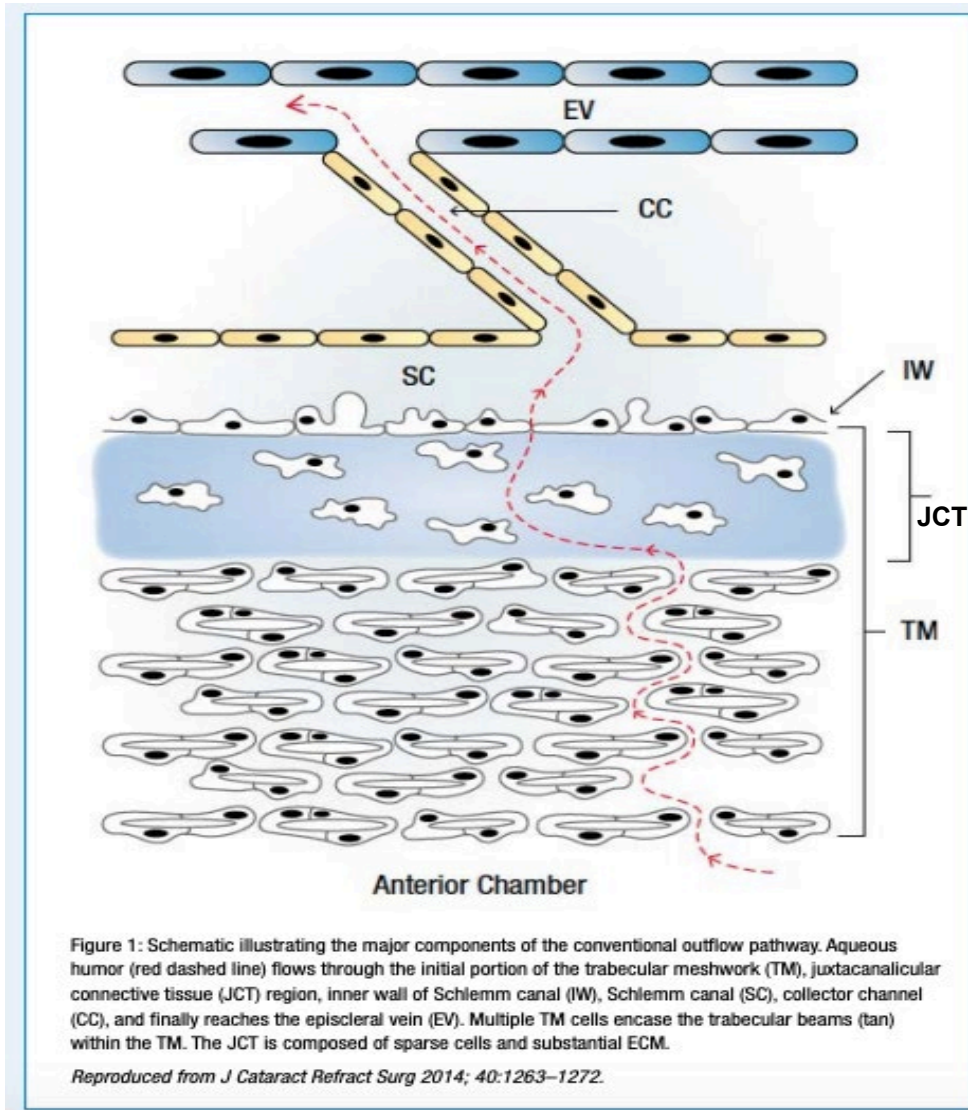


Aqueous Outflow Pathways



Source: <https://www.aao.org/basic-skills/animation-of-aqueous-flow>

Resistance Within The Conventional Outflow Pathway



Collector Channels

- › Possible age-related reduction in CC.
- › TM can herniate into CC ostia causing blockage.

Schlemm's Canal

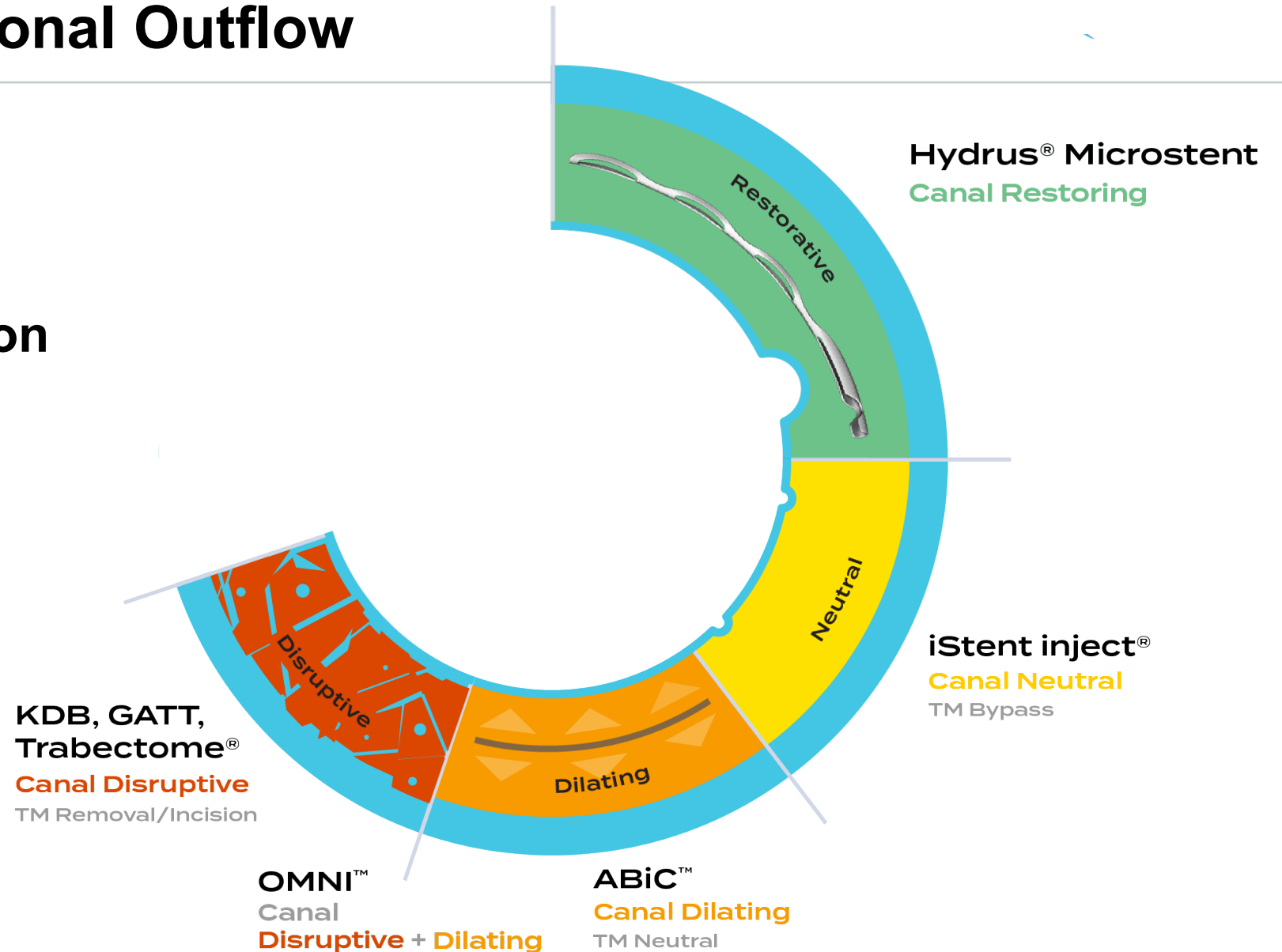
- › As IOP increases, TM is forced toward SC resulting in collapse of canal.

Trabecular Meshwork

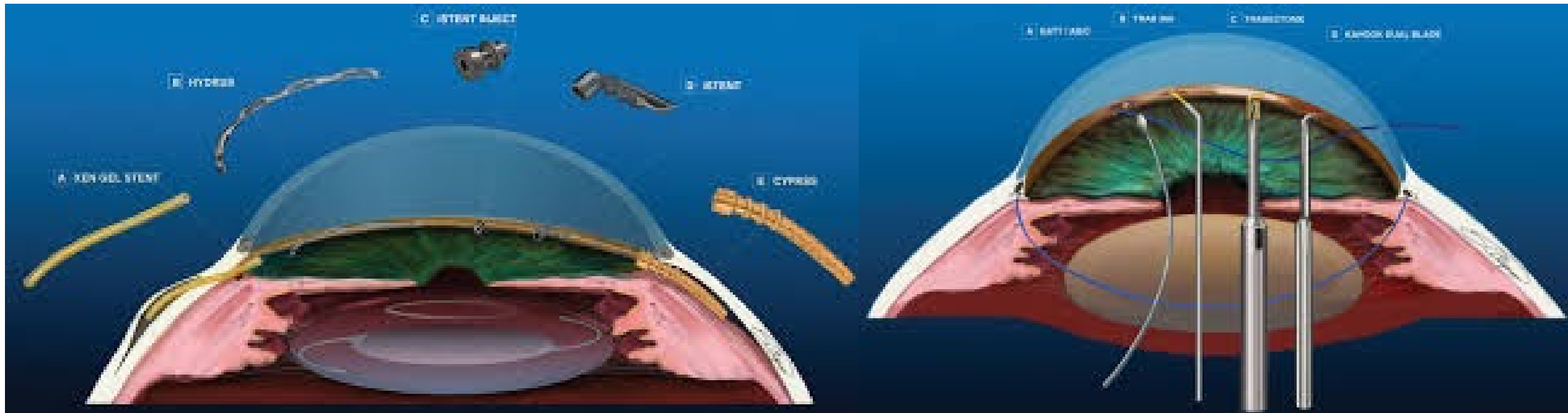
- › Loss and compaction of cells causes reduced permeability.
- › Accumulation of extracellular matrix and plaque materials.
- › Reduced size/number of vacuoles in JCT.

Current MIGS Mechanisms to Enhance Conventional Outflow

From Tissue Disruption to Canal Restoration



Current MIGS options



MIGS

- **Increase trabecular outflow**

- *Removing tissue*
- *Canaloplasty*
- *Bypass stent*

- **Increase Uveoscleral / Suprachoroidal/ Supraciliary Outflow**

- *CyPass **
- *iStent Supra ***

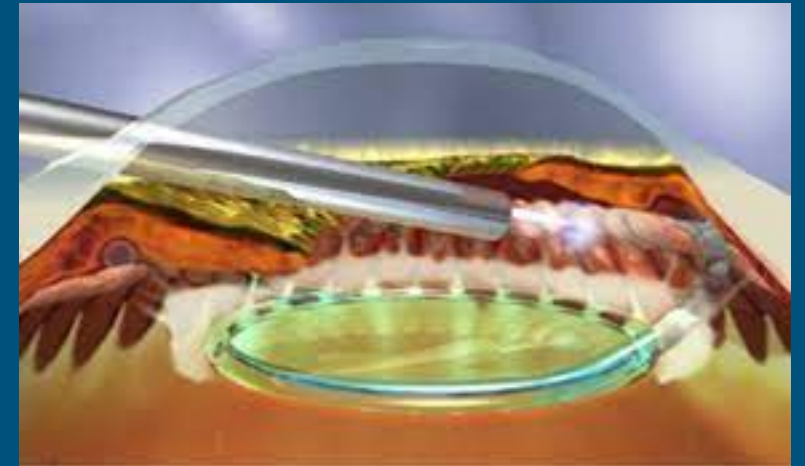
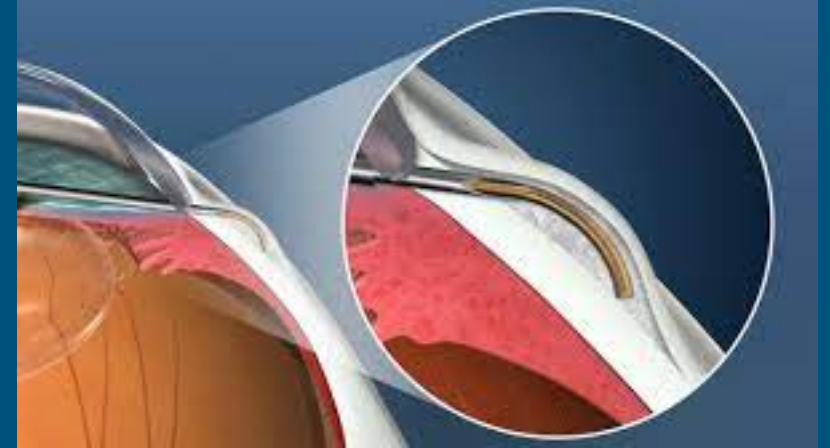
* Recalled from market

** Pending FDA approval

MIGS

- **Increase Subconjunctival Outflow**
 - *XEN gel stent*

- **Decrease aqueous production**
 - *Endocyclophotocoagulation*



MIGS

- Increase trabecular outflow

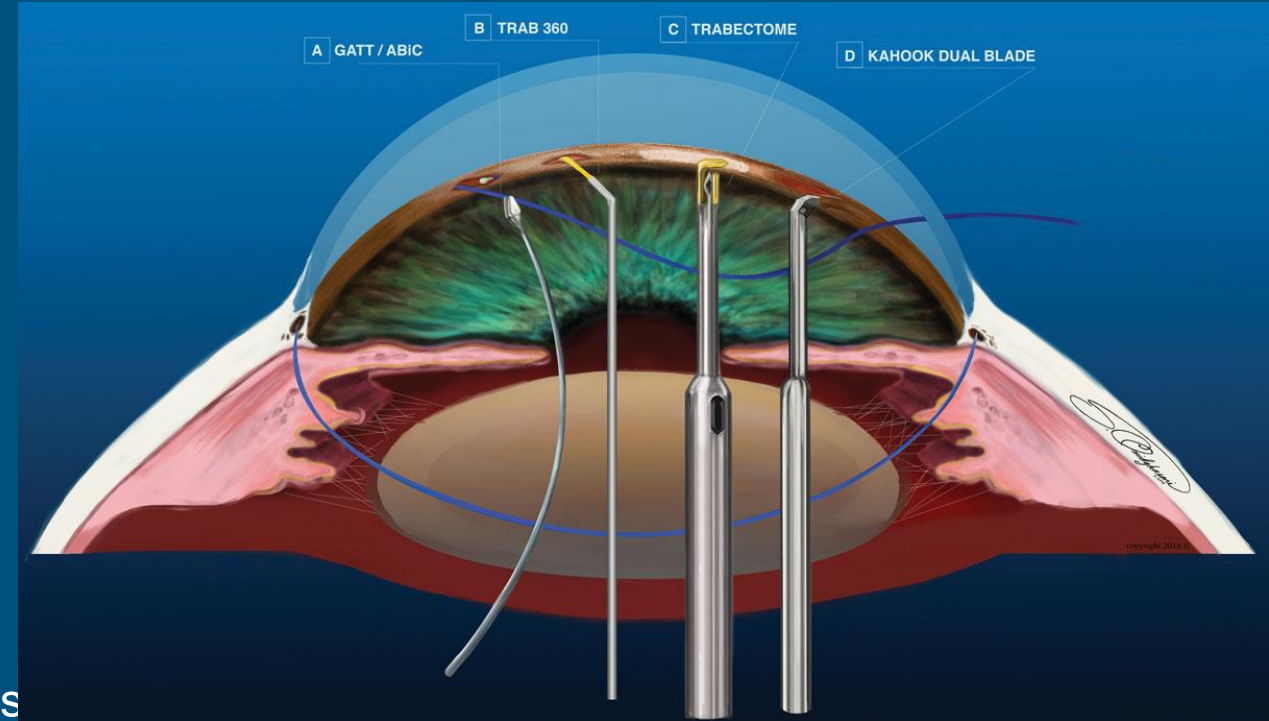
- Removing tissue

Kahook Dual Blade

Trabectome

GATT with suture, iTrack, OMNI

Can be done combined with cataract surgery and s



MIGS

- Increase trabecular outflow

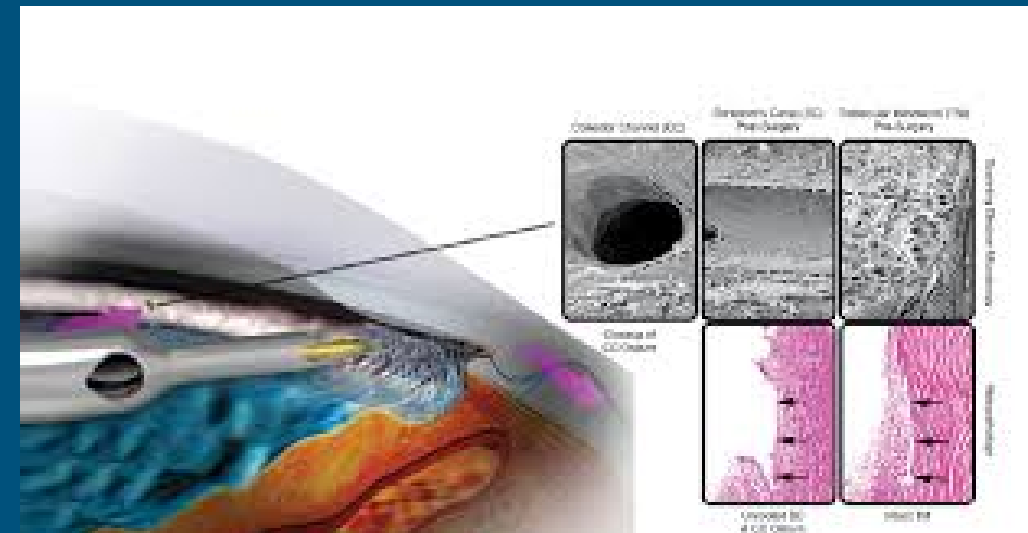
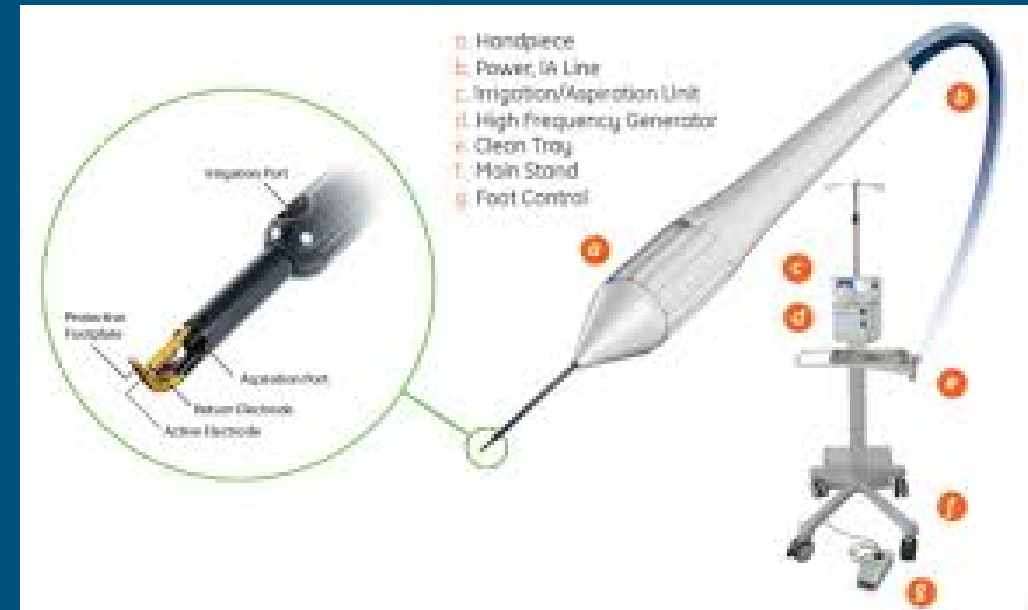
Kahook Dual Blade



MIGS

- Increase trabecular outflow

Trabectome

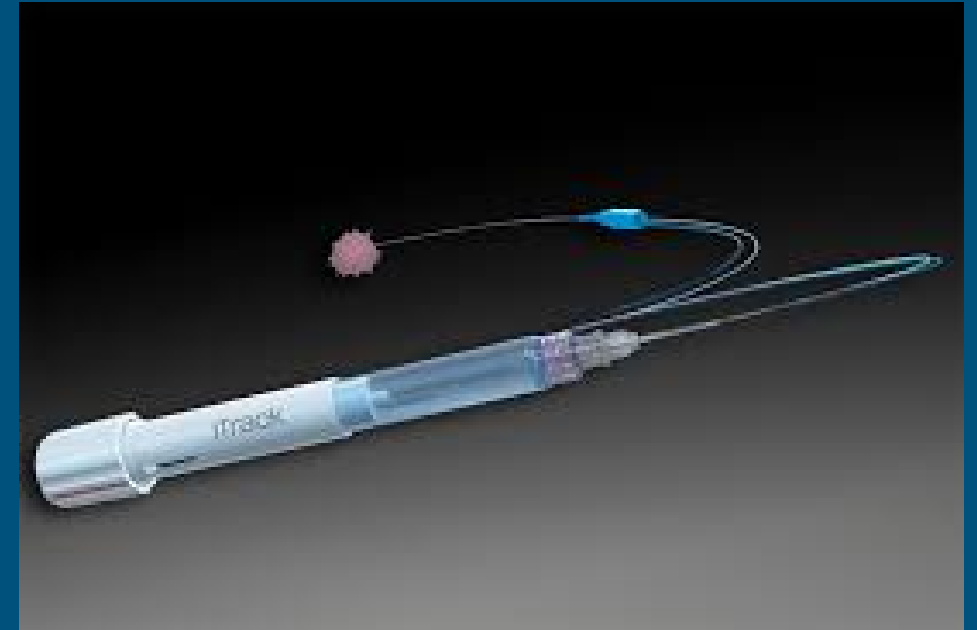


MIGS

- Increase trabecular outflow

GATT with suture, iTrack, OMNI

iTrack



OMNI



MIGS

- Increase trabecular outflow

- Canaloplasty

iTrack

OMNI

Can be done combined with cataract surgery and

iTrack

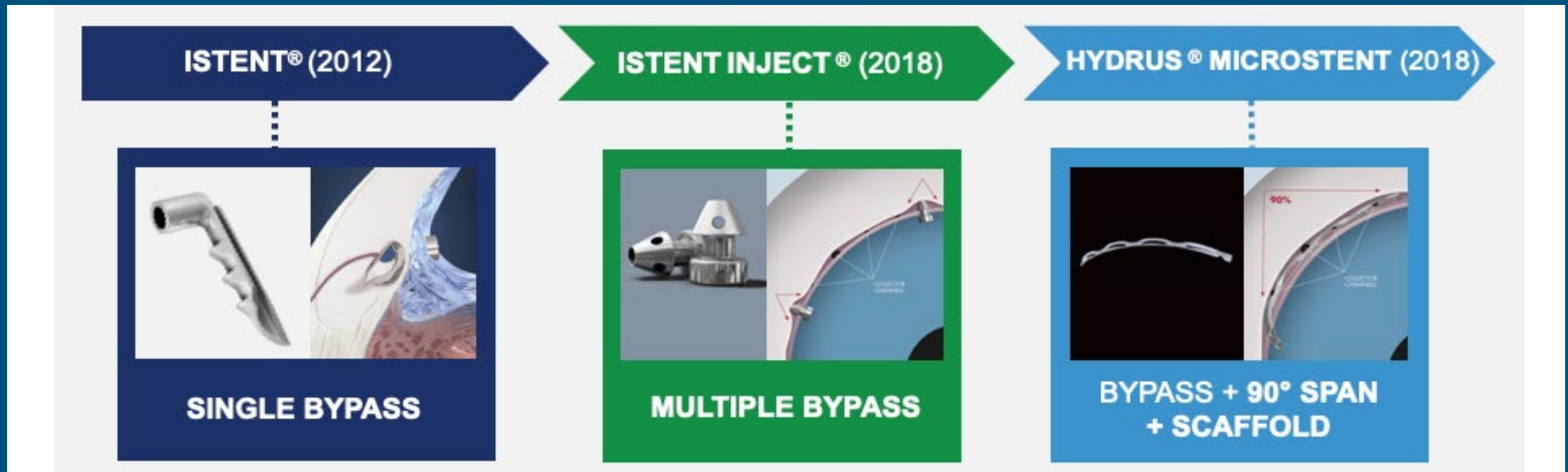


OMNI



MIGS

- Increase trabecular outflow
- Bypass stent



Only combined with cataract surgery

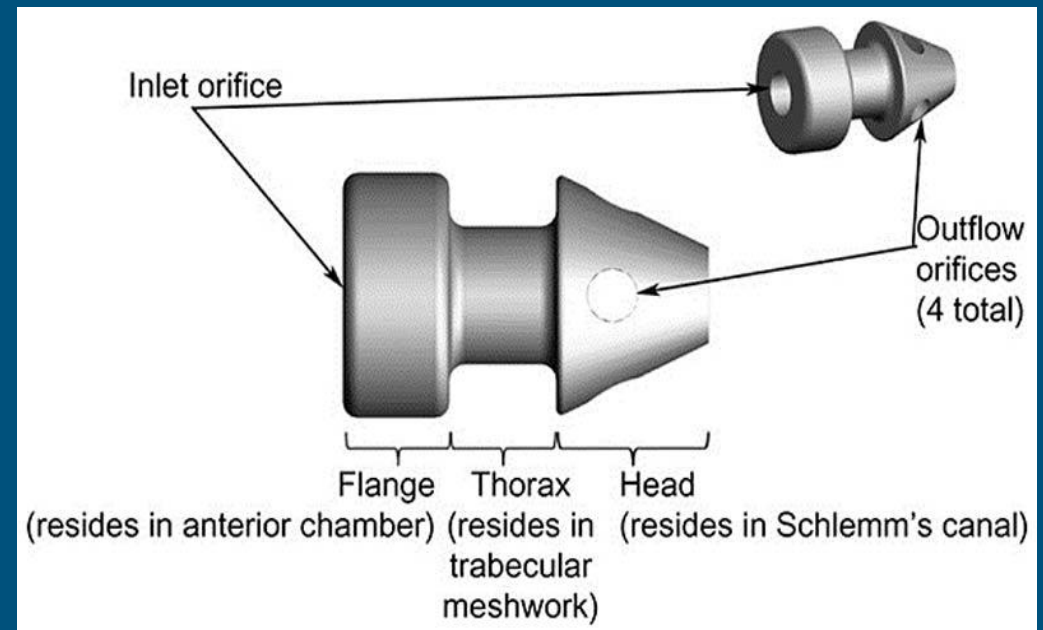
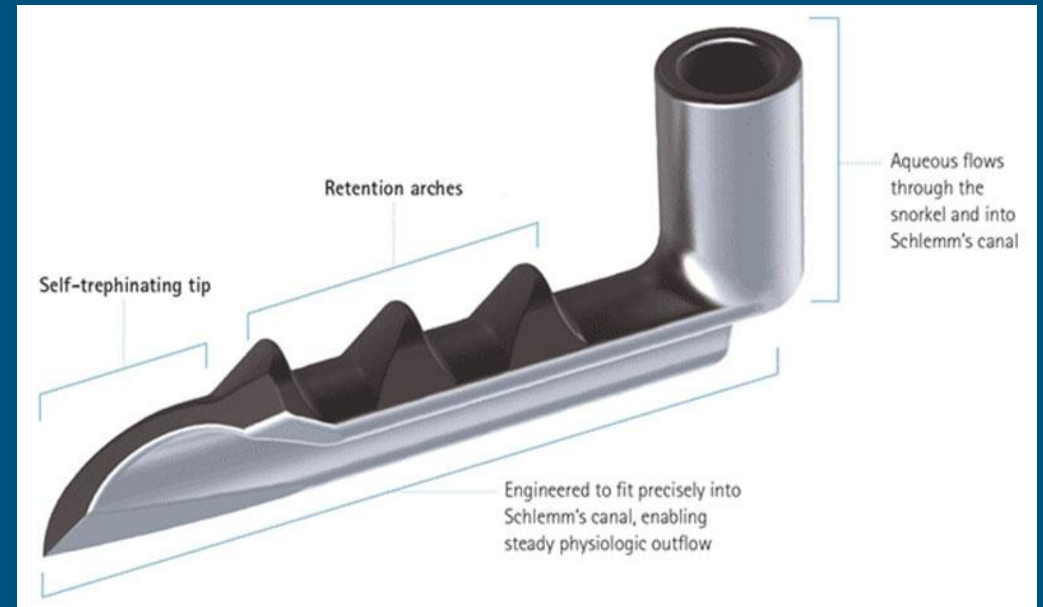
MIGS

- Increase trabecular outflow

- Bypass stent

iStent

iStent inject

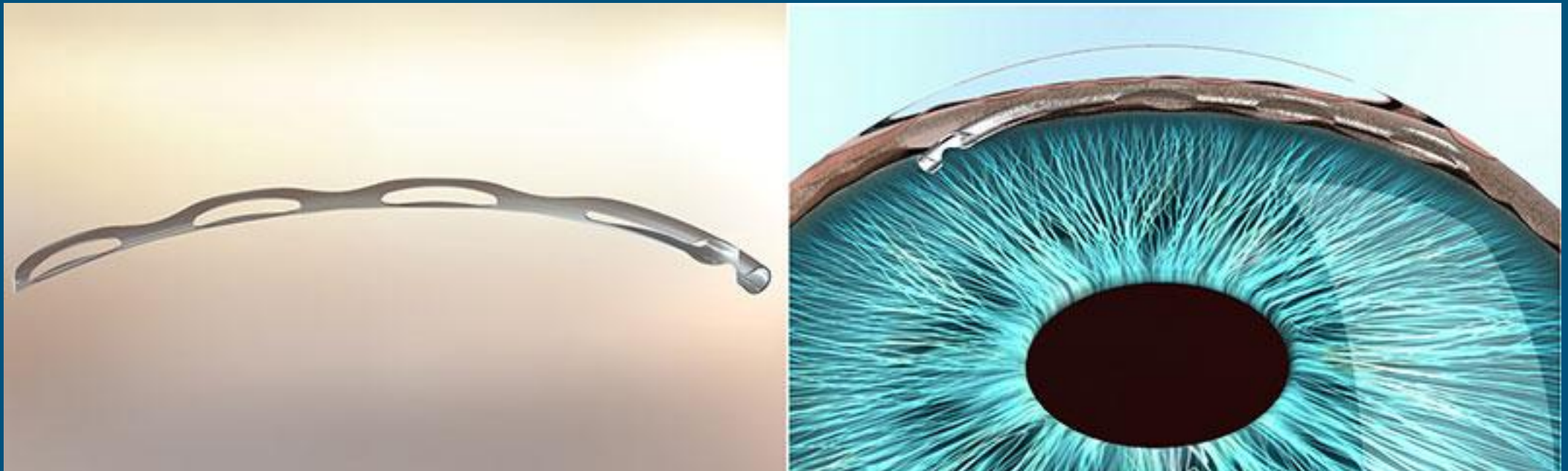


MIGS

- Increase trabecular outflow

- **Bypass stent**

Hydrus Microstent

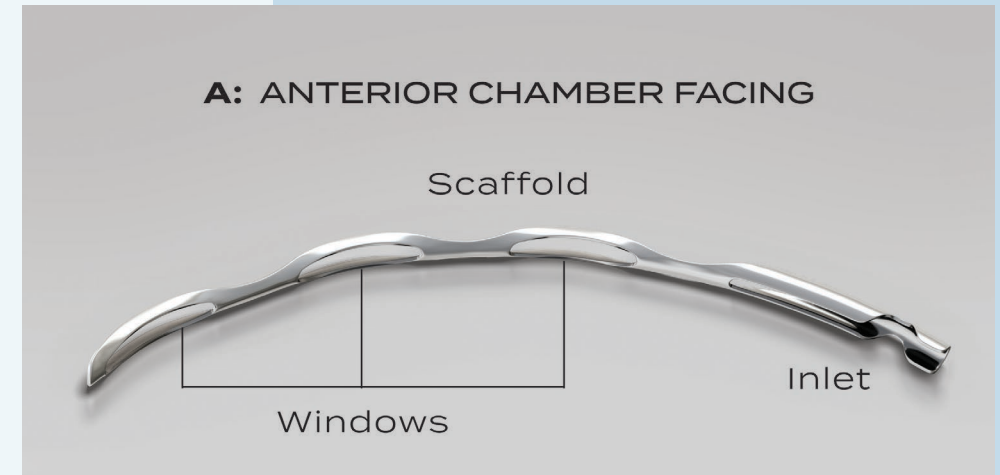


MIGS Procedure	Decrease in IOP	Decrease in Medications	Study Type
iStent Micro-Bypass*	8.4 mmHg @ 2 years	0.8 @ 2 years	Randomized controlled trial
iStent Inject	8.1 mmHg @ 1 year	Not available	Prospective, randomized trial
Gonioscopy-assisted transluminal trabeculotomy (GATT)*	8.4 mmHg @ 1 year	1.9 @ 1 year	Retrospective review
Trabectome*	6.2 mmHg @ 2 years	0.76 @ 2 years	Meta-analysis
TRAB 360 Trabeculotomy	6.3 mmHg @ 131.5 days**	0.9 @ 131.5 days**	Retrospective review
Ab interno canaloplasty*	4.0 mmHg @ 1 year	1.0 @ 1 year	Case-series review

Hydrus Microstent*	9.4 mmHg @ 2 years	1.5 @ 2 years	Randomized controlled trial
CyPass Micro-Stent*	7.4 mmHg @ 2 years	1.2 @ 2 years	Randomized controlled trial
iStent Supra	7.8 mmHg @ 2 years	Not available	Prospective, single arm clinical trial
XEN Glaucoma Treatment System	9.2 mmHg @ 1 year	1.8 @ 1 year	Prospective, single arm clinical trial
InnFocus MicroShunt*	16.2 mmHg @ 3 years	1.6 @ 3 years	Prospective, single arm clinical trial
Endocyclophotocoagulation*	2.1 mmHg @ 2 years	1.1 @ 2 years	Prospective case-control study

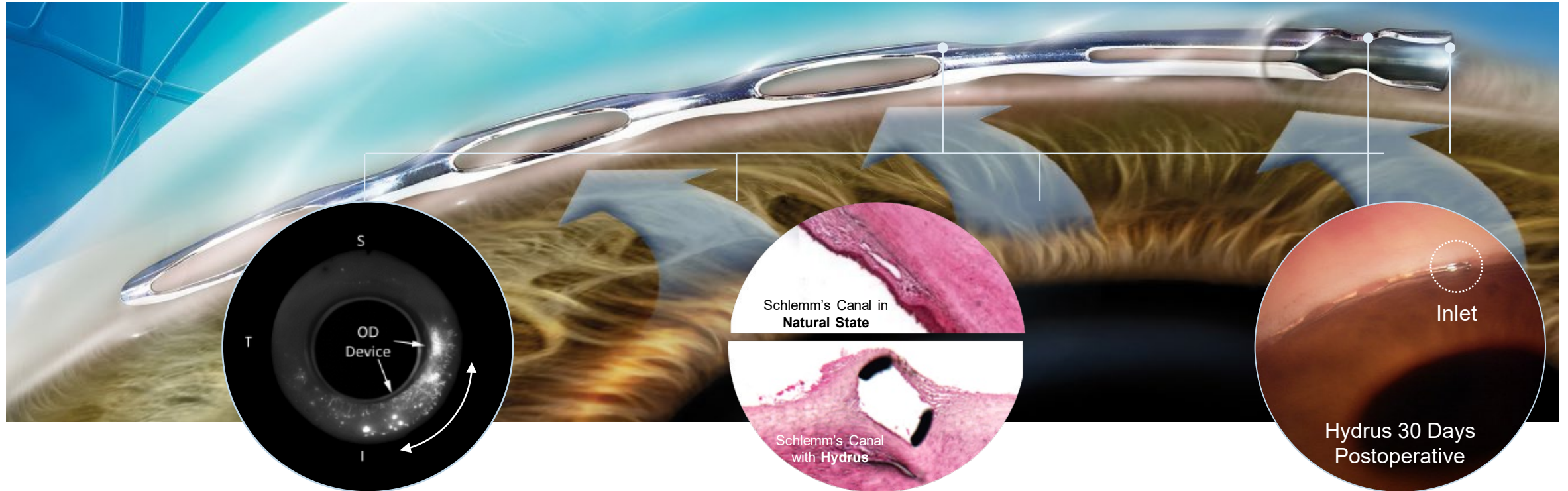
Hydrus[®] Microstent

- Flexible, biocompatible 8 mm long microstent
- Comprised of nitinol with an electropolished surface
- Contoured to match canal curvature
- Three open windows face the anterior chamber
- The canal-facing surface is completely open for unobstructed collector channel access



Hydrus Microstent: *Ab interno* Canal-based MIGS

Tri-Modal[®] Mechanism of Action



90° SPAN

Approximately 90° Optimal Outflow

Source: Gong H, Johnstone M, et al. Poster #115
American Glaucoma Society, New York 2012

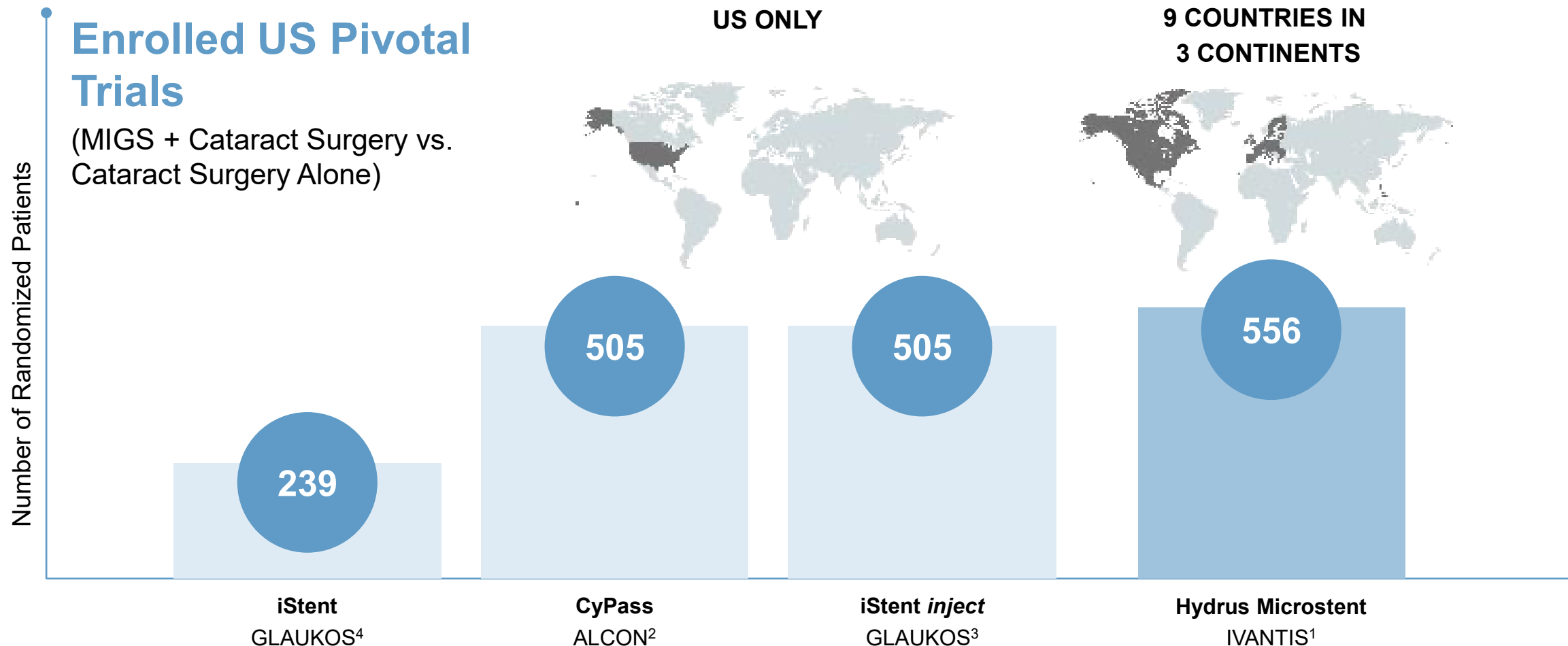
SCAFFOLD

Source: Hays CL, Toris CB, et al. *Invest Ophthalmol. Vis Sci.* 2014;55:1893-1900

BYPASS

Courtesy of Ike Ahmed, MD

HORIZON is the Largest Ever MIGS Pivotal Trial



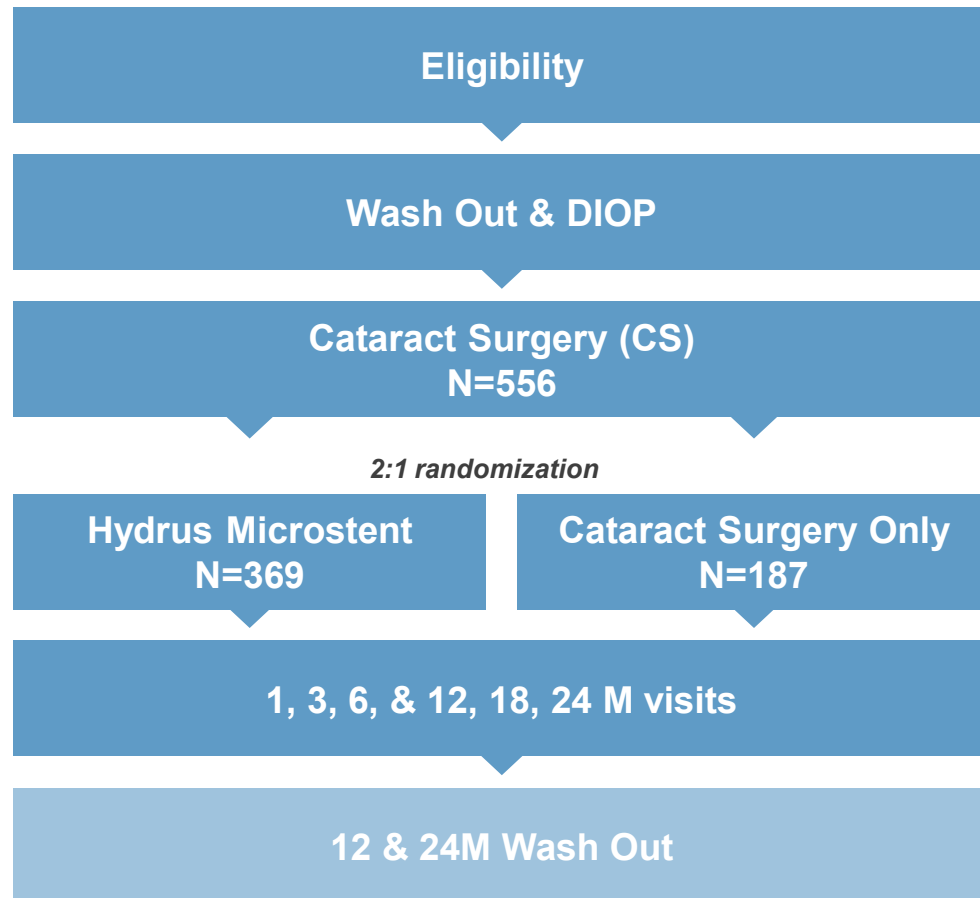
1. US Food and Drug Administration. Summary of Safety and Effectiveness Data (SSED): Ivantis Hydrus® Microstent. US Food and Drug Administration website. https://www.accessdata.fda.gov/cdrh_docs/pdf17/P170034B.pdf. Published August 10, 2018.

2. US Food and Drug Administration. Summary of Safety and Effectiveness Data (SSED): CyPass® System (Model 241-S) . US Food and Drug Administration website https://www.accessdata.fda.gov/cdrh_docs/pdf15/P150037B.pdf. Published July 29, 2016..

3. US Food and Drug Administration. Summary of Safety and Effectiveness Data (SSED): iStent inject® Trabecular Micro-Bypass System. US Food and Drug Administration website. https://www.accessdata.fda.gov/cdrh_docs/pdf17/P170043b.pdf. Published June 21, 2018.

4. US Food and Drug Administration. Summary of Safety and Effectiveness Data (SSED): Glaukos iStent® Trabecular Micro-Bypass Stent. US Food and Drug Administration website. https://www.accessdata.fda.gov/cdrh_docs/pdf8/P080030B.pdf. Published June 25, 2012)

HORIZON Trial: Study Design¹



Inclusion: *Mild/moderate* POAG (VF MD >-12dB), cataract, 1-4 medications, no prior glaucoma surgery, ±prior SLT

After 4 week wash out: Mean diurnal IOP 22-34 mmHg

Treatment: 2:1 randomization in the OR to Hydrus or phaco only after successful PC IOL

Primary Endpoint: 20% reduction in washed out diurnal IOP at [24 months](#)

Secondary endpoint: Change in mean washed out diurnal IOP at [24 months](#)

Medications: mean and counts at each visit

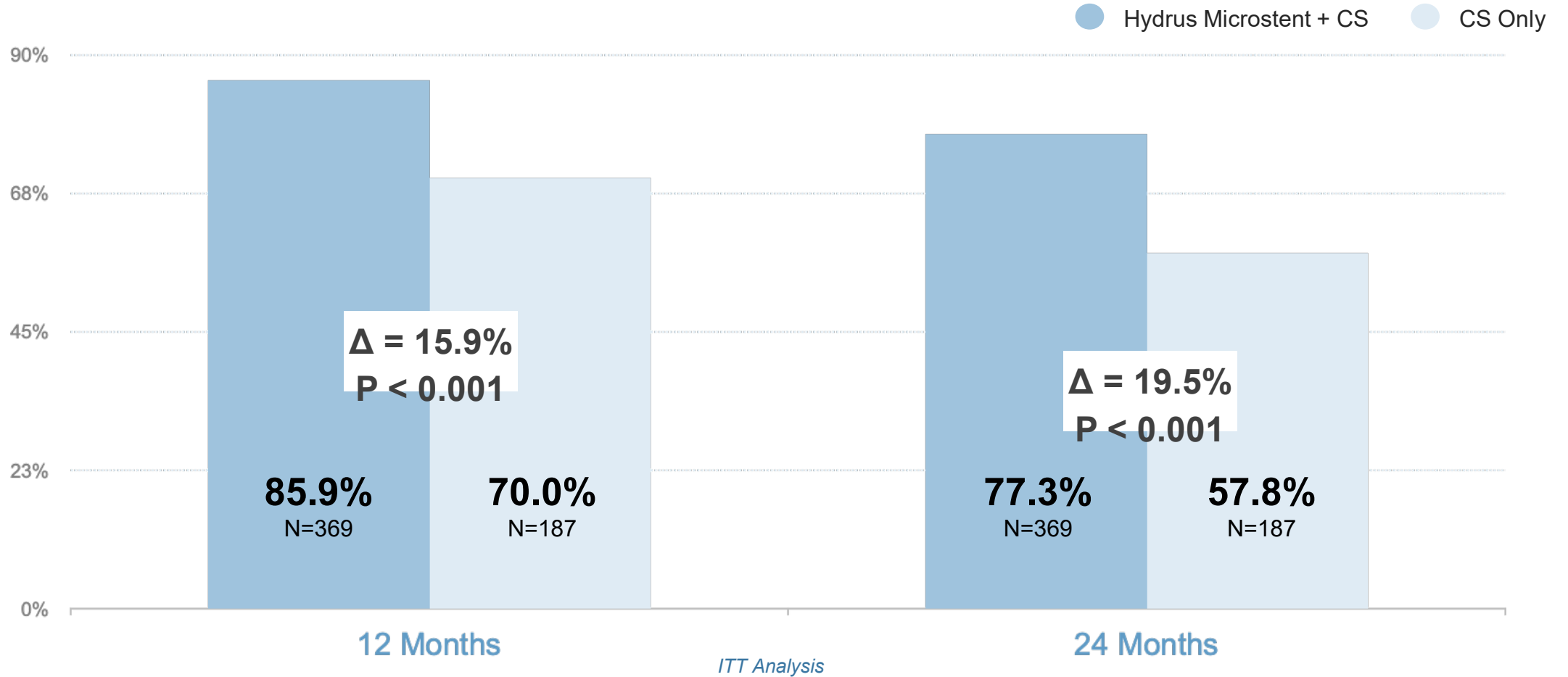
Statistics: >90% power for primary endpoint; Intention-to-treat analysis

1. Samuelson TW, Chang DF, Marquis R, et al. A Schlemm canal microstent for intraocular pressure reduction in primary open-angle glaucoma and cataract: The HORIZON Study. *Ophthalmology* 2019;126:29-37.

HORIZON Primary Endpoint¹

≥20% REDUCTION WASHED OUT DIOP AT 24 MONTHS

Increasing treatment effect through 24 Months

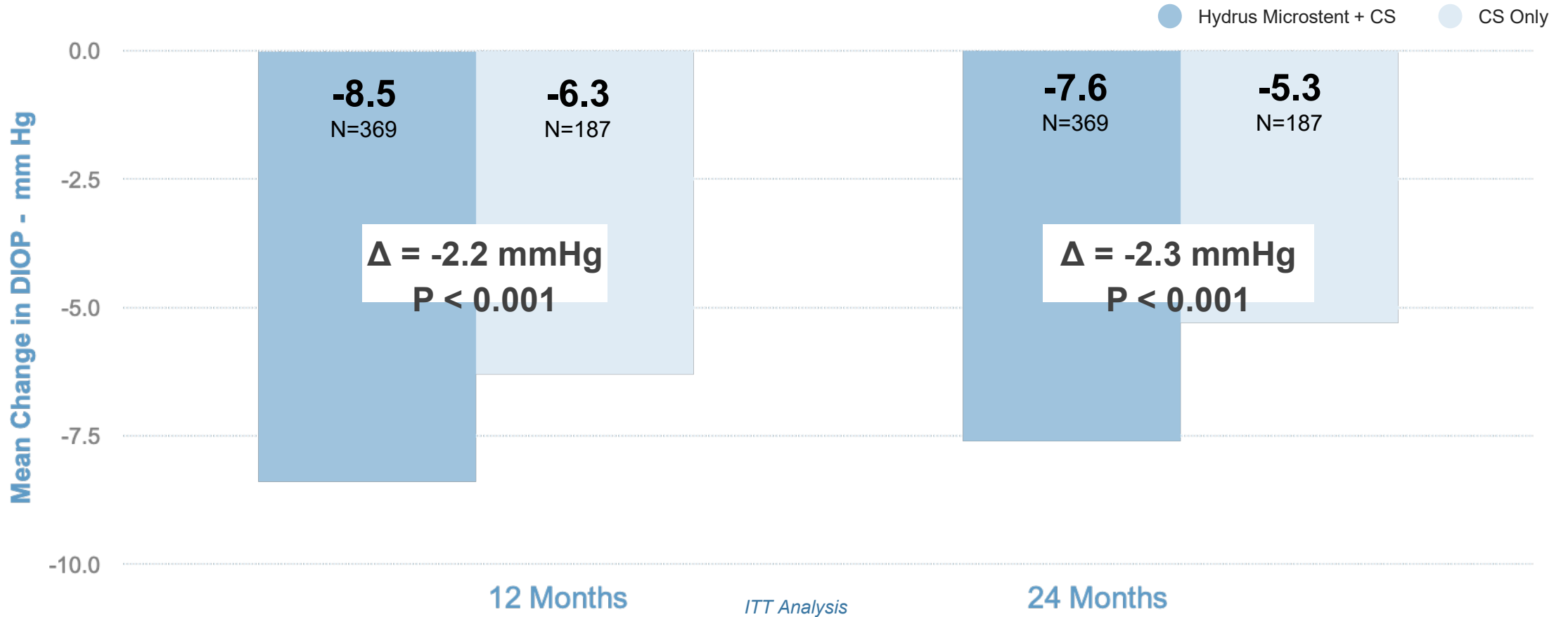


1. Samuelson TW, Chang DF, Marquis R, et al. A Schlemm canal microstent for intraocular pressure reduction in primary open-angle glaucoma and cataract: The HORIZON Study. *Ophthalmology* 2019;126:29-37.

HORIZON Secondary Endpoint¹

CHANGE IN WASHED OUT DIOP AT 24 MONTHS

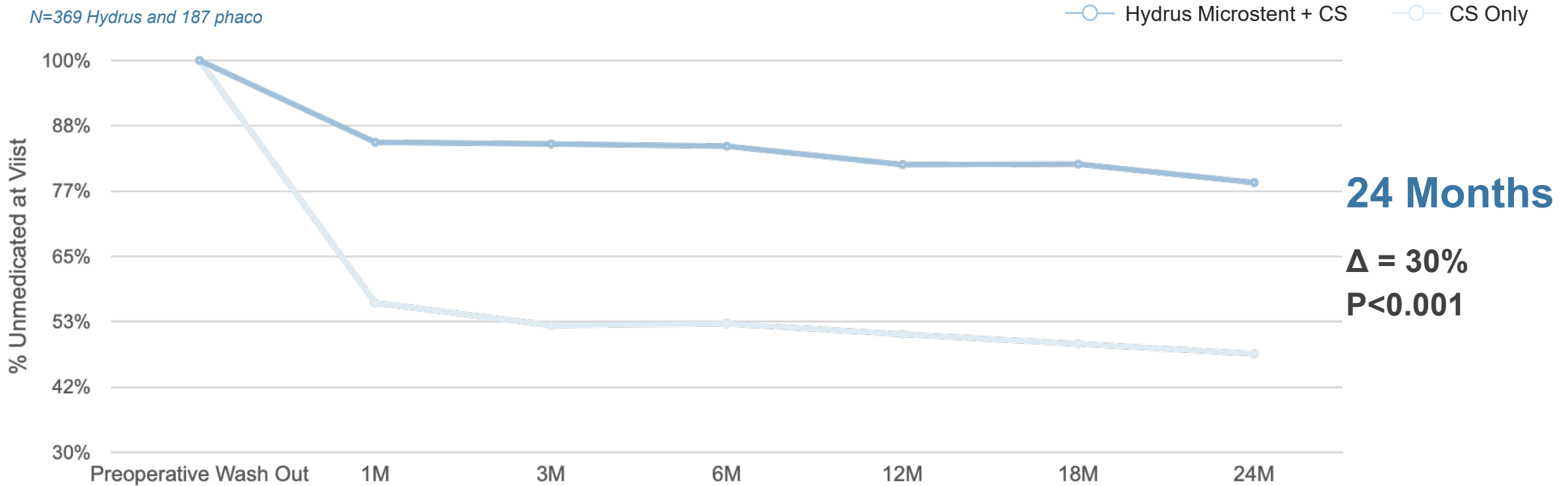
Largest IOP reduction of all MIGS pivotal trials to date¹⁻⁴



1. Samuelson TW, Chang DF, Marquis R, et al. A Schlemm canal microstent for intraocular pressure reduction in primary open-angle glaucoma and cataract: The HORIZON Study. *Ophthalmology* 2019;126:29-37. 2. Vold S, Ahmed II, Craven ER, et al; CyPass Study Group. Two-Year COMPASS Trial Results: Supraciliary Microstenting with Phacoemulsification in Patients with Open-Angle Glaucoma and Cataracts. *Ophthalmology*. 2016;123(10):2103-2112. 3. US Food and Drug Administration. Summary of Safety and Effectiveness Data (SSED): Glaukos iStent® Trabecular Micro-Bypass Stent. US Food and Drug Administration website. https://www.accessdata.fda.gov/cdrh_docs/pdf8/P080030B.pdf. Published June 25, 2012. 4. US Food and Drug Administration. Summary of Safety and Effectiveness Data (SSED): iStent inject® Trabecular Micro-Bypass System. US Food and Drug Administration website. https://www.accessdata.fda.gov/cdrh_docs/pdf17/P170043b.pdf. Published June 21, 2018.

HORIZON Medication Free¹

Largest treatment effect of all MIGS pivotal trials to date¹⁻⁴

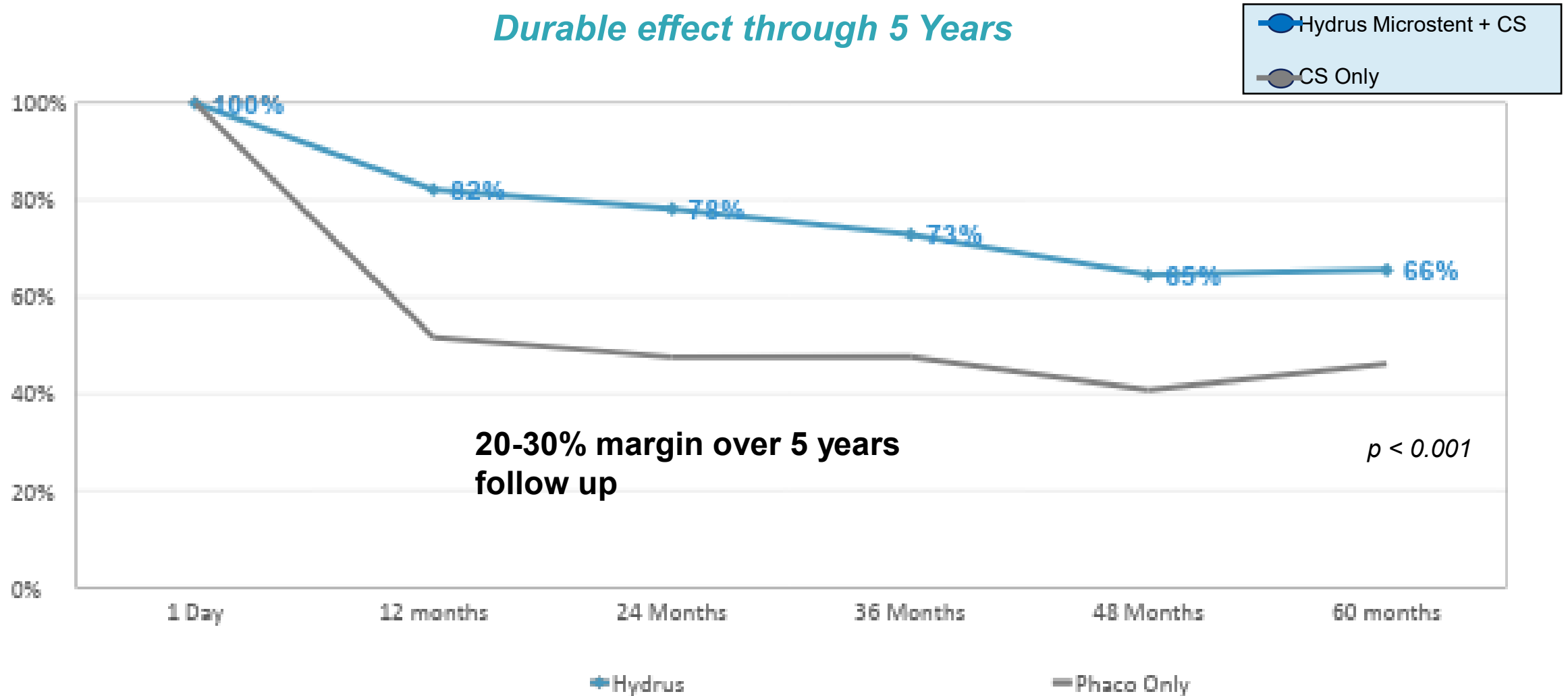


1. Samuelson TW, Chang DF, Marquis R, et al. A Schlemm canal microstent for intraocular pressure reduction in primary open-angle glaucoma and cataract: The HORIZON Study. *Ophthalmology* 2019;126:29-37. 2. Vold S, Ahmed II, Craven ER, et al; CyPass Study Group. Two-Year COMPASS Trial Results: Supraciliary Microstenting with Phacoemulsification in Patients with Open-Angle Glaucoma and Cataracts. *Ophthalmology*. 2016;123(10):2103-2112. 3. US Food and Drug Administration. Summary of Safety and Effectiveness Data (SSED): Glaukos iStent® Trabecular Micro-Bypass Stent. US Food and Drug Administration website. https://www.accessdata.fda.gov/cdrh_docs/pdf8/P080030B.pdf. Published June 25, 2012. 4. US Food and Drug Administration. Summary of Safety and Effectiveness Data (SSED): iStent inject® Trabecular Micro-Bypass System. US Food and Drug Administration website. https://www.accessdata.fda.gov/cdrh_docs/pdf17/P170043b.pdf. Published June 21, 2018.

HORIZON: Medication Free¹

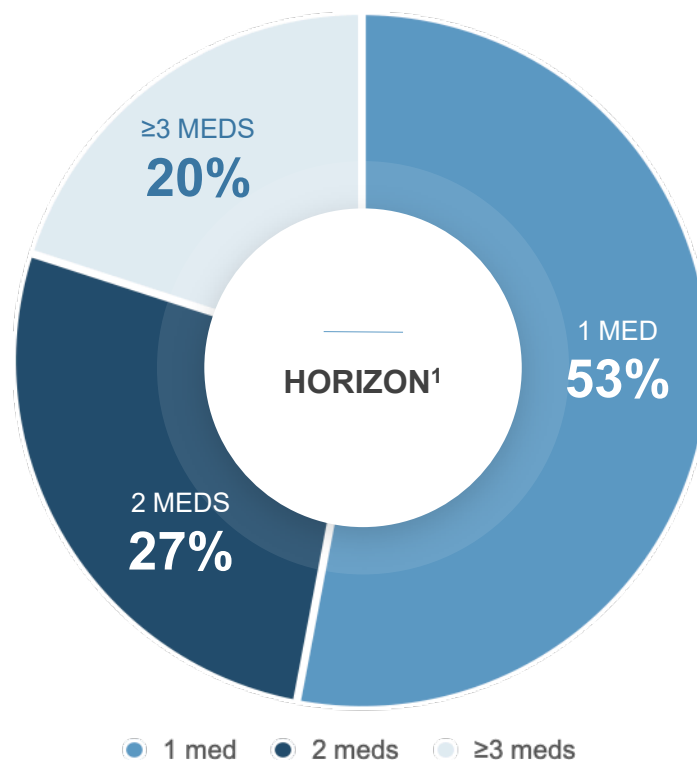
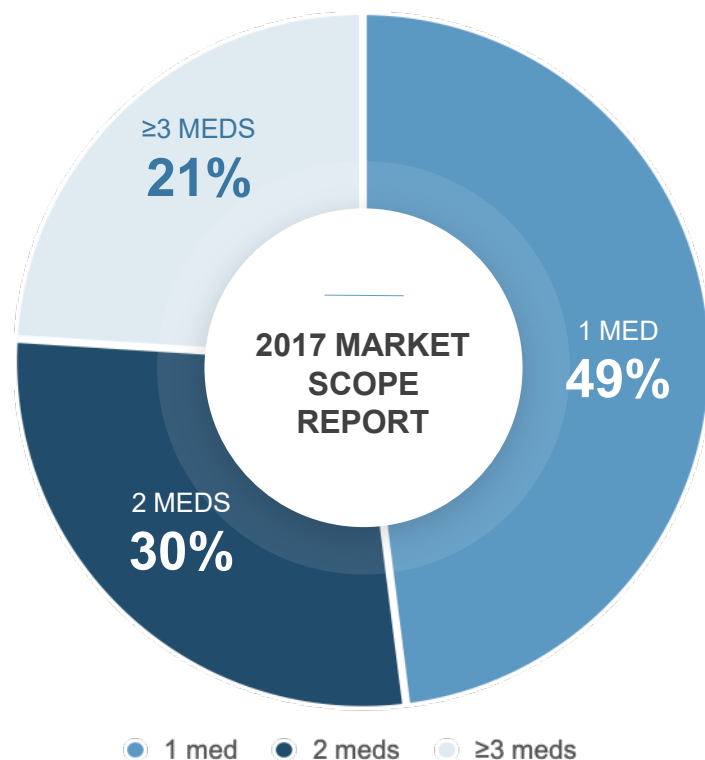
MEDICATION FREE 0-60 MONTHS

Durable effect through 5 Years



Hydrus in the 1-Med Patient

US GLAUCOMA PRESCRIPTIONS



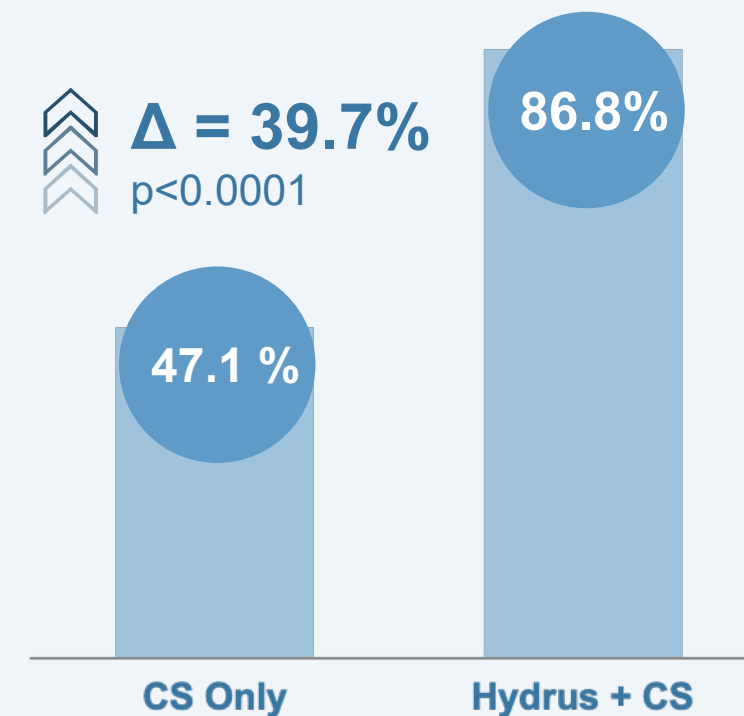
% OF 1-MED PATIENTS MEDICATION-FREE

HORIZON

24 Months

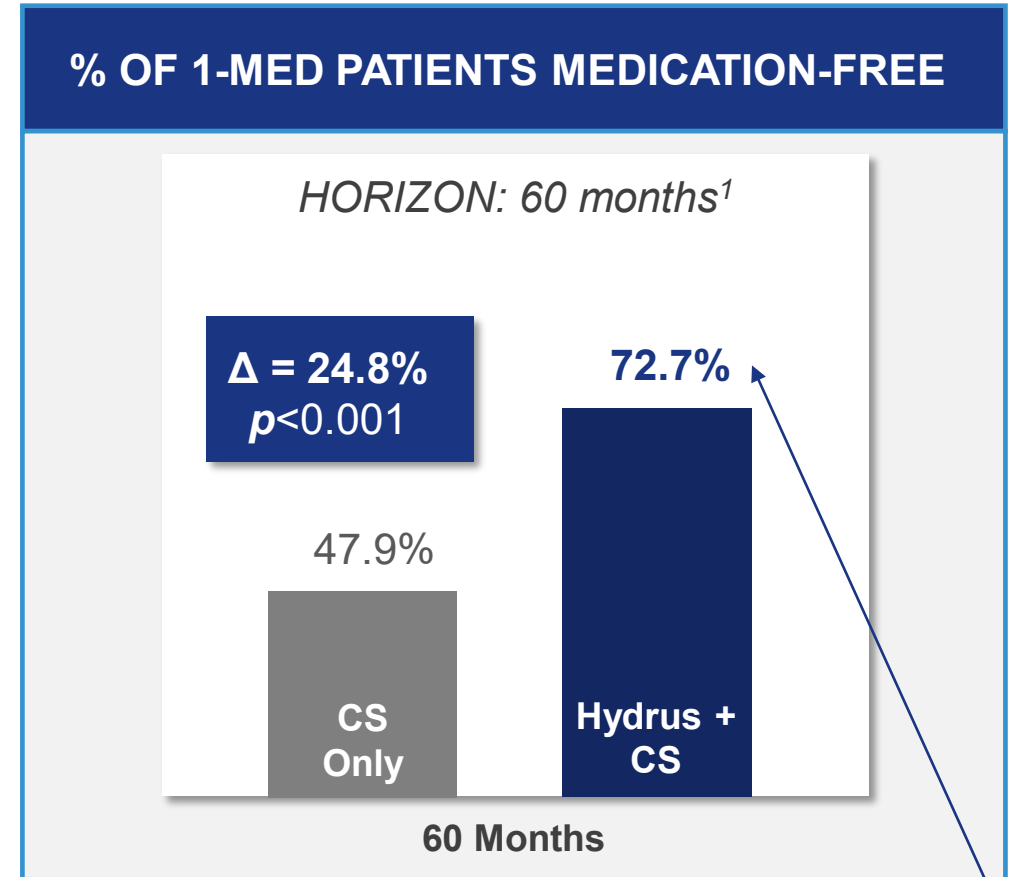
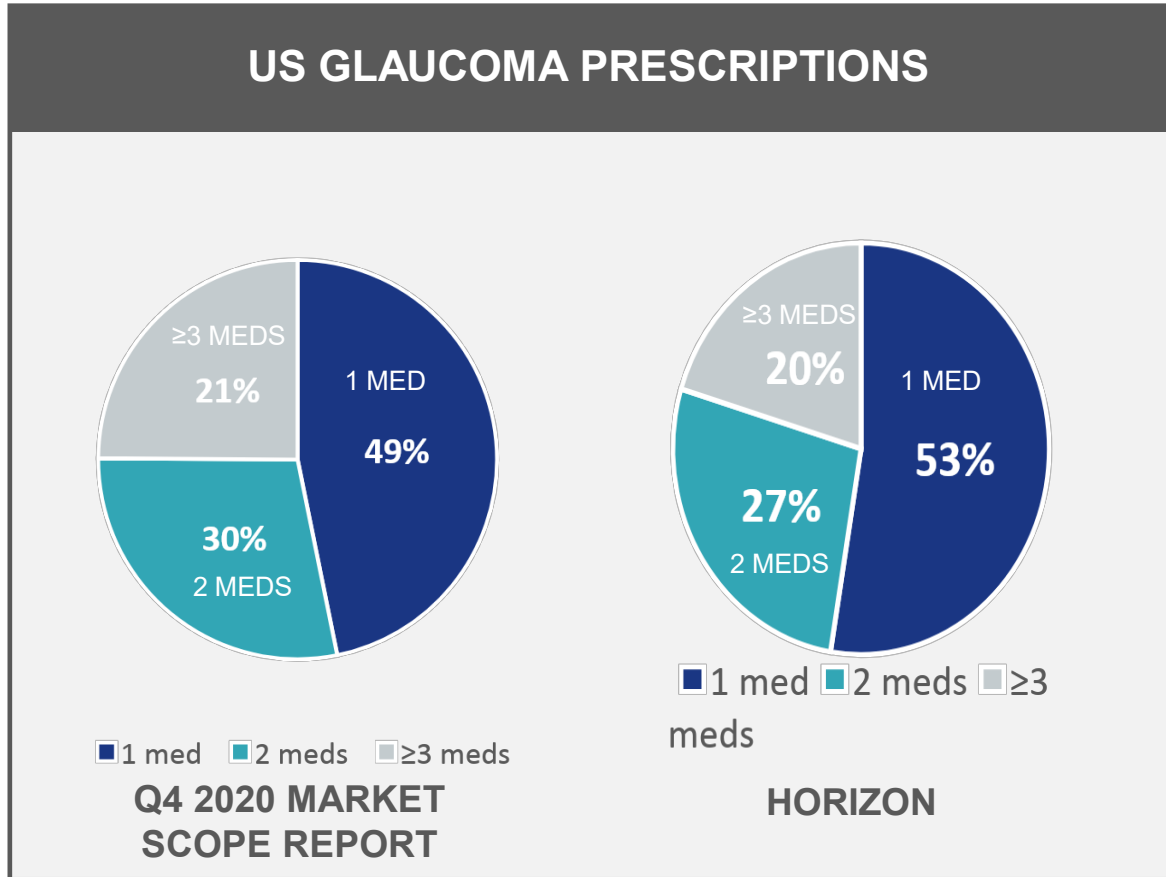


Δ = 39.7%
p < 0.0001



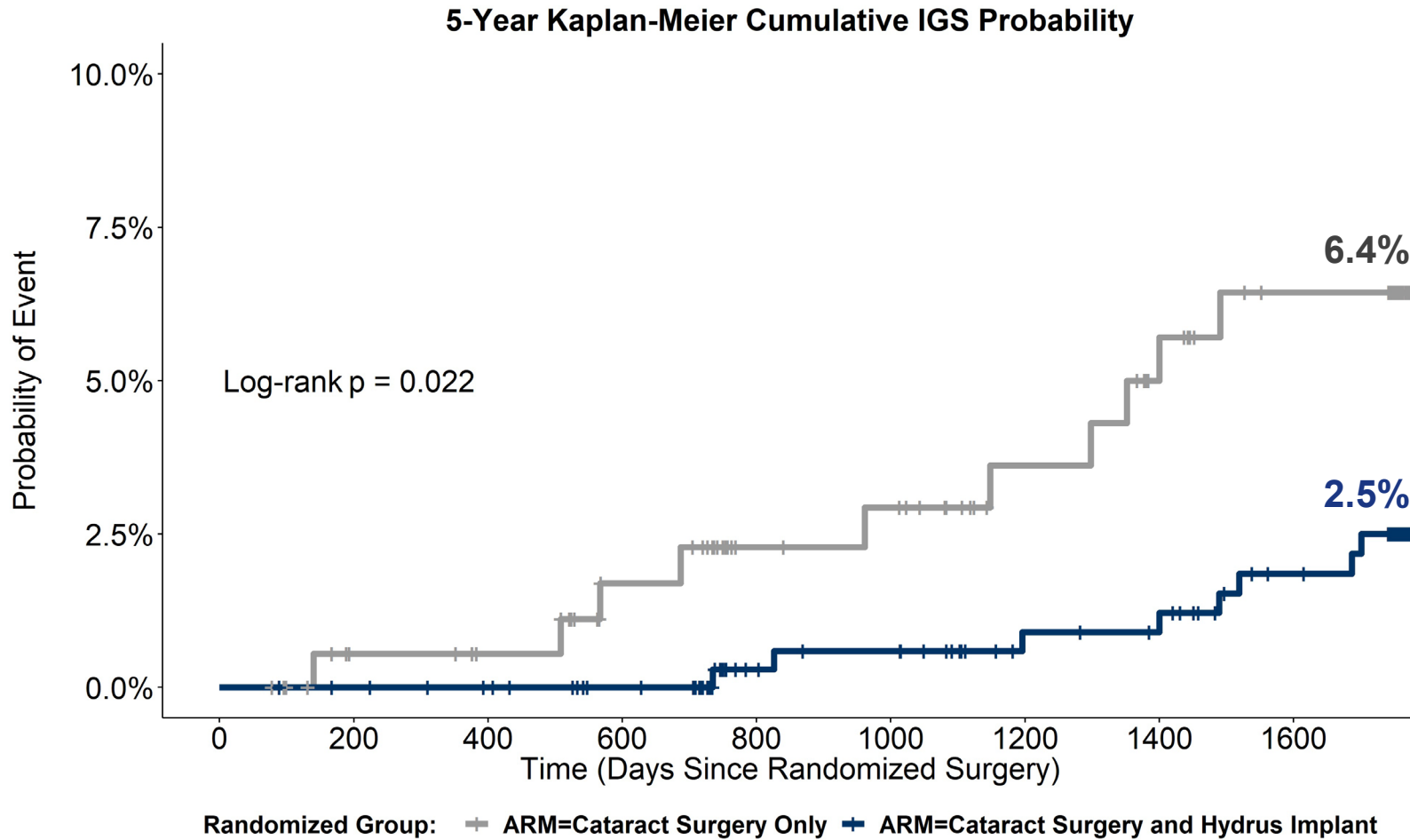
1. Samuelson TW, Chang DF, Marquis R, et al. A Schlemm canal microstent for intraocular pressure reduction in primary open-angle glaucoma and cataract: The HORIZON Study. *Ophthalmology* 2019;126:29-37.

Drop Elimination in the 1 Med Patient



Remain drop-free 5 years after surgery

Key Finding: Reduced Risk of Reoperation¹



Incisional Glaucoma Surgery:

- Trabeculectomy,
- Tube shunt,
- Cilioablative procedure

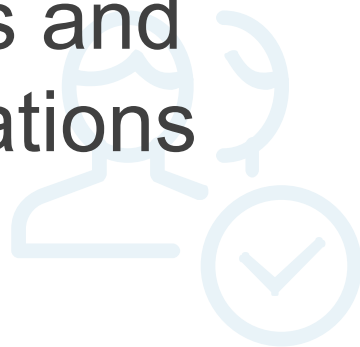
61% Reduction in Risk of SSIs in eyes treated with Hydrus

Two-thirds of the patients who had an IGS were mild at baseline

(Visual Field MD better than -6 dB)

3

Patient Selection & Postoperative Findings and Observations



Who is an Ideal Hydrus[®] Microstent Candidate?

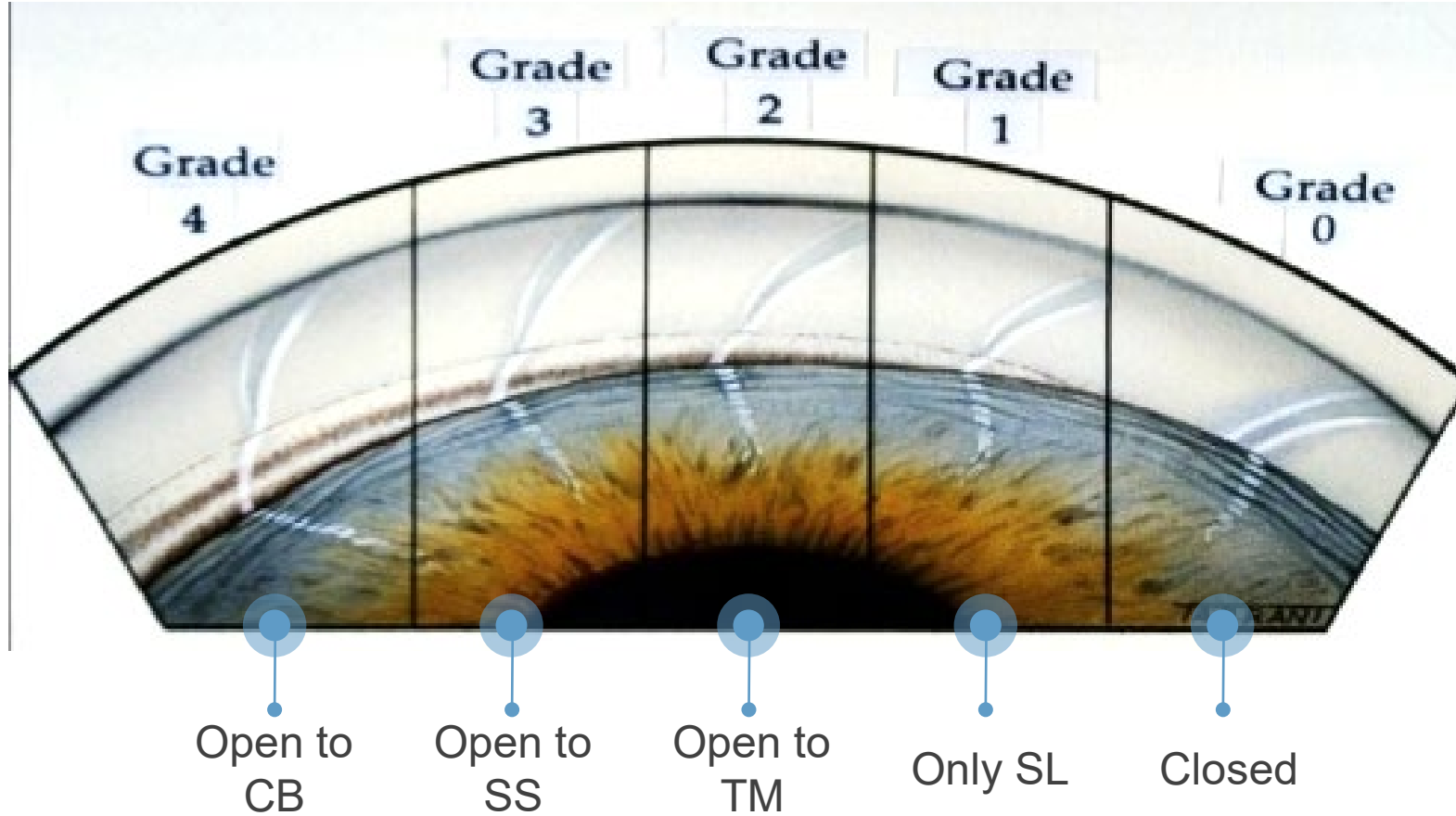


INDICATIONS FOR USE

The Hydrus Microstent is indicated for use in conjunction with cataract surgery for the reduction of intraocular pressure (IOP) in adult patients with mild to moderate primary open-angle glaucoma (POAG).

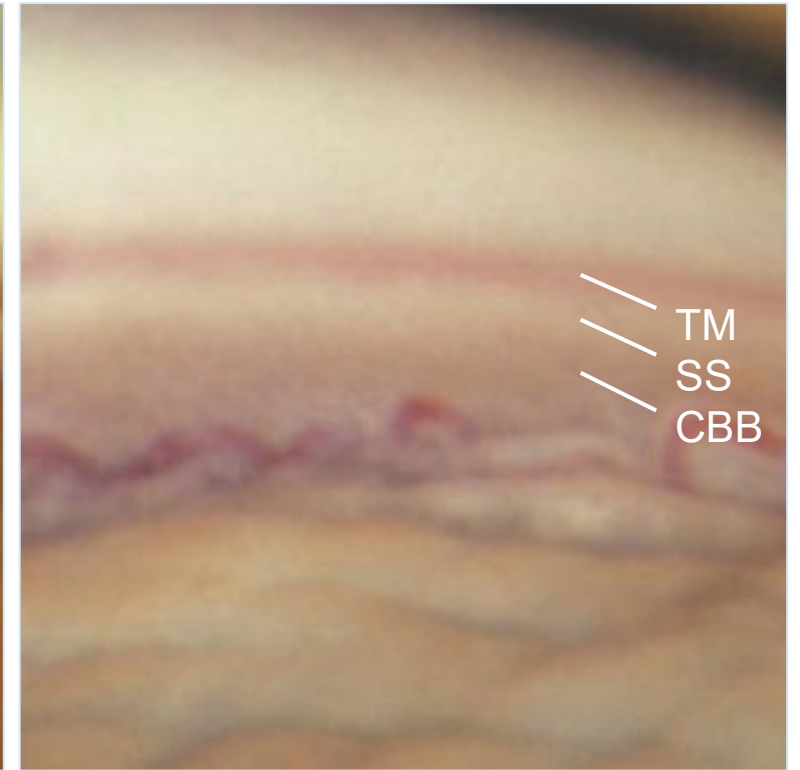
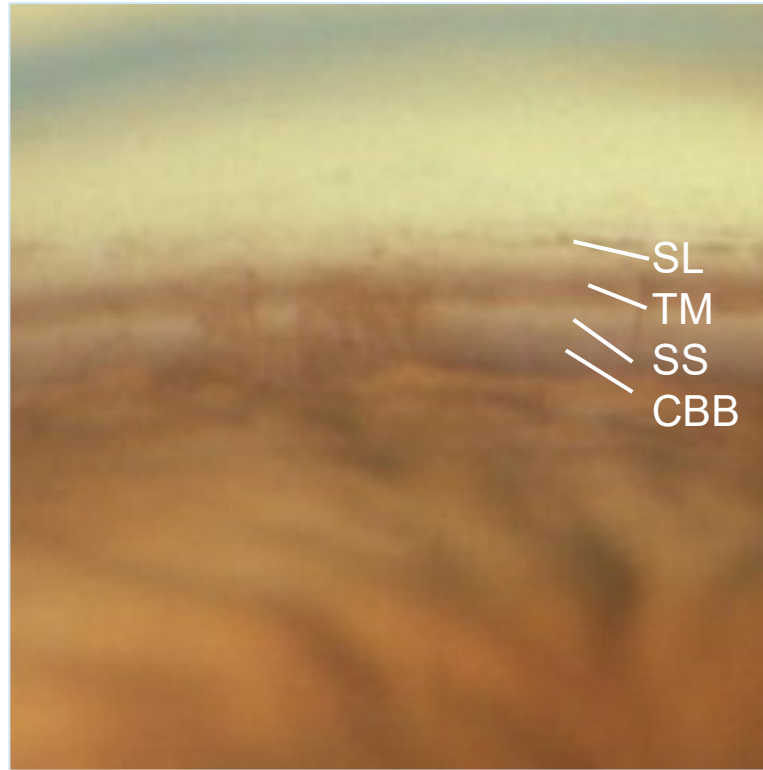
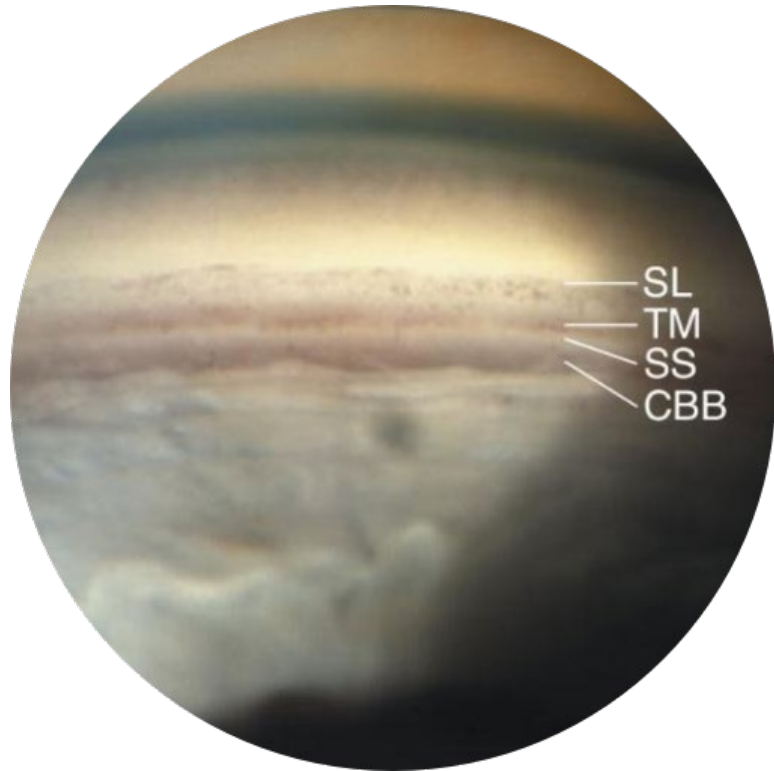
- ✓ Normal angle anatomy
 - Shaffer Grade 3 & 4
- ✓ Clear media for adequate visualization
- ✓ Up to 4 glaucoma medication
 - May include prior history of SLT
- ✓ The Hydrus Microstent has not been established as an alternative to the primary treatment of glaucoma with medications.

Angle Grading – Shaffer Classification



Confirm Shaffer grade
3 or 4 for Hydrus
candidacy

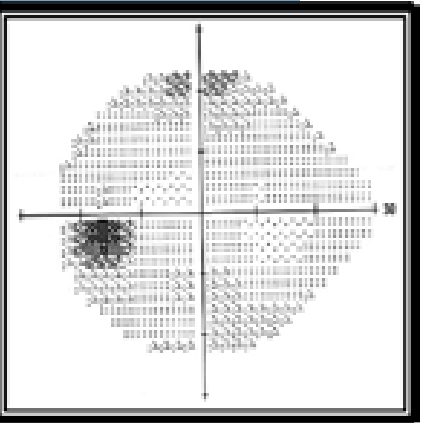
Recognizing Variations in Relevant Anatomy



Source: Alward WLM. Color Atlas of Gonioscopy. Barcelona: Wolfe; 1994.

SL - Schwalbe's Line
TM - trabecular meshwork
SS - scleral spur
CBB - ciliary body band

Recognizing Mild or Early Stage Glaucoma



Optic nerve abnormalities associated with glaucoma

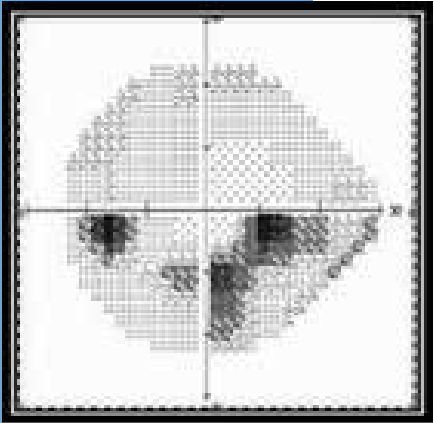
But NO visual field abnormalities on any visual field test

OR abnormalities present only on short-wave-length automated perimetry or frequency doubling perimetry

• Current ICD-10 Glaucoma Reference Guide

*Source: American Academy of Ophthalmology
American Glaucoma Society*

Moderate Stage Glaucoma



Optic nerve abnormalities consistent with glaucoma

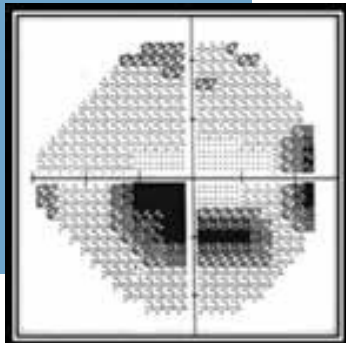
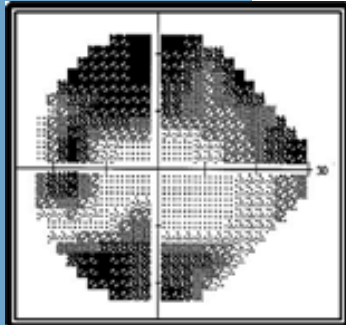
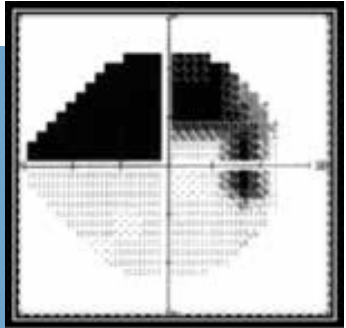
AND glaucomatous visual field abnormalities in ONE hemifield and

NOT within 5 degrees of fixation

• Current ICD-10 Glaucoma Reference Guide

*Source: American Academy of Ophthalmology
American Glaucoma Society*

Advanced, Late, Severe Stage Glaucoma



Optic nerve abnormalities consistent with glaucoma

AND glaucomatous visual field abnormalities in BOTH hemifields

AND/OR loss within 5 degrees of fixation in at least one hemifield

• Current ICD-10 Glaucoma Reference Guide

Source: American Academy of Ophthalmology
American Glaucoma Society

Contraindications

The Hydrus[®] Microstent is contraindicated under the following circumstances or conditions:

In eyes with angle closure glaucoma

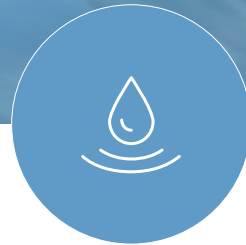
In eyes with traumatic, malignant, uveitic, or neovascular glaucoma or discernible congenital anomalies of the anterior chamber (AC) angle

Postoperative Evaluation



Timeline

- › Similar to cataract surgery
- › 1D, 1WK, 1M, 3M



Drops

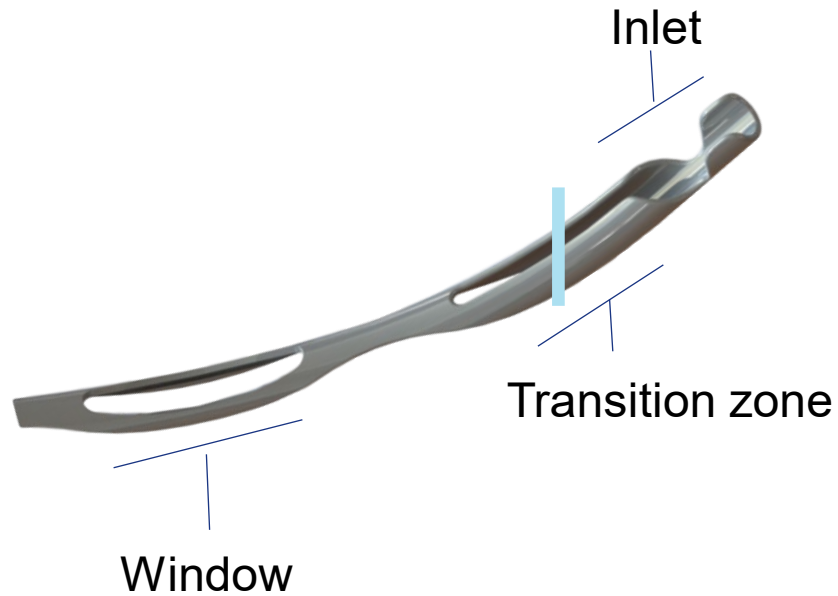
- › Antibiotic, NSAID, and steroid



Communication

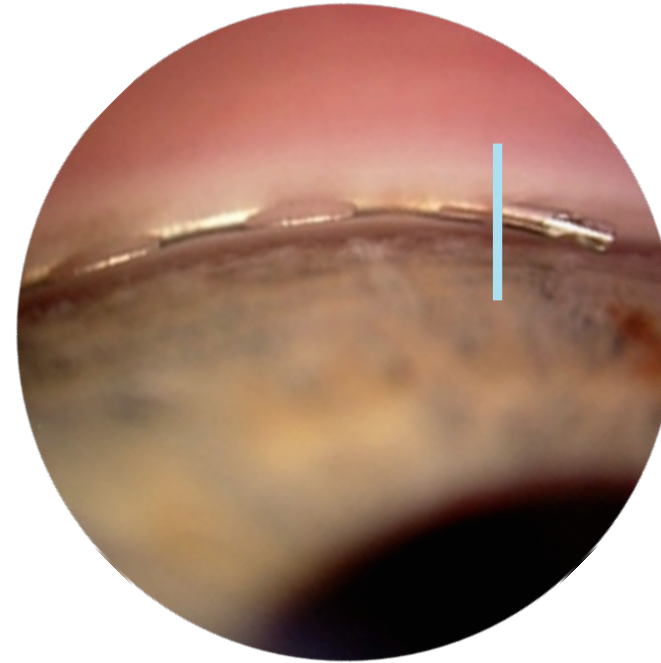
- › Team approach with surgeon regarding medical management

Confirmation of Proper Placement

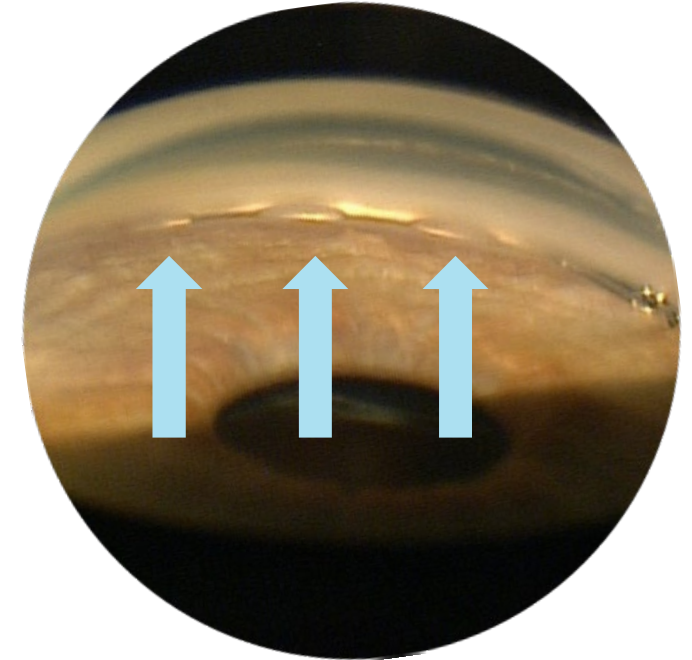


Appreciate the trabecular meshwork covering 50% – 75% of the Hydrus transition zone

Approximately 1mm of the stent will be in the anterior chamber



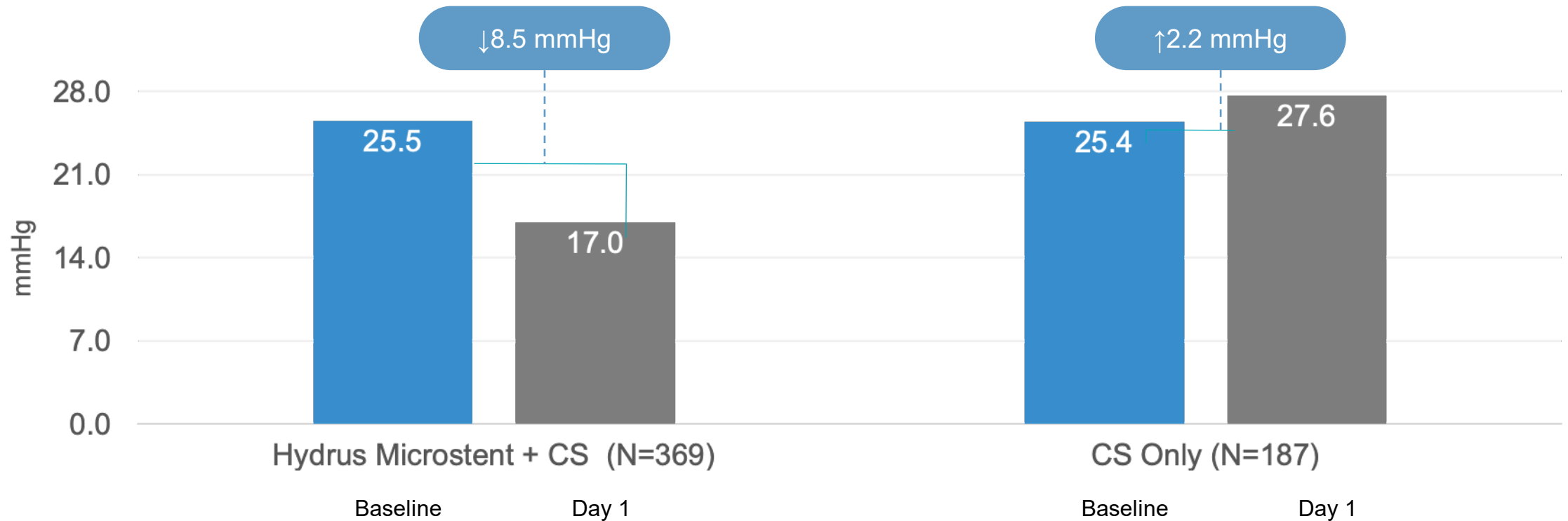
Appreciate Hydrus windows behind the trabecular meshwork



Hydrus will appear dull positioned in Schlemm's canal behind the trabecular meshwork

Short Term: Immediate IOP Reduction

IOP Change Post Operative Day 1



Source: Zebardast N, Zheng C, Jampel H. Effect of a Schlemm's Canal Microstent on Early Post-operative IOP Following Cataract Surgery: An Analysis of the HORIZON randomized controlled trial. *Ophthalmology* 2020 (in press). doi: <https://doi.org/10.1016/j.optha.2020.01.025>

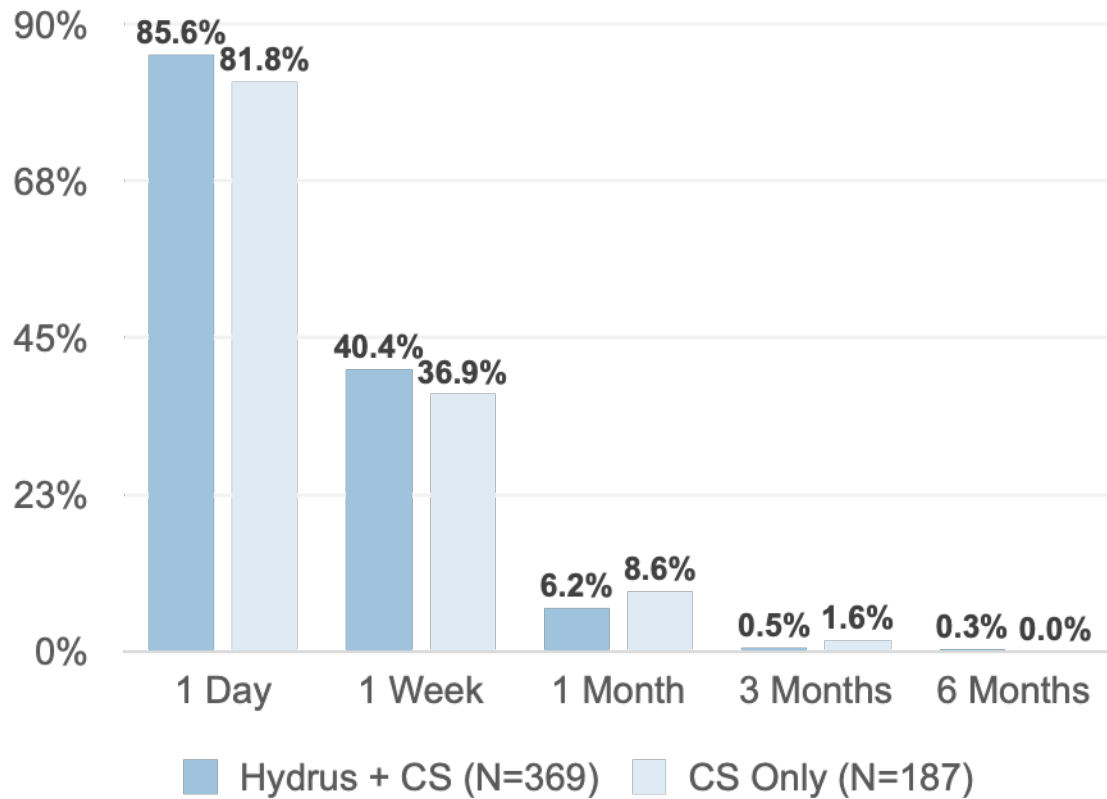
Early Exam Findings

	HYDRUS	PHACO ONLY	RESOLUTION
Hyphema 1 day → 7 days Micro or layered < 1mm Layered ≥ 1mm	10.6% → 3.8% 2.7% → 0.8%	0% 0%	100% resolved by 1M without intervention
Corneal Edema 1 day → 7 days ≥ 2+ stromal edema ≥ 2+ endothelial folds	11.1% → 0.8% 7.6% → 0.3%	9.1% → 0% 4.3% → 0%	>99% edema/folds resolved by 1M without intervention
Cell and Flare 1 day → 7 days ≥ 1+ cells ≥ 2+ flare	62.9% → 15.2% 14.9% → 1.4%	52.4% → 10.2% 9.6% → 0.5%	98% of cell and flare resolved by 1M without intervention
Persistent inflammation	0.5%	2.1%	Extended steroids >1M
Rebound inflammation	5.1%	1.6%	New course of steroids

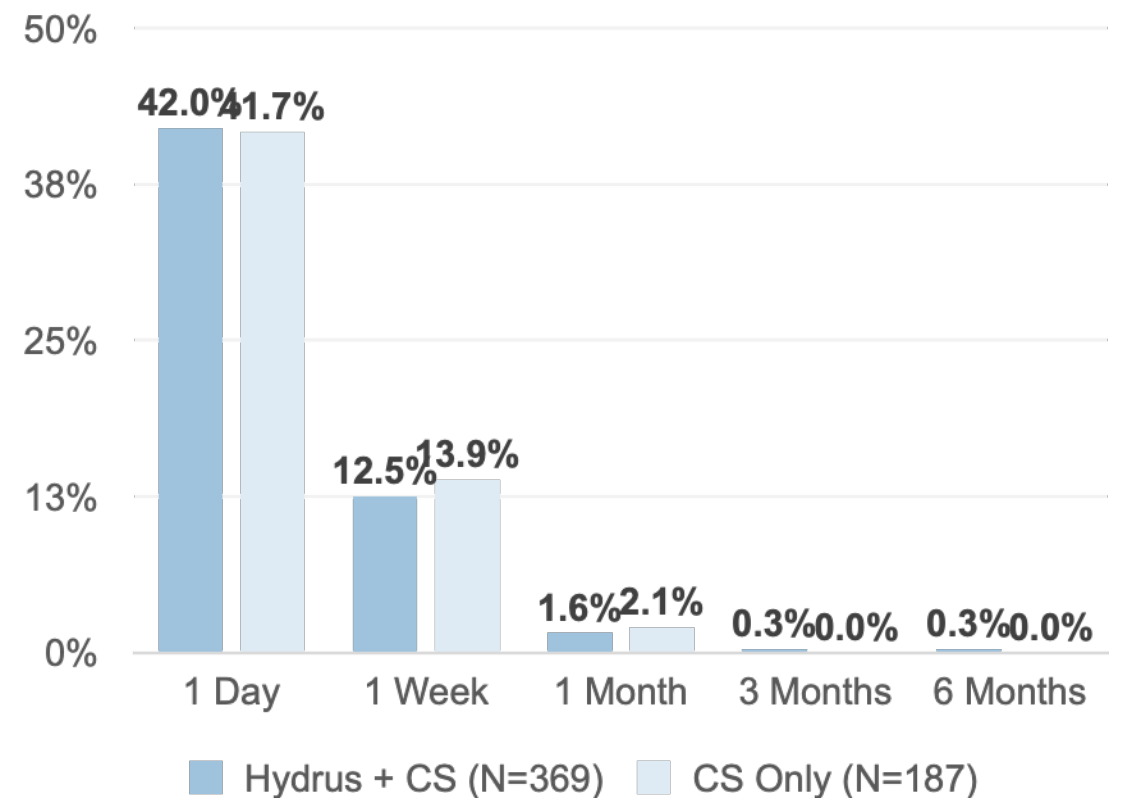
Slit Lamp Findings – Cell and Flare*

Postoperative Inflammation comparable to Cataract Surgery

AC Cells $\geq 0.5+$



AC Flare $\geq 1+$



Safety – Stable from Year 2 to 4



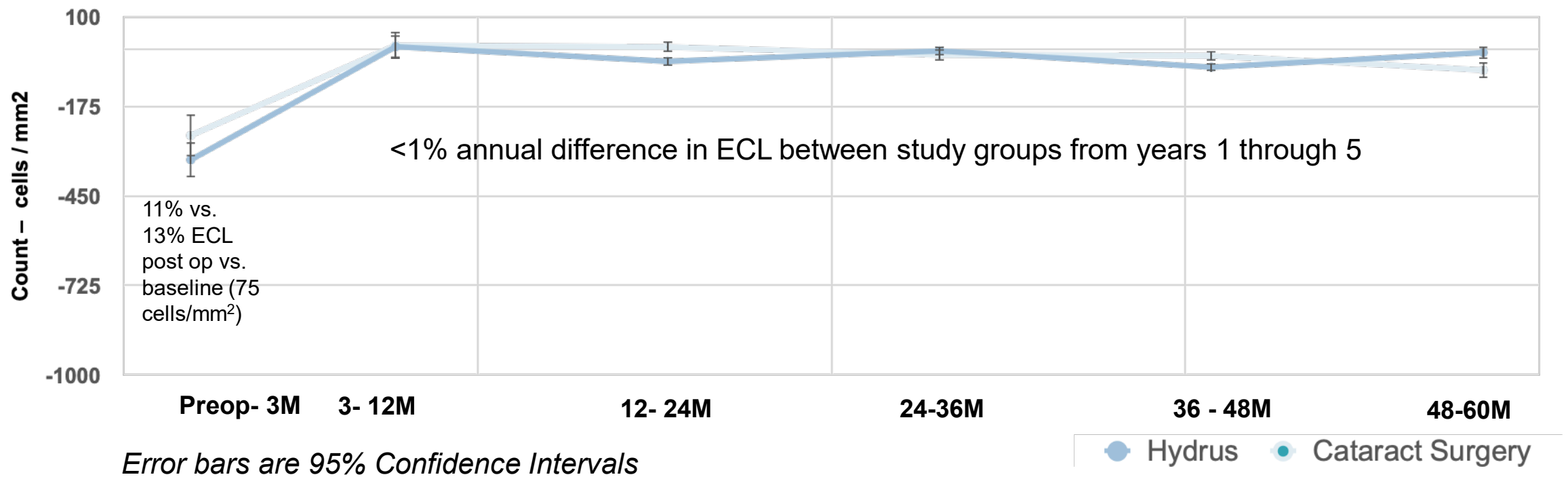
Post Operative Events

	Cumulative – 2 Years ¹		Cumulative – 4 Years ²	
	HYDRUS MS (N=369)	CS Only (N=187)	HYDRUS MS (N=369)	CS Only (N=187)
IOP elevation	0.5%	2.7%	0.8%	2.7%
Hypotony	0	0	0	0
Loss of BCVA \geq 2 lines after 3 months	1.4%	1.6%	1.9%	2.1%
Loss of VF (MD \geq 2.5 dB)	4.3%	5.3%	7.3%	9.1%
Nickel/allergic reaction	0	-	0	-
Focal PAS -				
› Inlet visually obscured – “Obstructive”	3.5%	0	4.3%	0
› Inlet visible -- "Non-obstructive”	7.3%	2.1%	8.7%	3.2%
Corneal Edema	0.5%	0.5%	0.5%	0.5%

Note: PAS observation based on gonioscopic appearance not IOP

Corneal Endothelial Cell Counts

Year to Year Change in Mean Central ECL



Rhee DJ. 4 Year Findings from the HORIZON Trial AGS 2020, Washington DC

Backup





Communication with your Hydrus Surgeon



Uncontrolled IOP



Hypotony



Significant hyphema



Device malposition



Chronic
inflammation/pain



Rapidly progressing
glaucoma



Take Home Points



Make an Impact With Your Recommendation



**One shot for improvement
in quality of life and
medication reduction**



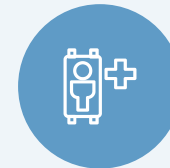
Potential to lower IOP



Reduce the risk of secondary
incisional glaucoma surgery



Potential to reduce the
number of medications

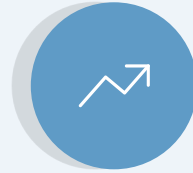


Preserve treatment options
for the patient going forward

Evidence-based Support for Your Recommendation



**Lifetime diseases
deserve durable
solutions ...
Hydrus Microstent!**



Increasing prevalence of cataracts and glaucoma



Hydrus Tri-Modal mechanism of action



Horizon data

- 2.3mmHg reduction over phaco alone
- 30% medication free over phaco alone
- 65% reduction in SSI

Case 1

- 67 yo AA F referred for cataract and glaucoma evaluation
- C/o blurry vision, glare
- BCVa 20/40 OU
- Ta 24/25 mmHg
- Pachy 512/516

On exam

- 2+ NS OU
- C/D 0.8 OU
- OCT ONH inferior NFL/GCC thinning OU
- Normal VF OU

Case 1

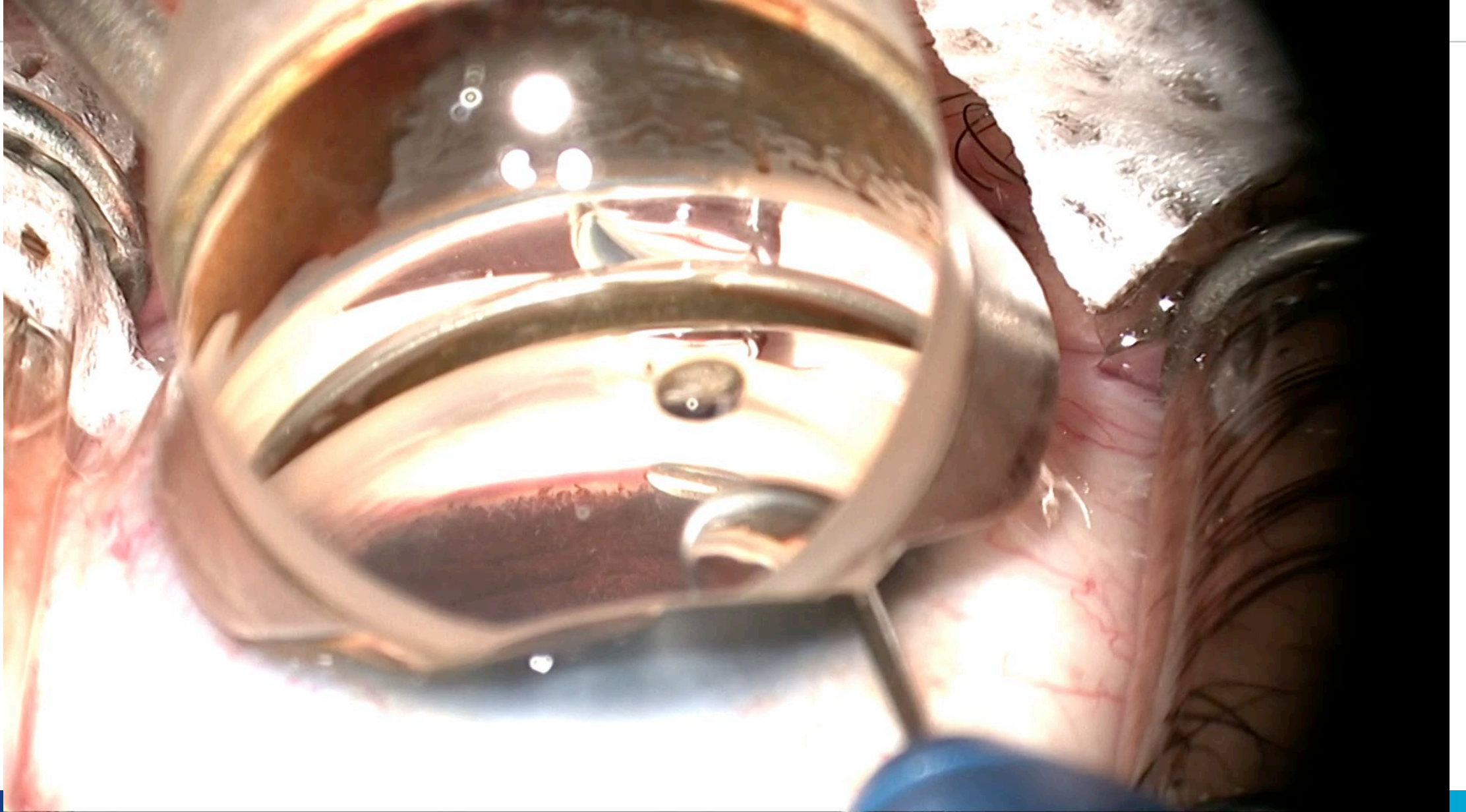
Options

1. CEIOL + glaucoma drop
2. CEIOL + SLT
3. CEIOL + TM stent

Patient had CEIOL/Hydrus OD then OS

4 months post-op: Va 20/20, Ta 17/18

Hydrus Microstent



Case 2

- 52 yo caucasian M
- POHx:
 - OD VS NS, severe POAG, s/p SLT x 3
 - OS corneal edema, mature cataract, severe POAG, s/p GDI x 2, s/p tube erosion x 2, endophthalmitis, s/p PPV
- C/o gradual vision decline OD
- BCVa OD 20/80, OS LP
- Ta 32/4 on 3 classes of glaucoma meds OD

On exam

- OD 2+ NS, C/D 0.95, severe superior NFL/GCC thinning, VF inferior arcuate scotoma approaching fixation

Case 2

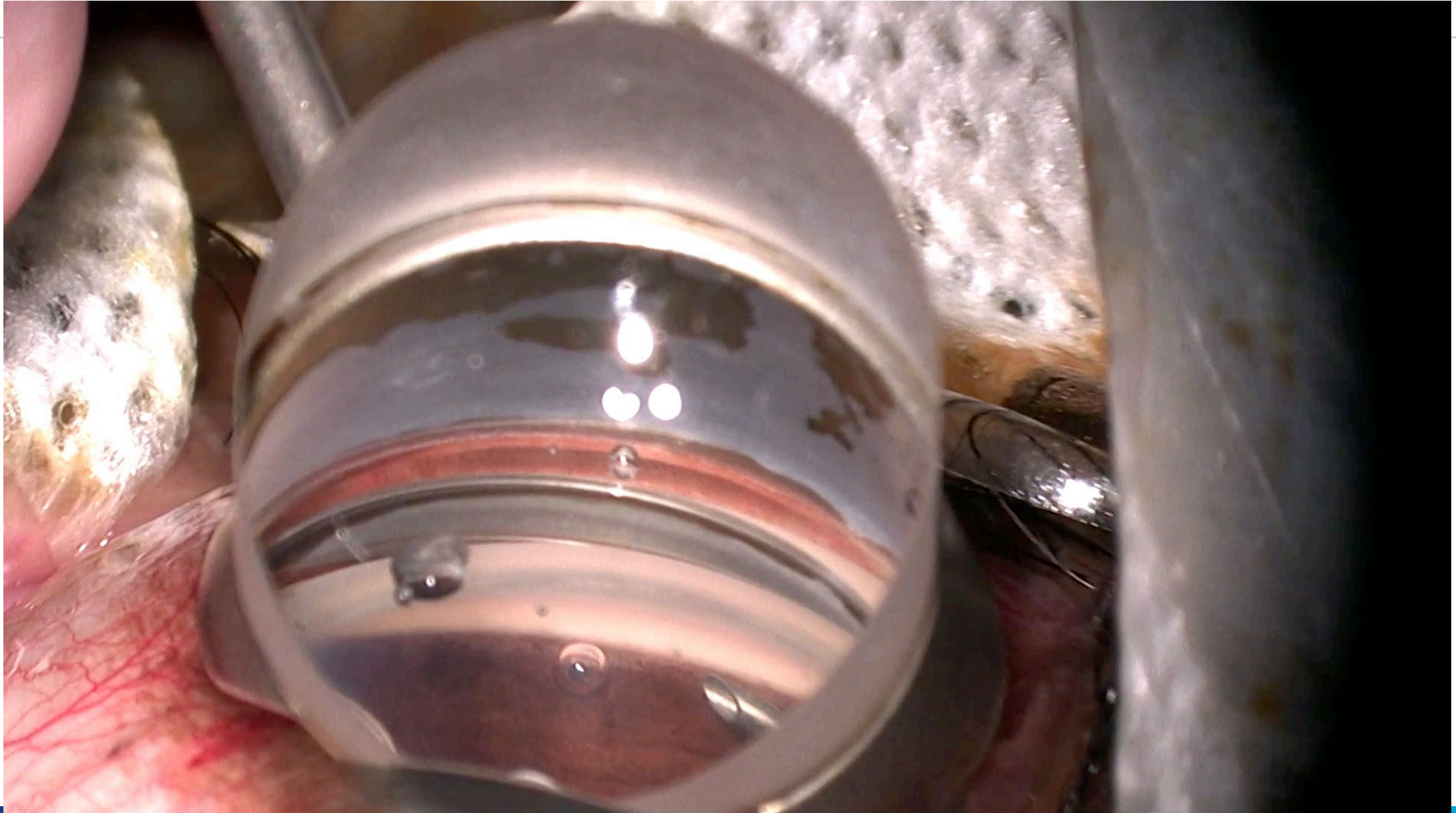
Options

1. CEIOL + glaucoma drops (issues with compliance)
2. CEIOL + SLT (will be his 4th SLT)
3. CEIOL + GDI
4. CEIOL + combined MIGS

Patient had CEIOL/ab interno canaloplasty/Hydrus

5 months post-op: Va 20/40, Ta 17 on PGA at bedtime

Ab interno Canaloplasty with OMNI plus Hydrus Microstent



5

Q&A





Thank you! Please join us for our next COPE event



Date: May 13, 2021

Time: 5:00 pm PST

Speaker: Dr. Elise Kramer

Topic: Dry Eye Disease – Current Eye Drop Options

COPE: One hour live CE



**Scan QR code
to register**

Open OE tracker app and scan QR code to receive COPE CE credit instantly!

ARBO QR Code

**COPE Course 71848-GL
COPE Event**

