



SEARCHLIGHT ON GLAUCOMA

The Glaucoma Service Foundation to Prevent Blindness

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A Tribute to George L. Spaeth, MD September 24, 2016

The Glaucoma Service Foundation hosted a spectacular evening at Evviva on September 24, 2016 to honor Dr.



Dr. George L. Spaeth
Photo: Bill Romano

George L. Spaeth. Dr. Spaeth is an inventor, entrepreneur, and great mentor in the field of glaucoma including the renowned International Society of Spaeth Fellows (ISSF). Dr. Spaeth was recently ranked the most influential ophthalmologist in the world from a survey by the journal "The Ophthalmologist."

Dr. Spaeth discovered the disease homocystinuria as a resident at Wills Eye Hospital, and published much of the early work on the condition, including the use of pyridoxine as a

successful treatment. He developed methods of describing the anterior chamber angle, the optic nerve head (The Disc Damage Likelihood Score), and detecting visual loss (SPARCS), that are clinically more useful than other systems.

With over 420 published articles, over 100 book chapters, 200 editorials and 18 books, his surgical texts are used in many countries around the world. A founding member and first President of the American Glaucoma Society, he was also a founder of the Glaucoma Service Foundation to Prevent Blindness. Dr. Spaeth was also a founder and Director of the Glaucoma Service at Wills Eye Hospital and served as Chair of the Ethics Committee of the American Academy of Ophthalmology.

Dr. Spaeth has presented over 300



Tribute guests pictured left to right: Dr. Kathryn Freidl, Michael Freidl, Dr. George L. Spaeth, Neera Shetty, Dr. Rajesh Shetty Photo: Bill Romano

named lectureships, which he uses as an opportunity to present his views on the importance of individualizing patient-driven care and helping patients celebrate their lives. A busy practitioner, teacher and investigator, he has been recognized by awards from Greece, Poland, France and the UK, including the Weisenfeld Medal from ARVO, and the Albert Schweitzer Leadership Award (something he has in common with Ronald Regan,

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A Message From Our President



Dear Friend,
It is my honor to serve as President of the Glaucoma Service Foundation. One of our many initiatives is the sponsorship of educational programs to prevent the loss of sight due to unrecognized or untreated glaucoma in older adults and in diverse ethnic populations in the Greater Philadelphia region.

We are grateful for the funding support of local foundations in helping us offer workshops and programs that reach out to underserved populations, educate them about glaucoma, and get them into a system of comprehensive care. To date, we have

reached 175 people at sites across Greater Philadelphia. These include the Mann Older Adult Center in the heart of Philadelphia's Latino population where all presentations have been in Spanish. Similarly, the Lok House in the center of our Chinese population has offered programs to older Chinese adults and immigrants in Cantonese and Mandarin. At the Juniata Park Older Adult Center, African Americans, Chinese, and Latinos attended programs where translators presented in their native language.

As a Foundation, we are pleased to play a vital role in reaching out to local residents in an effort to lessen the incidence of undetected glaucoma and encourage those identified with

glaucoma to develop self-help measures such as making yearly eye examination appointments and adhering to prescribed treatment. As you will read in several of the articles in this issue of the Searchlight, taking charge of glaucoma management is essential if patients are to enjoy a healthy lifestyle.

Your contribution in the enclosed envelope will help us continue our programs designed to reduce the negative effects of glaucoma. We hope that we can count on your support.

Sincerely,

Maxine Colm, EdD, President
Glaucoma Service Foundation

A Tribute to George L. Spaeth, MD - September 24, 2016

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George Strimel, Trustee presenting personalized gift to Dr. George L. Spaeth

Photo: Bill Romano

George H. W. Bush, Madeline Albright, Hillary Clinton, and Mikhail Gorbachev, to name but a few).

Outside of his work, Dr. Spaeth is an emeritus member of the Board of

Directors of the Pennsylvania Ballet and the Philadelphia Bach Festival, and enjoys being with his family and loved ones, being creative (playing the piano, gardening, writing, composing music and poetry, flower arranging, and cooking) and celebrating the gift of life.

We were so pleased that over 107 people attended this wonderful event that included Dr. Julia Haller (Ophthalmologist-in-Chief at Wills Eye Hospital), and Dr. Jeffrey Henderer (Chairman of Ophthalmology at Temple University School of Medicine), representatives

from Allergan and Mobius Therapeutics, past and current Spaeth fellows, staff, doctors from the Glaucoma Service, and Board Trustees from the Glaucoma Service Foundation. The proceeds from this event support the Glaucoma Service Foundation including the International Spaeth Fellowship Program, one of Dr. Spaeth's many legacies. It is not too late to contribute to the Foundation to ensure Dr. Spaeth's legacy.

Please contact Rita Stern, Program Director at (484) 678 4535 for any questions. ■



Meet the 2016-2017 Glaucoma Service Fellows

The Fellows' training on the Glaucoma Service at Wills Eye Hospital commences July 2016 and ends July 2017. The 2016 Fellow, Dr. Alice Williams, will be sponsored by the Foundation thanks to the support from readers like you. Fellows take part in clinical

and surgical training for the care of glaucoma patients under the mentorship of the Glaucoma Service physicians. In addition, they participate in clinical research studies, with their work often appearing in medical journals and presented at national ophthalmic

conferences such as American Academy of Ophthalmology (AAO) and the Association for Research in Vision and Ophthalmology (ARVO). For more than three decades the Glaucoma Service Foundation has been proud to support such training.



Alice Williams, MD

Dr. Alice Williams was raised in Indian Harbour Beach, Florida and attended college at the University of Florida where she majored in Biology with a minor in Spanish. She moved to Philadelphia to attend medical school at Temple University. While here she helped to found an eye clinic for the underserved at a Philadelphia Health District and worked on several research projects in the field of glaucoma. She completed her ophthalmology residency at the Wills Eye Hospital. Her interests include tennis, hiking, and spending time with her family.



Edward Yung, MD

Dr. Edward Yung is a returning member of the Glaucoma Service Foundation. He was a native of Los Angeles, California until leaving to obtain his undergraduate degree in Molecular and Cell Biology at the University of California, Berkeley. He then became an East Coast transplant and moved to Philadelphia to receive his MD degree at Temple University. During his education at Temple University, he spent time at the Glaucoma Service Foundation as a research student. He now returns to the Wills Eye Hospital after undergoing his residency in ophthalmology at SUNY Stony Brook from 2013 to 2016. This time, he is undergoing his training as a Clinical Fellow in the Glaucoma Service at Wills. When he is not at work, his hobbies include wine tasting, nature photography, golfing, and hiking.



Ben Abramowitz, MD

Dr. Ben Abramowitz grew up in West Virginia and then graduated from a seven year combined undergraduate and medical school program at The Ohio State University, where he met his wife. He then completed his ophthalmology training at The George Washington University, where he served as Chief Resident and earned the Mervin Zimmerman Award for Excellence in ophthalmology training. He now has the honor to serve as a Glaucoma Fellow at Wills Eye Hospital where he is continuing to pursue his research interests in new laser and surgical treatments for glaucoma.



“I’m Hoping for a Miracle”

By: George L. Spaeth, MD

He was sitting in the examining chair. I tried to estimate his age and health status. It didn’t fit. He was small, like a small, young teenager, but his face looked like an old man. His right eye was looking to the right. He wore gloves on his hands. I wondered about his mental competence, but then it became apparent that was fine. I introduced myself and asked, “Why did you come to see me?” He answered, “I’m hoping for a miracle.”

J-- had been referred from the Mayo Clinic to one of the corneal specialists at Wills Eye Hospital in hopes that something could be done to improve the vision in the left eye, the only eye that had any sight. She had found the pressure in the eye to be in a range that’s likely to cause rapid loss of vision, and she sent him to me. Between the time she had seen him and my evaluation, his pressure in the eye had gone up even higher and was now 64 mm Hg, a level which is high enough to prevent the blood from getting into the eye, so that there was a great risk for rapidly losing the small amount of sight remaining. His mother told me that he had had leukemia at age 8 and had been treated with chemo and radiation and then bone marrow transplantation, following which he got a strange type of dia-

betes which had affected the right eye, leading to a retinal detachment not able to be repaired. He had a cataract removed from his seeing left eye, but then the cornea broke down. They were here now “hoping for a miracle.” That he was here at all was already a miracle. I was tremendously impressed by Mrs. ----, her warmth, her gentleness, her quiet perseverance, her obvious love for her son, who now was in his 30’s.

The diagnosis was fairly straightforward; the eye was not getting enough blood to survive, and the body in its wisdom directed at survival, told the eye to make new blood vessels, which it was doing ferociously. But those new blood vessels were causing a catastrophic problem for the eye, specifically, growing over the seeing part of the eye, the retina, and growing over the drain that controls the pressure in the eye, which had now closed up completely with scar tissue – worse: scar tissue full of blood vessels.

I discussed the situation with J-- and his mom, saying that the only hope for the eye was surgery as promptly as he could be gotten into the operating room. To get the pressure down immediately, I put a tiny needle in the eye and lowered the pressure to 50, not enough, and then to 20, which was just about

right. But it wouldn’t stay there. I called the retina doctors, because the next step would be to treat the retina with a laser to close down a lot of the extra blood vessels. Such treatment would decrease, but not eliminate the chance that his eye would bleed explosively at the time of the needed surgery.

Even though they didn’t have the right type of insurance (they were from North Dakota), many discussions and phone calls solved that issue and he had the laser treatment. Throughout this frightening experience his mom had been quiet, gracious, confident, hopeful. I thought, with anger, about the ready explanations given by many people who – at least from my point of view – refuse to see the real world as it really is, who refused to see that every day bad things happen to good people. The only answer to that is that existence is chaotic. Existence has its rules, but how those rules work together in a universe of unimaginable complexity is impossible to predict accurately. I felt tremendous admiration – love – for his mother.

I told J--, “Your mom has already created a miracle. We will do our best to keep it going.”

And we did. ■



9th Annual CARES Conference - April 9, 2016

Following our mission of community outreach and medical education, the Glaucoma Service Foundation (GSF), has hosted a series of public patient directive conferences which aim to explain exactly what glaucoma is, encourage screening for this devastating disease, and if identified, stress the importance of medical follow through and treat-



Dr. Jonathan Myers. CARES presenter
Photo: Roger Barone

ment. April 9, 2016 we held our 9th Annual CARES Conference. CARES stands for Committed to Awareness through Research, Education, and Support. This is the



Ben Franklin (Robert DeVitis) and our CARES volunteers
Photo: Roger Barone



George Strimel (trustee) Maxine Colm EdD, President, Dr Leonard Rosenfeld, Vice President
Photo: Roger Barone

third year our CARES venue was in the Dorrance Hamilton Building of Thomas Jefferson University, located at 1001 Locust Street, one block from Wills Eye Hospital. Maxine Colm, EdD, President of our Foundation gave the opening remarks. Guest speakers included Stacey Doan, BS, COTA (VisionCorps) and Joe Saunders and Sue Boyle (Center for the Blind and Visually Impaired). “Ben Franklin” made an appearance and took the opportunity to have his vision checked. A select group of medical students gave a special power point presentation to the attendees from the Chinese Senior Center in Mandarin. After the one hour presentation, there was a Q & A session and participants were encouraged to get a free glaucoma screening. This year we had approximately 400 attendees due to a more aggressive marketing and communication strategy in place.

Will Harley, our sponsor, engaged the PR firm, Parlee Stumpf, for a third year to handle the marketing and communication. We also attended outreach meetings throughout the city to capture and encourage more attendees. This effort continues to be fully funded by a generous grant from the Harley Research



Will Harley (CARES lead sponsor) with raffle winner
Photo: Roger Barone

Foundation for Glaucoma Education and Support. We anticipate continuing support from the Harley Foundation for the 2017 CARES Conference. The next CARES Conference is targeted for April 2017. We anticipate over 400 attendees. ■



Dr. George L. Spaeth, Sheryl Wizov, Ben Franklin (Robert DeVitis)
Photo: Roger Barone



There is a “Best” Care, but it is not “Standard” Care

By: George L. Spaeth

I first met Mr. --- when he was about 60 years old. Several weeks earlier he had gone to a medical eye doctor in a neighboring state because he suddenly noted he wasn't seeing well with his left eye. Mr. --- was a woodworker; he had noted he had been having more trouble carving things, but believed this was just due to improper glasses, a thought reinforced by the doctor. That eye doctor determined how well he could see, checked the pressure in his eyes, and measured him for glasses. After each visit he was told, “You're fine; you see 20/20 with your right eye and almost that good in your left.”

One day a chip of wood flew into his right eye; when he closed it suddenly he realized he could hardly see with his left eye. He went to his optometrist who told him, “I think you have glaucoma,” and who sent him to a medical doctor, who referred him to me. That physician noted that the pressure in his eyes was well within normal limits, being 15 mm Hg in the right eye and 18 in the left, the normal range being 10-21 mm Hg. But, when she looked inside his eyes at the nerve that connect the eyes to the brain, she thought, “This looks like glaucoma!” The right eye was badly damaged, and in the left eye the nerve was

almost dead. Because straight ahead vision usually remains good until the end stages of glaucoma, and because our better eye makes up for what we don't see with the worse eye, seeing in areas that the worse eye can't see, it is common for people with glaucoma to have advanced visual loss in one eye before it gets noted. That's what happened to the woodworker!

Mr. ---- had been doing what he should, “going by the book,” seeing his eye doctor every year, and the eye doctor had been “going by the book,” measuring his eye pressure and vision all that time. But all that time the woodworker was getting worse. He wasn't like the usual “standard” person.

When I first examined Mr. ---, I told him I agreed with his referring doctor and advised him to continue the eye drops the doctor started. I added some new drops, but told him I thought that probably the drops wouldn't be enough to prevent him from losing more sight. And indeed about six months later his referring doctor sent him back to me. His eye pressure was too high and he was getting worse. I did glaucoma surgery in both eyes, combining it with a cataract extraction in his right eye. Both procedures

appeared to be successful, the pressure falling to about 12 mm Hg in both eyes. That seemed great, because the optic nerves become damaged when the eye pressure is higher than they can stand. Now the pressure was actually lower than average. Furthermore, about the same time a major medical study reported that having pressures in the eye of 12 were always fine, and if the pressure was at that level, people weren't going to go blind from glaucoma.

Mr. --- continued to be followed by his alert doctor who had first diagnosed his glaucoma. She was happy that his pressures were always between about 11 and 13. But, Mr. --- thought he was getting worse. His tests didn't show that, because when disease is far-advanced, sometimes it is hard to see changes, even with sophisticated machines. But his thoughtful doctor sent him back to me. I told her that I thought her patient was getting worse. I advised a different kind of surgery from that which I had done, a type called an endocyclophotocoagulation.

Two years later I saw the woodworker again. He had become blind in his more damaged left eye and was having trouble seeing with

(continued on next page)



his better – but now terrible – right eye. The pressures in his eyes seemed to be fine, that is 12 mm Hg, just where they were “supposed to be” according to standard of care. But, he had not had the surgery performed that I recommended, and I asked why. He said he didn’t remember that’s what I advised. I showed him the letter that was given to him as well as being sent to his doctor, but nothing had been done. He and his wife were understandably distraught. They thought they had done everything they could. Their good doctor had followed all the advice of the consensus of glaucoma specialists and had understandably not gone along with my recommendation for a dangerous procedure that most people thought was probably not necessary.

Mr. --- and his wife wondered - what else could they have done? The answer is scary for many people. They could have gone against what almost everything in the medical world advises, specifically to follow the standard of care. But the standard of care only works on the standard patient. And almost nobody is standard.

After some further discussion they agreed to have an endocyclophotocoagulation on the right eye that still had some sight. This did lower the pressure well, and actually he got some sight back. There is a reasonable chance now that he will keep that. He may need surgery in the future, but he is aware that if his pressure is not kept down he is going to go blind.

All of us, doctors and patients alike, need to remember that we are all unique. Standard guidelines are important and need to be known and, often, followed. But doctors and patients do best when care is tailored so it is right for the particular individual. ■

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We are excited that we have set up a new fundraising initiative called AmazonSmile. Amazon may already be an online source that you use for purchases. By entering the following link (<http://smile.amazon.com/ch/23-2106693>), into your browser, 0.5% of your eligible purchases will support the Glaucoma Service Foundation. You need only set this up one time and your AmazonSmile account will remain linked to the Glaucoma Service Foundation.

Please consider supporting the Glaucoma Service Foundation to Prevent Blindness by using this link for your future Amazon purchases.



Beyond Drops and Surgery: Conquering Glaucoma Through Lifestyle Modifications

By: Daniel Lee, MD

“Besides my eye drops, is there anything more I can do or avoid to help my glaucoma?”

We are living in an increasingly health conscious society. In recent years, more people are wondering how their lifestyle choices are affecting their glaucoma. The traditional view dictates that beyond drops and surgery, lifestyle modifications have no beneficial effect for those with glaucoma. However, recent findings are beginning to suggest otherwise. Below are some highlights on lifestyle changes that may potentially alter the course of your glaucoma when done in addition to your glaucoma drops.

Eat Your Vegetables

A recent study followed the dietary habits of nearly 100,000 men and women for 25 years. Those who consumed the most leafy green vegetables had a 20-30% reduced risk of developing glaucoma. Leafy greens contain a high amount of nitrates, which our body converts to nitric oxide. Nitric oxide is an important chemical that promotes blood flow. The authors of the research theorize that nitric oxide may optimize blood flow to the eye, making the optic nerve more resilient to damage. Vegetables with the highest concentrations of nitrates include celery, lettuce, red beets, spinach, arugula, and kale.

Quit Smoking

Heavy smokers (>40 pack years) are nearly four times more likely to develop glaucoma compared to moderate to light smokers (<20 pack years). Smokers also tend to get a more aggressive form of glaucoma that affects central vision in earlier stages of the disease course. On the other hand, some studies failed to show a correlation between smoking and glaucoma. Although the evidence is mixed, it is abundantly clear that cigarette smoking has an overall negative impact on health with increased risk for many forms of cancer, heart disease and other eye conditions such as macular degeneration and cataracts.

Exercise Regularly

Regular exercise can have multiple health benefits for your eye. Moderate aerobic exercise can significantly reduce intraocular pressure in both healthy and glaucomatous eyes. In addition, exercise is known to increase blood flow to the retina and optic nerve, potentially making ocular tissues more resilient to damage. Beyond eye health, exercise can improve blood pressure and heart function. Please discuss with your primary doctor prior to engaging in a new exercise regimen.

It must emphasize that there is no substitute to your prescribed glaucoma treatment. It is of utmost importance that these lifestyle changes

occur in addition to (not instead of) your current glaucoma treatment. Incorporating a healthy-diet, exercise and a smoke-free environment to your current glaucoma treatment can prove to be a winning combination for your vision and overall health.

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Patient Empowerment and the Future of Self-Monitoring

By: Marlene R. Moster MD, Edward Yung MD

Non-adherence to therapy has always been a major problem in the management of chronic diseases, ultimately leading to progression and long-term severe disability. In glaucoma, the inability to track one's own disease only makes it more difficult to understand the importance of consistent medication use. With rare exceptions, one cannot tell whether their intraocular pressures are too high, making it truly a silent disease until it is already too late. Exciting advances in the monitoring of glaucoma are on the horizon, changing the way that we approach this chronic disease.

Taking the Initiative on this Chronic Disease

Without clear warning signs that one's glaucoma is not controlled, it is not surprising that there is difficulty with medication adherence. This makes the disease all the more dangerous. Patients fear being scolded by their doctors, and tend to be more consistent with medication use around the time of their appointments. This only causes more confusion, as doctors can't tell whether worsening disease is truly due to their treatment regimen or poor adherence during the months between scheduled office appointments. This can result in the decision to perform surgery that would otherwise be unnecessary.

It is up to you, the patient, to take control of your treatment. Try to figure out what it is that prevents you from being 100% adherent to your drops. Is it difficult to remember to use them consistently? If so, try setting an alarm, place your drops in a place where they are easily visible, or use smart phone app to remind you to administer your drops. One such example is the Glaucoma from Wills Eye app, accessible for Apple products at <https://itunes.apple.com/us/app/glaucoma-from-wills-eye/id1099960071?mt=8>.

Do not run out of eye drops! Running out of medications allows your intraocular pressures to rise, so time your refills appropriately. A good rule is to obtain refills when there is approximately 1/4 of the bottle remaining, as pharmacies may not always have the medications readily available.

In order to better understand the instructions for your medications, do not hesitate to ask your doctor for confirmation. It is far more preferable to spend an extra minute of your visit obtaining a printout of your instructions rather than using your medications incorrectly for a prolonged period of time.

Following the Disease

Glaucoma resembles many chronic

medical conditions, such as diabetes mellitus and hypertension. Unlike those conditions, there is no way for patients with glaucoma to keep track of their disease at home. Imagine having diabetes, and the only way to check one's blood sugar was to show up at a primary care physician's office every 3 months for a blood test. That is the current status of glaucoma management. It is, thus, no surprise that it is difficult to remain adherent to a medication regimen when you cannot be reassured on a frequent basis that the drugs are doing what they're supposed to do.

Fortunately, changes are on their way. Portable devices have been developed and are pending approval for use in the United States, giving patients the option of monitoring their own pressures at home. This will allow patients to frequently check the status of their treatment and allow for earlier detection of treatment failure. Just like the ability to check one's blood sugars or blood pressures at home, such technology gives patients greater control and less anxiety over the status of their disease. Stay tuned for these changes, as they will not only make medication use more satisfying, but they will help to prevent blindness at the same time. ■



“CHAT HIGHLIGHTS” OF THE GLAUCOMA SERVICE WEBSITE

What Is Low Vision?

January 7, 2015

Guest Speaker – Dr. Michael Pro
Lorraine Miller, Editor, Chat Topic Researcher

Moderator: Happy New Year and welcome to our first moderated chat of 2015, “What Is Low Vision?” We are very pleased to have with us Dr. Michael Pro, a glaucoma specialist at Wills. Dr Pro, let’s start with the topic question: What is low vision?

Dr. Pro: The definition of legal blindness, according to the Social Security Administration, is 20/200 vision or worse in the better seeing eye or a visual field of less than 20 degrees. Low vision is not an exact medical term with a clear definition but it refers to a condition where the visual function is impaired due to a medical condition. The most common causes in the U.S. are diabetic retinopathy, macular degeneration, and glaucoma.

P: What is a visual field of less than 20 degrees? I have copies of my visual fields. Where do I find this information?

Dr. Pro: The visual field requirement was defined on the older Goldmann device. But modern tests can be substituted. There are hash marks on the test printout that indicate the degrees from the central point. You can review this with your glaucoma specialist.

P: What are the symptoms of low vision?

Dr. Pro: Symptoms can vary widely. In general, low vision refers to impairment in usual visual function such that common activities of daily living are affected. Reading, navigating an unfamiliar area, and recognizing faces are a few examples.

P: Are red-tipped canes only used by those legally blind or are they also used by those with low vision?

Dr. Pro: There is no requirement of legal blindness to get a red tipped cane as far as I am aware. I think they help identify profoundly blind individuals to pedestrians and motorists around them. I think this is a safety issue.

P: Does it benefit the patient if he or she is classified as blind rather than low vision as far as available services are concerned?

Dr. Pro: Yes, getting a legal blindness definition can help in obtaining services from federal and state agencies. This can include parking placards or help with transportation services.

P: The Snellen chart jumps from 20/100 to 20/200. Isn’t that a large step in vision to classify a person as having vision to blindness?

Dr. Pro: Yes, there are other charts that can record vision in between; for instance, the EDTRS chart. In addition, new digital wall charts may be able to record vision between 20/100 and 20/200. In these instances, vision recorded worse than 20/100 would meet the definition of “legal blindness.” In other words, 20/160 would meet the definition

P: At what point does a glaucoma specialist discuss low vision with a patient?

Dr. Pro: That is a great question. We are confronted daily with patients who have impaired vision. I am often amazed how some patients with very poor vision seem to function without any obvious difficulty and others with

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“CHAT HIGHLIGHTS” OF THE GLAUCOMA SERVICE WEBSITE

What Is Low Vision?

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seemingly great vision are unhappy. I try to refer to low vision services when the vision falls into the range that we have been discussing.

P: Are there questions I should ask my glaucoma specialist to assess my vision or vision loss?

Dr. Pro: Well, it is instructive to ask whether one has a very constricted field as this can affect the ability to safely operate a motor vehicle. Also you can ask what can be done to improve your level of visual functioning. This is where a low vision evaluation can be helpful. A low vision evaluation can determine which devices or behavioral modifications can maximize your visual function. This may include optimizing glasses for particular tasks such as reading, walking, watching TV, and behavioral modification such as deliberate head turning during driving for individuals with good acuity but limited peripheral vision.

P: Apart from some technological aids, are there any clinical ways to mitigate glare or other factors that cause low vision?

Dr. Pro: Glare is a common complaint that I hear in my patients with more advanced glaucoma. I think some of this is due to dry eyes. Cataracts may also account for some glare, but some seems to be due to limited vision. I think that amber sunglasses can help, which is a less expensive option, as well as polarized sunglasses, a more expensive choice.

P: How can I find a resource for low vision aids in my community?

Dr. Pro: First, I like to direct patients to visit lighthouse.org which is dedicated to low vision services and can provide direction to local

resources. Patients can contact city or local social services to find low vision resources. For example, down the street from Wills Eye Hospital is the Associated Services for the Blind & Visually Impaired (asb.org). Finally, there are optometrists who specialize in low vision and they can be located by inquiring about them from your glaucoma doctor or by a Google search.

P: Can a doctor predict how long a person with macular degeneration or glaucoma may retain their sight if their existing visual acuities are around 20/20?

Dr. Pro: The answer is determined by review of the visual fields, evaluation of OCT or macular imaging in the case of macular degeneration, and review of the history of glaucoma progression. There is no exact science on this determination but a glaucoma specialist can get a gut sense of the risk of visual worsening based on clinical exam, history, and clinical experience with many other patients.

P: Could you describe some of the training that low vision specialists undertake? Are they optometrists or ophthalmologists?

Dr. Pro: They are almost always optometrists. I cannot comment as to their training. I will admit that I was not exposed to low vision training during ophthalmology residency where the focus is more on surgical training and medical management of eye disease.

P: What values determine when a glaucoma patient should stop driving at night? Will you as a specialist advise a patient not to drive based on a visual field? Do you have to report it?

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**GLAUCOMA SERVICE
FOUNDATION TO PREVENT
BLINDNESS**

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What Is Low Vision? (continued)

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Dr. Pro: There is a duty to report individuals who have visual impairment that is determined by individual state regulations. Yes, I do have to discuss driving with my patients and it can be a very difficult discussion.

P: Is degeneration of the optic nerve usually a steady thing or can it halt for a while after some progression?

Dr. Pro: By degeneration I think you are referring to on-going damage to the optic nerve due to eye pressure too high for an individual's eye. This is the process of glaucoma and it can be halted in many cases by reducing the eye pressure to a certain level with drops, lasers, or surgery.

Moderator: Thank you so much, Dr. Pro and our chatters.

Dr. Pro: Thanks to you and all the chatters. Great questions as usual!

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