GLAUCOMA TODAY **NEWS**

OPHTHALMOLOGISTS PARTNER WITH PRIMARY CARE PHYSICIANS

Clinical researchers at Wills Eye Hospital have suggested that the best way to find, diagnose, and treat patients with undiagnosed glaucoma is to reach them in the primary care setting by partnering with local physicians, according to a news release. Technicians went to health centers and primary care offices throughout Philadelphia and reached out to patients who were there for a variety of other health reasons. The vision exams and imaging were then evaluated at Wills Eye Hospital, and patients diagnosed with eye problems were connected with a local ophthalmologist. The data showed that 24% of nearly 1,000 patients screened had undetected glaucoma-related diagnoses.

Read more about this study at bit.ly/GTnewswills

COMPASS TRIAL FINDS BENEFIT OF CYPASS IMPLANT

A post-hoc analysis of the COMPASS trial found that there was a lower incidence of events associated with glaucoma disease progression, including adverse events of visual field deterioration, optic disc hemorrhage, IOP spikes, and the need for additional glaucoma surgery, in patients implanted with the CyPass Micro-Stent (Alcon) at the time of cataract surgery than in patients who had cataract surgery alone. In data presented at the 2018 American Glaucoma Society (AGS) annual meeting, the analysis also showed that a lower proportion of patients who had the CyPass Micro-Stent implanted at the time of cataract surgery required IOP-lowering medications at 24 months after implantation (15.2%) than those who had cataract surgery alone (40.9%).

Get more details at bit.ly/GTnewscypass

COLLABORATION IMPROVES GLAUCOMA MANAGEMENT

Ophthalmologists and optometrists at the Glaucoma Management Clinic at the University of New South Wales (UNSW) Centre for Eye Health found that collaboration is effective for the management of patients with glaucoma, according to a university news release. A study of the first 18 months of the clinic's operations, published in *Clinical and Experimental Ophthalmology*,[1] noted that patients waited an average of 43 days for an appointment; for public hospital ophthalmology appointments, waiting periods often exceed 12 months, the study authors wrote. At UNSW, most patients seen (51%) were diagnosed with glaucoma, and 41% had suspected glaucoma requiring ongoing monitoring. Another 2% had a

different optical neuropathy, and 6% were found to have no eye disease. "Results from the first 18 months of operation have justified the trust and vision needed to build this exceptional model with the two professions working side by side," concluded lead author and UNSW research fellow Barbara Zangerl, PhD.

Read more about the findings at bit.ly/GT0418collaboration

1. Huang J, Hennessy MP, Kalloniatis M, Zangerl B. Implementing collaborative care for glaucoma patients and suspects in Australia [published online March 2, 2018]. *Clin Exp Ophthalmol.* doi:10.1111/ceo.13187.

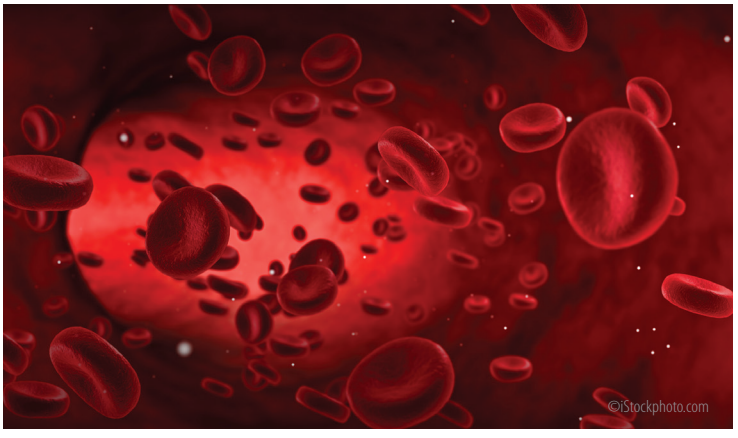
NEW WORLD MEDICAL NAMES AWARD WINNERS

New World Medical's Humanitarian Project Award, which provides $50,000 in funding to a nonprofit or academic institution providing ophthalmic care and training in developing health systems, was given to The University of Colorado Ophthalmic Global Outreach Program. This program seeks to combat worldwide blindness from glaucoma, with efforts focused in the Caribbean and South America. The award will benefit the Elias Santana Hospital in Santo Domingo, Dominican Republic. The hospital provides care to the impoverished throughout the region, half of whom are being seen for glaucoma-related issues. The funding will be used to educate faculty, fellows, and residents on the most advanced and up-to-date ab interno glaucoma surgical techniques.

The company's Fellowship Award, which offers $10,000 in travel support for a minimum of one ophthalmic medical mission in a developing nation within a single academic year, was awarded to Avni Shah, MD. Dr. Shah has made two trips to the Elias Santana Hospital and is planning a visit to the Aravind Eye Hospital in India, where she will train in manual small-incision cataract surgery and study one of the most successful models of sustainable eye care delivery in the developing world. As part of her fellowship program, Dr. Shah will travel to several international sites, including Tanzania and Ghana. "In Tanzania, I plan to provide the first glaucoma-specific surgical training to the only ophthalmologist at the University of Dodoma," she said.

Learn more about the awards and recipients at bit.ly/GTnewsNWM

ORAL ANTIOXIDANTS BOOST OCULAR BLOOD FLOW, STUDY SHOWS



One month of oral administration of antioxidants increased biomarkers of ocular blood flow within retinal and retrobulbar vascular beds in patients with open-angle glaucoma (OAG), according to a study published in *Acta Ophthalmologica*.[1]

A total of 45 patients with confirmed OAG were enrolled in the randomized, double-masked, placebo-controlled cross-over study. Baseline and postadministration IOP, ocular perfusion pressure, retrobulbar blood flow, and retinal capillary blood flow were noninvasively measured before and 1 month after administration of antioxidant nutraceuticals or placebo.

Antioxidant supplementation produced a statistically significant increase in peak systolic and/or end diastolic blood flow velocities in all retrobulbar blood vessels compared with placebo. Vascular resistance was also reduced in central retinal and nasal short posterior ciliary arteries following antioxidant administration. Additionally, antioxidant supplementation increased superior and inferior temporal retinal capillary mean blood flow and the ratio of active to inactive retina capillaries compared with placebo.

1. Harris A, Gross J, Moore N, et al. The effects of antioxidants on ocular blood flow in patients with glaucoma. *Acta Ophthalmologica.* 2018;96(2):e237–e241.

HORIZON: SCHLEMM CANAL STENTING AT THE TIME OF CATARACT SURGERY SAFE, EFFECTIVE

Concurrent Schlemm canal stenting in patients undergoing cataract surgery was safe and effective for lowering IOP and medication use compared with cataract surgery alone at 24 months, according to data from the HORIZON study presented at the AGS annual meeting.[1]

HORIZON is a prospective, multicenter, randomized, controlled clinical trial comparing concurrent phacoemulsification with a Schlemm canal microstent (Hydrus Microstent; Ivantis) with phacoemulsification alone. The study included 556 patients with mild to moderate primary OAG treated with one to four topical hypotensive medications, age-related cataract, and washed out diurnal IOP of 22 to 34 mm Hg. Patients were randomly assigned to receive the microstent (n = 369) or no stent (n = 187). There were no significant differences between groups in age, sex, ethnicity, baseline visual acuity, or glaucoma severity.

At 24 months, the mean reduction in diurnal IOP was -7.5 ±4.1 mm Hg in the microstent group and -5.2 ±3.9 mm Hg in the no-stent group (difference = -2.3 mm Hg, 95% CI -3.0 to -1.6, $P < .001$). Mean medication count was reduced by 82.4% in the microstent group and 58.8% in the no-stent group (difference = 23.6%, $P < .001$).

The microstent group was associated with transient postoperative hyphema and focal adhesions near the device. Higher rates of IOP elevated more than 10 mm Hg over baseline and rescue filtration surgery were observed in the no-stent group. There were no significant differences in other safety outcomes.

1. Samuelson T. Results from the HORIZON trial: a multicenter, randomized study of a Schlemm's canal microstent for reduction of IOP in primary open angle glaucoma. Paper presented at: the American Glaucoma Society Meeting; March 1-4, 2018; New York.

IMPRIMIS LAUNCHES PROGRAM FOR CUSTOM COMPOUNDED OPHTHALMIC FORMULATIONS

Imprimis Pharmaceuticals launched a new program to provide custom compounded ophthalmic medications that are increasingly difficult to find and typically needed on an urgent basis, according to a company news release. The goal of this program is to ship compounded medications within 24 to 48 hours to all 50 states.

Learn more at bit.ly/CRSTcompounded

FROM OUR SISTER SITES

MILLENNIAL MINUTE
Facebook to Businesses: Kiss Organic Reach Goodbye!

ME MILLENNIALEYE

Mark Zuckerberg has announced that Facebook will be cutting back on the amount of business content that users see in their news feeds. Is it time to ditch Facebook altogether? Not so fast. In fact, Facebook's changes can actually help you leverage the platform even more if you're willing to adjust your approach. To learn four tactics you can use to rewrite your Facebook playbook and outsmart your competitors on the world's largest and most powerful media platform, go to bit.ly/GT418FB.

RETINA REPORT
Dietary Supplement Improves Vision in Patients With AMD

RT Retina Today

The Central Retinal Enrichment Supplementation Trial found that people with early stages of age-related macular degeneration showed a significant improvement across 24 out of 32 measures of vision when taking a dietary supplement of carotenoids.

Read more at bit.ly/GT0418supplement

CLICKWORTHY

STRESS IS CONTAGIOUS

Scientists have discovered that stress transmitted from others can change the brain in the same way that personal stress does.

bit.ly/Clickworthy418a

NOT YOUR MAMA'S DRUGSTORE

Cigna will buy Express Scripts in a $52 billion health care deal.

bit.ly/Clickworthy418b

PSYCHIATRIST SHORTAGE

A cap on federal funding for medical residency programs is contributing to a growing shortage of US psychiatrists.

bit.ly/Clickworthy0418c

UBER FOR HEALTH CARE

The new Uber Health dashboard enables medical and administrative staff members to order cars for their patients.

bit.ly/Clickworthy0418d

DIABETES TYPE 5?

Researchers suggest that patients with diabetes can actually be separated into five distinct disease clusters.

bit.ly/Clickworthy0418e

—Compiled by Stephen Daily, Executive Editor, News; and Carrie Adkins-Ali, Managing Editor ■

LETTER TO THE EDITOR

I recently read the *GT* article "Lifestyle Recommendations" by Cynthia Mattox, MD, with interest.[1] In this piece, Dr. Mattox offers many useful recommendations that physicians can convey to their glaucoma patients in addition to reinforcing that they use their prescribed medications correctly.

During experiments to estimate the pressure applied during the digital ocular massage maneuver used to rescue failing trabeculectomy blebs,[2] my colleagues and I were frequently surprised by the amount of pressure some patients were comfortable having applied to their closed eyelids. Inquiring further, we identified several patients who reported that they not only tolerated applied external force well but actually preferred falling asleep lying prone with one eye firmly against an arm or pillow.

Wondering if this external force might contribute to glaucomatous optic nerve damage, we asked patients with asymmetric nerve cupping—and no known glaucoma or asymmetry of routinely measured IOP—their preferred sleep position. We found a positive correlation between the side of greater cupping and the self-reported side of the face that was more commonly dependent during sleep.[3] This coincides with other observations showing greater visual field loss being correlated with the eye that is placed preferentially in a dependent position during sleep.[4]

We and others have suggested that this potential mechanism of damage, when present, might easily be blocked using a Fox eye shield.[5] Although the shield is an intuitively attractive and simple tool, until recently there were no data that demonstrated a protective benefit with this approach. However, in a recent investigation using the Triggerfish contact lens system (Sensimed), Flatau et al[6] reported significant reductions in limbal strain in certain sleep positions when a protective shield was worn.

Dr. Mattox is certainly correct that inquiring about sleep position may add valuable information to a glaucoma workup. Further, when asymmetric and/or progressive damage is found in an eye in the dependent position of a self-described prone sleeper, wearing a protective shield over that eye during sleep is a reasonable and inexpensive recommendation for the patient wondering, "Is there anything I can do?"

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1. Mattox C. Lifestyle recommendations. *Glaucoma Today*. November/December 2017: 35-36.
2. Korenfeld MS, Dueker DK. An apparatus for measuring digital pressure on the eye. *Invest Ophthalmol Vis Sci*. 1991;32(suppl):743.
3. Korenfeld MS, Dueker DK. Occult intraocular pressure elevation and optic cup asymmetry: sleep posture may be a risk factor. *Invest Ophthalmol Vis Sci*. 1993;34(suppl):994.
4. Kim KN, Jeoung JW, Park KH, et al. Relationship between preferred sleeping position and asymmetric visual field loss in open-angle glaucoma patients. *Am J Ophthalmol*. 2014;157(3):739-745.
5. Korenfeld MS, Dueker DK. Review of external ocular compression: clinical applications of the ocular pressure estimator. *Clin Ophthalmology*. 2016;10:1-14.
6. Flatau A, Solano F, Jefferys JL, Damion C, Quigley HA. A protective eye shield reduces limbal strain and its variability during simulated sleep in adults with glaucoma. *J Glaucoma*. 2018;27:77-86.