

On behalf of Vision Expo, we sincerely
thank you for being with us this year.

Vision Expo Has Gone Green!

We have eliminated all paper session evaluation forms. Please be sure to complete your electronic session evaluations online when you login to request your CE Letter for each course you attended! Your feedback is important to us as our Conference Advisory Board considers content and speakers for future meetings to provide you with the best education possible.



1

Justin Schweitzer, OD, FAAO has received honorarium from:

- Aerie – C/L
- Alcon – C/L
- Allergan – C/L
- Bausch + Lomb – C/L
- Ocular Therapeutix - C
- EyePoint - C
- Sight Sciences – C
- Dompe - C
- Sun - C
- Equinox - I
- Reichert - C
- J&J – C/L
- Glaukos - L
- Horizon – C
- Quidel – C
- Zeiss – C
- MediPrint
- Chief Medical Editor: Modern Optometry

2

Disclosures - Walter O. Whitley, OD, MBA, FAAO has received consulting fees, honorarium or research funding from:

- Aerie: A, B
- Alcon: A, B, D
- Allergan: A, B
- Astareal: A
- Bausch and Lomb: A, B
- Biotissue: A, B
- Bruder: A
- Carl Zeiss Meditec: A
- CollaborativeEye – Co-Chief Medical Editor
- Eyevance: A, B
- Glaukos: A, B
- Horizon: A
- J&J Vision: A, B
- Kala: A
- LeoLens: A
- Novartis: A, B
- Ocusoft: A, B
- Ocular Therapeutix: A
- Quidel: A
- Review of Optometry – Contributing Editor
- Science Based Health: A, B
- Shire: A, B
- Sun Pharmaceuticals: A
- TearLab Corporation: A
- Vertical Pharmaceuticals: A

3

Disclosures: Scott G. Hauswirth, OD, FAAO has received consulting fees, honorarium, investment income, or research funding from:

BioTissue – C	NuSight Medical - C
Dompe – C	Ocular Therapeutix – C/R
EyeVance - C	Oyster Point - C
Glaukos – C	Science Based Health – C
Horizon – C/I	Sun Pharma – C
Hovione - R	Sylentis – R
Kala – C	Tear Restore – C/R/I
NicOx - R	Tear Solutions – R

4

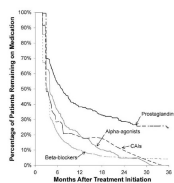
MIGS in Glaucoma

Justin Schweitzer, OD, FAAO

Walter Whitely, OD, MBA, FAAO

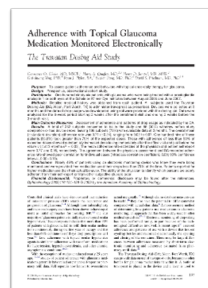
Scott G. Hauswirth, OD, FAAO

5

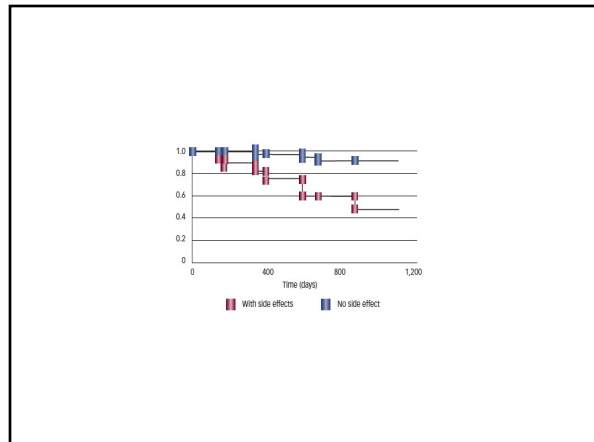


More than **90%** of patients are nonadherent to their ocular medication dosing regimens, and nearly **50%** discontinue taking their medications before 6 months¹

Nordstrom BL. Persistence and adherence with topical glaucoma therapy. *Am J Ophthalmol*. 2005;140:598-606.



7



8

Is OSD a concern in your glaucoma patients and can MIGS play a role?

9

Glaucoma & Dry Eye

[Abstract: 07776, doi: 10.1093/ptn/pnz088] [Download PDF]

Melbinom Gland Performance in Glaucomatous Patients With Long-term Institution of IOP-lowering Medications.

Quattrocchi AA*, Saperstein M, Saperstein J, Saperstein L, Acker D, Saperstein T, Saperstein R
© All author information

Abstract:
PURPOSE: To investigate the melbinom gland (MG) performance in patients with glaucoma under topical intracocular pressure (IOP)-lowering medications.
METHOD: This was a cross-sectional case-control study. Patients with glaucoma under different glaucoma and ocular surface therapies of topical IOP-lowering medications were included. A total of 37 eyes of 37 healthy participants and 104 eyes of 104 patients with glaucoma were analyzed. The number of melbinom glands (MGs), MG activity score for each participant based on the corneal, limbal, frequency, and duration of topical IOP-lowering medications used, and participant baseline MG and tear measurements, including tear break-up time (TBUT), eye dryness (SPEDS), conjunctivitis, lipid layer thickness, MG secretion and drainage, lacrimal tear, tear breakup time, and blinking pattern.
RESULTS: Patients with glaucoma had significantly lower SPEDS scores, shorter tear film thicknesses, worse ocular surface health, and lower MG secretion compared with healthy participants. Among the patients with glaucoma, MG loss rates (P=0.001) and MG secretion rates (P<0.001) were significantly correlated with the B&B score. Compared with the low B&B group (low B&B), the high B&B group (high B&B) had significantly more MG secretion rate (mean 0.14 vs 0.03, P=0.001).
CONCLUSIONS: Patients with a higher burden of glaucoma therapy had more severe tear film and more severe MG dysfunction. These results should be potentially important to patients with glaucoma having a higher burden of antiglaucoma regimen.

48% Abnormal OSDI Scores

53% Diagnosed withDED

60% Reported Mild, Moderate or SevereDED Symptoms

Fekcher, R., Goffeely, D., Budenz, D., Stewart, J., & Stewart W. (2010). Jaune. Prevalence of Ocular Surface Complaints in Patients with Glaucoma Using Topical Intracocular Pressure-Lowering Medications. Cornea, 29(6), 618-621.

10

The Association of Chronic Topical Prostaglandin Analog Use With Meibomian Gland Dysfunction

Mocan, Mehmet C. MD; Uzunosmanoglu, Enes MD; Kocabeyoglu, Sibel MD; Karakaya, Jale MD; Irkeç, Murat MD [Author Information](#) 

Journal of Glaucoma: September 2016 - Volume 25 - Issue 9 - p 770-776
doi: 10.1097/JG5.0000000000000495

11

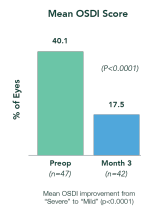
OSD IMPROVEMENT IN IMPLANTED EYES¹

- Prospective, multicenter trial evaluating four ocular surface metrics 3 months post-stent implantation.

- n=47 eyes

- Other ocular health metrics improved as well:

- 49% longer time to tear break-up (FTBUT) ($p < 0.0$)
- Significantly reduced corneal/conjunctival staining (Oxford Schema) ($p < 0.0001$)
- Trend toward less hyperemia (Efron Score)



Schweitzer JA, Hauser WH, Ibach M, Baartman R, Gollamudi SR, Crothers AW, Linn JE, Berdahl JP. Prospective Interventional Cohort Study of Ocular Surface Disease Changes in Eyes After Trabecular Micro-Bypass Stents Implantation (Stent or Stent Inject) with Phacoemulsification. *Ophthalmol Ther*. 2020 Aug 13.

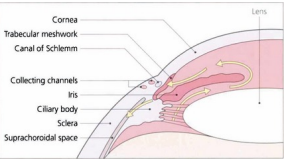
12

MIGS

Procedures that have an ab-interno approach, are minimally traumatic, with at least modest efficacy, extremely high safety and rapid recovery .

13

Schlemm's Canal	Type	Suprachoroidal	Type	Cilioablative	Type
Stents		Stents		External	
	iStent		*Cypass		Micropulse
	iStent Inject		*iStent Supra	Internal	
	Hydrus	Subconjunctival	Type		ECP
Dilation		Stents			
	OMNI		Xen		
	ABIC		*InnFocus		
Cutting			Micro		
	Kahook Dual Blade				
	OMNI/GATT				
Ablation					
	Trabectome				



15

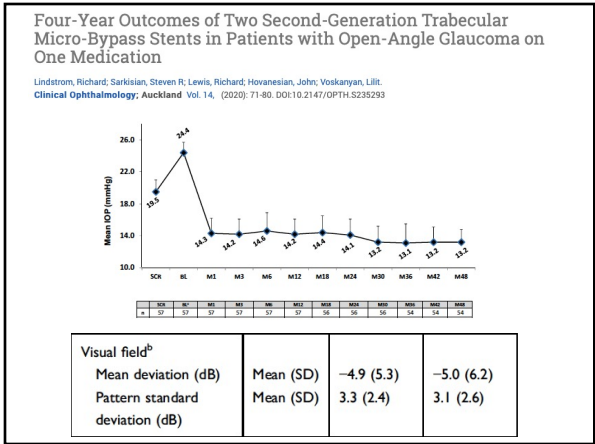
How do you differentiate between the various MIGS procedures when referring your patients?

16

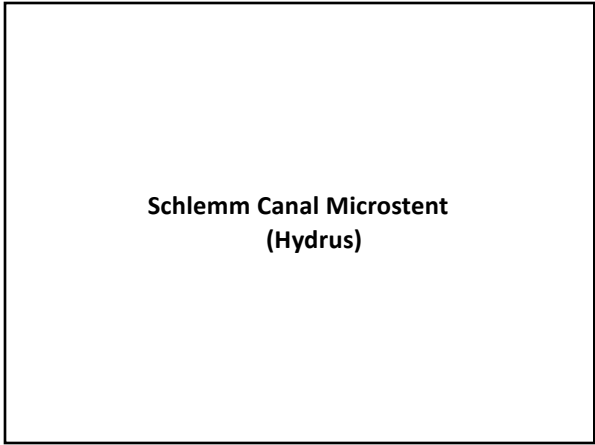
Trabecular Microbypass Stent (iStent Inject W)

↓

18



19



20

HORIZON Trial – 4 Year Update		
Baseline IOP (mm Hg) after washout	25.5 (+/- 3.0)	25.4 (+/- 2.9)
	65%	41%
48 months mean IOP (mm Hg) unmedicated	16.7 (+/- 3.1)	17.2 (+/- 3.2)
	16.9 (+/- 3.3)	17.3 (+/- 3.4)
1 preoperative med	52.6%	54%
2 to 4 preoperative med	47.4%	46%
5 Year Update – 66% patient's remain medication-free and 61% reduction in risk to need further surgery		

21

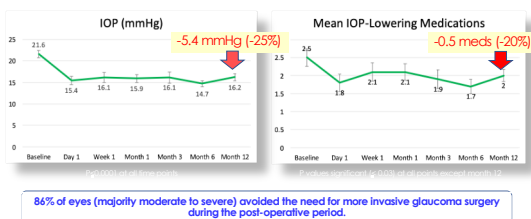
AQUEOUS ANGIOGRAPHY VIDEO

22

Excisional Goniotomy (Kahook Dual Blade)

24

12-Month Outcomes of Stand-Alone Excisional Goniotomy in Mild to Severe Open-Angle Glaucoma

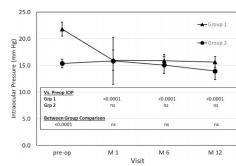


25

Ab-interno Trabeculotomy +Viscocanalostomy (OMNI)

27

Canaloplasty and Trabeculotomy with the OMNI System in Pseudophakic Patients with Open-Angle Glaucoma: The ROMEO Study



28



Subconjunctival Stent
(Xen)

	Baseline	12 month
Medicated IOP	25.1 (3.7)	15.9 (5.2)
Glaucoma Meds	3.5 (1.0)	1.7 (1.5)
Hypotony	16 (24.6%)	
Bleb Needling	21 (32.3%)	

30

Post-operative Considerations with MIGS

1. Stopping GLC Meds
2. IOP Spikes
3. Hyphema
4. Hypotony
5. Establish New Baselines

32

In Conclusion...

- Glaucoma is both a medical and surgical disease
 - Key to success is collaboration
- Trends in treatment aim to balance effectiveness and safety
- MIGS procedures allow for interventional glaucoma

33

Thank You!

justin.schweitzer@vancethompsonvision.com
 whitley@cvphealth.com
 Scott.Hauswirth@CUAnschutz.edu

34
