



SEARCHLIGHT ON GLAUCOMA

The Glaucoma Service Foundation to Prevent Blindness

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Announcing the 5th Annual CARES Conference Another Year of Progress Through Research Please Register Now!!

The Glaucoma Service Foundation to Prevent Blindness is hosting the 5th Annual Glaucoma Service Foundation CARES Conference on Saturday, October 15th, 2011, at Wills Eye Institute from 8:30 AM to 2:30 PM.

Since January 2007, the Glaucoma Service Foundation to Prevent Blindness at the Wills Eye Institute has held a day long conference called the "CARES Conference." CARES stands for "Committed to Awareness through Research, Education, and Support." This is a patient directed educational conference about glaucoma. Last year, over 170 patients and their families from around the United States (primarily Pennsylvania, New Jersey, Delaware, and New York) attended this conference at Wills Eye Institute.

The event includes lectures by Wills Eye glaucoma physicians. Free screenings for glaucoma are offered and encouraged. In addition, edu-

cational resources and information are available at the CARES Conference to patients living with glaucoma.

Representatives from pharmaceutical companies with patient assistance programs, Low Vision Services, Associated Services for the Blind, and the Glaucoma Research Center will be on hand. Guest speakers include Vivian Werner, Dr. Scott Edmonds, and Jule Ann Lieberman.

The conference begins with a continental breakfast. We look forward to seeing you there!

Some of the exciting lectures that will be presented:

- Patients As Knights, Knaves Or Pawns – Dr. George Spaeth
- Refraction, Magnification And Vision Rehabilitation In Advanced Glaucoma – Dr. Scott Edmonds

- Conquering Life Challenges Posed By Vision Loss – Jule Ann Lieberman, EZ2C Foundation
- Understanding Risk: Weighing Risk Factors And Treatment Risks In Your Healthcare Decisions – Dr. Jonathan Myers
- What Can I Do To Help (Or Hurt) My Glaucoma? - Dr. Jay Katz

Other speakers include:

- Dr. Scott Fudenberg
- Dr. Michael Pro
- Dr. Geoffrey Schwartz
- Dr. Anand Mantravadi

A special thanks to the Robison D. Harley Fund for Glaucoma Education and Research for sponsoring this event.

Thank you to Allergan for their continued support of the CARES Conference.

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MEETING THE CHALLENGE OF GLAUCOMA THROUGH EDUCATION AND RESEARCH

**Please consider us when you are planning your estate. Help us to fight this progressive disease.
Please contact Dr. Zeff Lazinger, President at 484-362-8800 to make an appointment.**



Denial: Bane or Boon?

George L. Spaeth, M.D.

What are the characteristics that distinguish humans from other plants and animals? Intelligence? Learning skills? Language? Ability to create beautiful works of art? The capacity to solve problems? Courage? Emotional sensitivity? If we are realistic and honest, we can find without too much difficulty examples where other species excel us in every one of these categories. Humans are certainly not more courageous than are the mothers of many species; those mothers are well aware of what constitutes life-threatening situations, and would immediately avoid those to save their own lives under ordinary circumstances, but are both creative and courageous when

Announcing the 5th Annual CARES Conference

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Register by e-mailing:

Rita Stern (rstern@willseye.org)
or Rob Kump (rkump@willseye.org)

Please call Rob Kump at (215) 928-3190. You will need to provide your name, address, phone number, and number of guests.

Website:

The following link takes you to a web page dedicated to CARES with information on registration, parking, accommodations, etc:
www.willsglaucoma.org/cares2011.htm

There will be no charge to attend but space is limited, so please register NOW!

they choose to protect their young. Whales are much more articulate than many teenagers. No human could spin a spider web, and numerous studies have demonstrated that dogs are often far more sensitive to emotions than are people.

There is one area in which humans are the unquestioned champions. No species, no individual in any species, can match the astounding ability to do what may be uniquely human, specifically, deny. This remarkable capacity to deny is appropriate for those interested in health to think about deeply, because denial, in different forms, is probably the major reason why people with many illnesses become worse.

That comment may be greeted with doubt or even derision (especially by those most adept at denial). So, let's be specific. Glaucoma, that is optic nerve damage caused by pressure in the eye higher than the eye can tolerate, has its initiation in many sources, commonly the genetic makeup of the individual. It is well known that glaucoma is more likely to occur in individuals with certain genetic backgrounds and that it is hereditary. Yet, doctors do not insist that the family members of those patients for whom they are caring be tested for glaucoma. Were they truly interested in this, they would look at the optic discs of the patient's brother, sister, daughter or son when they are in the office. But physicians deny the importance of finding glaucoma in the relatives, and therefore fail to act. It is not just physicians who deny. Children bring their blind parents into

the office to get checked for their glaucoma, but the children do not get themselves checked, even when the doctor points out that they should be. Denial.

Glaucoma can be caused by various types of treatments, such as cortisone products taken orally, nasally or in the form of eye drops. Doctors surely know this, or if they do not, they are denying their responsibility to understand the side effects of medications they are ordering or using. Yet doctors, including ophthalmologists, not only order corticosteroids without having their patients checked to see whether the medications are causing pressure rises, they also use those drugs themselves; physicians are among the most common individuals to develop corticosteroid-induced glaucoma! Denial.

Another reason why glaucoma develops is because of trauma to the eye. This may cause glaucoma immediately or 20 years later. The immediate form is usually recognized and often properly handled. But physicians either frequently forget, or patients unfortunately ignore the glaucoma that occurs in the traumatized eye or even in the untraumatized eye years later. As a result, the intraocular pressure elevation that proceeds the late damage is not detected until irreversible visual loss has occurred. Denial.

More specifically, in the United States more than half of those who have glaucoma never get diagnosed.

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Why? 1) Doctors deny their responsibility to check for diseases which cause preventable damage, such as high blood pressure, diabetes, depression, and glaucoma. 2) The government denies its responsibility to develop a health-care system that educates and that creates an environment that helps individuals care for themselves by educating and by providing necessary assistance, especially for those unable to afford care themselves. 3) Finally, and most importantly, people fail to get diagnosed because they deny their responsibility to care for themselves.

Unfortunately, truly tragically, there is almost no constituency fighting to improve self-care. Why is there no constituency fighting to improve self-care? Because the only group who stands to benefit from improved self-care is the government, and the government is comprised of representatives who are either too uninterested or too conflicted to see that and act on it.

Doctors and the medical profession have never been interested in self-care. In fact, when graduating physicians recite the Hippocratic Oath, they swear they will not share their knowledge with individuals who are not physicians. Why should physicians be interested in self-care? After all, if everybody was well, how could physicians support themselves? But that is just another form of denial. Because, in fact, doctors would be utilized to do what they should be doing, which is care for patients who have conditions that do not respond to self-

care, and work to improve the health or perform corrective measures for those inevitable situations in which doctor services are necessary, such as broken bones, carpal tunnel syndrome, cataracts, and the illnesses which cannot be avoided no matter how well one cares for one's self. Hospitals are uninterested in self-care. Pharmaceutical companies have a logical interest in educating patients how to care for themselves, and many are starting to do that. But those who have the most to gain are the ones who are most resistant, specifically, the patients themselves.

Patients often do not take responsibility for their own health. Somewhere between one-third and one-half of those who have chronic diseases which can be benefited by treatments do not do what is necessary for them to do in order to preserve their health, such as using drops for glaucoma, controlling one's weight with diabetes, decreasing salt intake with hypertension, etc.

That "30-50" percent figure is a very conservative estimate. With certain conditions, such as being overweight, those who do not care for themselves is closer to 99 percent. There may be a handful of people in the United States who are overweight because of a reason other than eating too much, but it is not more than a handful. So the epidemic of obesity in the United States is self-created. I feel a responsibility to say something to patients who are seriously overweight, because I hope that some encouragement to lose weight may help them accomplish that. Yet, virtually always the individuals

respond that they are not overweight because of how they eat. This is a painful form of denial regarding health, because it is so self-destructive and so unnecessary. Here the individual has total control over the situation and yet fails to act appropriately. Not only do many such individuals challenge the thought that they are overweight because they eat more than they need, but they are offended and even get angry when that idea is raised.

Perhaps the most tragic misconception about denial is that it has survival value. It does not. Seeing things realistically allows one to take appropriate steps. Some reading this may have seen the movie, "It's a Beautiful Life," about a man and his son who are in a concentration camp in Germany in the 2nd World War. The father recognizes the horror of the situation and creates a world which makes it possible for his son to survive. That is not denial. The father bases his creation on a profound understanding of reality and takes brilliant adaptive steps to deal with that reality, not with a fantasy. The result is a happy one for both the father and the son. No, the idea that denial is necessary for survival may be the most vicious form of denial.

Denial is no boon. It is an unmitigated bane. Not recognizing this is but another manifestation of this terribly tragic practice, which appears to be uniquely human. ■



Letter from our President



Dr. Zeff Lazinger

"To be or not to be." We are all familiar with the quote. I have another saying that is "To see or not to see." We are concerned with your visual health. Our vision is to make an attempt to help as many people as possible through our education and research to cure glaucoma.

We need your financial support to continue our efforts in researching glaucoma. With all of the cutbacks in healthcare, we must depend on each other's generosity. Please help us by sending us a donation or consider the Glaucoma Service Foundation as part of your estate planning.

As you can clearly see, we have cut down on the frequency of the Searchlight from quarterly to bi-annually because we don't have the funds to support this important endeavor. Please help us publish the Searchlight quarterly by sending in your tax deductible donation today.

Respectfully Yours

Dr. Zeff Lazinger
President

Farewell to our 2010/2011 Clinical Fellows



From left - Dr. L. Jay Katz, Dr. Robert Goulet, Dr. Shelly Gupta, Dr. Kathryn Freidl, and Dr. George Spaeth. Photo by Roger Barone.

Congratulations to the graduating clinical fellows of 2011, Dr. Kathryn B. Freidl, Dr. Robert J. Goulet, III, and Dr. Shelly R. Gupta. A ceremony was held on Friday, June 24, for all of the graduating fellows and residents of Wills Eye Institute. We wish all of them the best, but for those of us here at the Glaucoma Service Foundation, Kathryn, Robert, and Shelly are the "Class of 2011." We have gotten to know them very well since their office is right across the hall from the Foundation. They are wonderful and caring people who we are sure will continue to have successful careers as have so many Wills glaucoma fellows before them.

Dr. Freidl will be working with Florida Eye Associates in Jacksonville, Florida, while Dr. Goulet will be joining the Boling Vision Group in Elkhart, Indiana. Dr. Gupta will be moving back to her home state of Ohio to work with The Ohio State University in Columbus. Dr. Freidl

says of her time spent at Wills "When I started here Dr. Spaeth told the three of us that his goal was to make our year at Wills the best year of our lives. I thought he was joking, but it really has been the best year of my life. Between the training, the people, and the friends I've made this has been a wonderful experience."

The ophthalmic technicians who have worked closely with the clinical fellows over the past year have nothing but positive things to say about them. Effie Birbilis described them as "dependable team players, very nice to work with." Ro Verlengia said "It was a good year, they were great with follow up and we will miss them."

The Glaucoma Service Foundation wishes Kathryn, Robert, and Shelly all the best in their future careers. ■



In the Research Corner

By Sheryl S. Wizov

When visiting your glaucoma doctor, you could be approached to participate in a research study. The Research Center and your doctor have determined that you may be a good candidate for a specific study. A staff member will explain the study to you in detail. If you are in agreement, your written permission will be obtained. This consent form must first be signed by you, witnessed by the staff and signed by a physician before the study can begin. A copy of the signed consent form will be provided for your records.

A major reason why patients do not participate in research studies is because they have concerns about the risks of those studies. There are other reasons, of course, such as the time that is involved, as well as the inconvenience to the patient. One of the major reasons I wanted to write this article is to put the issue of risks into better perspective. I have been involved in clinical research trials for 22 years, and I feel comfortable on commenting on this important matter. Some studies that were performed many years ago were done without obtaining approval from a group dedicated to protecting patients. Some were done without adequate regard for the human research subjects, and some without adequate continuing oversight. Some studies were even done without the participant's knowledge. In other words, there was no opportunity for those participants to understand the study and to weigh what might be risks and benefits. This is not the

case today. Stringent rules from different sources protect the health and safety of human subjects by regulating the way scientists and physicians may conduct research. These regulations assure that we are all concerned about the health and safety of every participant.

Before a study begins, a detailed protocol is submitted to a local or institutional review board. Our studies are approved and monitored by the Wills Eye Institute Institutional Review Board (IRB). This Board is comprised of a lawyer, a member of the clergy, medical experts and members of the community. The Board's responsibility is to evaluate research protocols and determine if the benefits to patients and society outweigh the risks according to Federal Regulations. The IRB can approve, reject or recommend changes to the protocols submitted. The IRB requires annual monitoring of each study from start to finish and must approve any changes to the protocol that take place along the way.

Another level of oversight exists with the Food and Drug Administration (FDA) of the Federal Government. When new drugs or new devices are being tested, approval first goes through the FDA and then local or institutional IRB approval must also be obtained. The FDA can also approve, reject or recommend changes to the design of the study.

Here are a few helpful hints when measuring a study's level of risk. Surveys and questionnaires pose no risk to participants but still require IRB

approval. The responses to studies like these can make a huge impact on such issues as the way patients receive treatment, and how to better educate patients, just to name a few. Validating or comparing different testing strategies also poses little to no risk to participants, but provides vital information about the value of the tests that the patients take in clinical care.

Low risk studies may include having your eye pressure checked or using an already FDA approved eye drop, or providing blood samples. The risks may include minor irritation from having your eye pressure checked or from the new drop or a bruise and soreness at the site where blood was drawn.

Moderate risk studies may include trying a new eye drop that has only early stage approval from the FDA. These studies typically require close observation and blood work to ensure that if any side effects do occur, they are reported to the FDA in a timely manner.

Studies involving surgery may seem to come with higher risks. However, studies of surgical procedures are done to compare a new procedure with an older one. A person only has the newer procedure if they were already going to need the older procedure. Thus, the risks of these studies may seem to be higher, but that is because surgery usually has higher risks than non-surgical treatments. If you are being considered for such a study, your surgeon will

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Welcome our New Glaucoma Fellows



Dr. Valerie Trubnik received her medical degree from the State University of New York Downstate College of Medicine where

she was a member of the Alpha Omega Honor Society and graduated with honors in Medicine, Surgery, Pediatrics, OB-GYN, and Neuro-Ophthalmology. After graduating she completed a one year Internship at Lenox Hill Hospital in New York City, during which time she was awarded Resident of the Month. Between 2008 and June of this year, Dr. Trubnik completed her ophthalmology residency at New York Eye and Ear Infirmary in Manhattan. Outside of medicine Dr. Trubnik is an award winning dancer, having been a semi-finalist, and a finalist in the United States Ballroom Dance Sport Championship, and winner of the Northeastern U.S. Ballroom Dancing Competition in 2001.

When asked what sparked her interest in ophthalmology, Valerie replied: "I first became interested in glaucoma while in college when I was told that my grandfather, who had never received an eye exam in the former USSR, was diagnosed with it during an evaluation for cataract extraction in the United States. He was found to have advanced pseudoexfoliation glaucoma at the time of diagnosis resulting in significant visual field loss. I was both surprised and saddened by the unexpected and silent nature of the disease and vowed I would pursue it further."



Dr. Thandeka Myeni completed her medical degree at the Medical College of Georgia. During her time at Georgia Thandeka was

awarded the Roman Barnes Society of Ophthalmology Award and the USAA National Collegiate Minority Leadership Award. After graduation, Thandeka went on to complete a Medical Internship at the Boston Medical Center from 2006 through 2007. Dr. Myeni then furthered her education by pursuing a Masters in Health Management degree at Harvard University. While at Harvard, Thandeka was awarded the American Medical Association Foundation Leadership Award. Dr. Myeni completed a residency in ophthalmology at Howard University in Washington, D.C. Outside of the exam room, Thandeka is also a dancer. She is mainly interested in Salsa, West African dance, and Middle Eastern dance.

When asked about her continued training in glaucoma, Dr. Myeni stated: "As a physician not only do I have a duty to contribute to the body of knowledge in my field, I also feel a strong sense of obligation to help provide eye care to underserved populations, both domestically and internationally. My unique background has contributed to my global perspective on glaucoma. As a public health practitioner, I am deeply disturbed by the burden of this disease worldwide. Having grown up in Swaziland, a small country in Southern Africa with only one ophthalmologist, I would like to have the skills needed to treat and address glaucoma."



Dr. Jesse Richman is a graduate of Thomas Jefferson Medical College in Philadelphia where he was born and raised. While at

Jefferson, Dr. Richman was a member of the Hobart Amory Hare Honor Society and volunteered to provide eye care to the homeless at local shelters. If Dr. Richman looks familiar, it's because he spent time working with Dr. Spaeth in both the clinics and in the surgical center while a student at Jefferson. Once he received his medical degree, Jesse spent a year as an Intern at Frankford-Torresdale Hospital. For the last three years, he has been an ophthalmology resident at Brown University in Providence, Rhode Island. Jesse is an accomplished athlete, having been Jefferson's racquetball champion and has competed in triathlons. He is also an avid rock climber.

When asked about his choice to enter into a career in glaucoma, Jesse replied: "The decision to pursue a career in ophthalmology was an easy choice. I always knew that I wanted to live my life with meaning and I was attracted to the intellectual challenges that ophthalmology provides. Choosing to focus on a particular field in ophthalmology was difficult, as I enjoy many aspects of ophthalmology, but one specialty stood out above the rest. Caring for glaucoma patients encompasses everything I desire in a career; difficult medical decisions, intricate surgeries, and the opportunity to create long-term patients relationships based on compassion, confidence, and trust."

All photos taken by Bill Romano



Meet New Research Fellow Dr. Nont Rutnin



Dr. Nont Rutnin will be completing a Research Fellowship at Wills Eye Institute between July 2011 and July 2012. Nont is a native of Bangkok, Thailand and an ophthalmologist at Rutnin Eye Hospital. He is the nephew of Dr. Uthai Rutnin, one of Thailand's most famous ophthalmologists. Nont is a graduate of Siriraj Hospital, and has trained at Ramathibodi Hospital at Mahidol University where he completed

his residency and clinical fellowship. He is active in the Thai Glaucoma Society and the Royal College of Ophthalmologists of Thailand. Dr. Rutnin has presented his work at the Congress of Asia-Pacific Academy of Ophthalmology. Besides being a physician and researcher, Nont is an avid swimmer and tennis player, and a photography enthusiast. ■

Research Fellow Dr. Lan Lu Volunteers Her Time

Dr. Lan Lu, one of our newest Glaucoma Research Fellows, started working at the Glaucoma Research Center in April 2011. Dr. Lu is a native of the Peoples Republic of China and received her Medical Degree from Fujian Medical University. Dr. Lu is an accomplished researcher, having numerous articles published in China.

Lan has been volunteering at the Philadelphia Senior Center-Coffee Cup Branch every Thursday afternoon during her lunch hour since early May. Lan discovered the senior center while walking in the city. She explained to the staff her background as an eye surgeon in China and how she enjoyed working with the elderly as well as her work as a research fellow. Lan feels like educating the elderly on eye care is a very important role. Lan gives basic education on eye care. Her weekly eye topics



Dr. Lan Lu lecturing to the Seniors at the Philadelphia Senior Center Coffee Cup Branch

include glaucoma, cataracts, eye diseases such as conjunctivitis, macular degeneration, and refractive error and she spends each Thursday discussing one eye topic in detail.

The Philadelphia Senior Center - Coffee Cup Branch provides a place for seniors to have a hot meal and take-home snack, as well as opportunities for recreation and other supportive services. A majority of Philadelphia

Senior Center – Coffee Cup Branch members are fluent in Mandarin and Cantonese. The branch is located at 247 South Tenth Street and is near three senior housing complexes. It is convenient to Chinatown and Thomas Jefferson University Hospital and is also open Monday through Friday from 9:00 a.m. - 5:00 p.m. Their website is http://www.philaseniorcenter.org/location_coffeecup. ■



In the Research Corner

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tell you why he or she is considering the new surgery, and its potential advantages and disadvantages. If you do decide to participate in a research study, you may be assigned to a standard-of-care group otherwise known as a control group. In this case, you may not directly benefit by your participation. Control Groups are just as vital to the research as treatment groups for they are the comparison of the new drop or surgery being investigated.

All of this information and more is contained in the pages of a consent form, which can seem intimidating and overwhelming. However, the

information, including the risks, pertains to each specific study to help you decide whether or not to participate in the study. We do not want people to participate in any research study unless they genuinely want to, after they fully understand the study. It is also important for all our patients to know that if you choose not to join a particular study, that choice will not in any way affect the care you usually receive from your doctor.

The Glaucoma Research Center team, the glaucoma doctors at the Wills Eye Institute, the Wills Eye Institutional Review Board, and the FDA all have considered the legal and ethical aspects of the study that is presented to you, to ensure your protection as a human subject in a clinical research

trial. Only you can decide if participation is the right choice for you. If you or someone you know is interested in learning more about one of our glaucoma studies, please feel free to contact us. You will need an eye exam to determine eligibility. This may or may not be covered by your medical insurance. This will be discussed with you before you agree to participate.

If you wish to learn about the many studies presently underway, please contact the Glaucoma Research Center: Mary Jo Schwartz, Administrator (215) 928-3123 (mschwartz@willseye.org); Jeanne Molineaux, Coordinator (215) 825-4713 (jmolineaux@willseye.org); Sheryl S. Wizov, Coordinator (215) 928-3221 (swizov@willseye.org).

FROM THE "CHAT HIGHLIGHTS" OF THE GLAUCOMA SERVICE WEBSITE

Blood Pressure and Glaucoma Chat Highlights

Steven Beck, Editor

On Wednesday, May 4, 2011, Dr. Anand Mantravadi, a glaucoma specialist at Wills, and the glaucoma chat group discussed "Blood Pressure and Glaucoma."

Moderator: We are pleased to welcome a special guest tonight, Dr. Anand Mantravadi. Tonight's topic is "Blood Pressure and Glaucoma Patients." Dr. Mantravadi, would you like to introduce yourself?

Dr. Anand Mantravadi: Thanks everyone for being here. It's a pleasure to be here. My name is Anand Mantravadi, and I am a member of the Wills Glaucoma Service, and on the faculty at Thomas Jefferson University.

P: Is a person with ocular hypertension or high IOP likely to have elevated blood pressure?

Dr. Anand Mantravadi: With regards to ocular hypertension or high IOP and high blood pressure, perhaps we should outline what we know and don't know first. The relationship between glaucoma/ocular hypertension and blood pressure is a fairly complex one and there is much about this relationship we have to learn.

While high IOP plays a major role in the development and progression of glaucoma, there are clearly other factors involved, and there has been a longstanding theory dating back to the 19th century that impaired blood flow to the optic nerve plays a role in the disease.

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There are several studies that show an association of high BP with glaucoma, but yet others that clearly demonstrate low BP's or perfusion pressures associated with glaucoma as well.

I am happy to elaborate on that last point if you wish.

Moderator: Yes, please do.

Dr. Anand Mantravadi: Large population based studies such as the Baltimore Eye Survey have reported associations of high systolic BP and diastolic BP with POAG in elderly individuals. However, there is also a clear association of low blood pressure as a risk factor (Early Manifest Glaucoma Trial). The optic nerve needs adequate blood flow to function properly. "Perfusion pressure" is a measure of the pressure that needs to drive the blood through the capillary beds to the optic nerve and other tissues. Perfusion pressure is easy to calculate theoretically. It is simply the level of blood pressure in the ophthalmic artery minus the level of intraocular pressure. However, there are many barriers between the ophthalmic artery and the capillaries that actually supply the optic nerve. Therefore, just assuming that more blood gets to the optic nerve because the blood pressure goes up is dangerous.

When the BP is measured, you get a systolic and diastolic pressure.

P: Do those relate differently to glaucoma?

Dr. Anand Mantravadi: There is evidence that lower diastolic perfusion pressures are possibly a risk factor for glaucoma progression. So getting back to the question, a person with ocular hypertension/high IOP may or may not have elevated blood pressures. There is not a linear correlation because the mechanism of glaucoma can

vary significantly

P: I have never seen an ophthalmologist check blood pressure. Does the MD depend on previous medical history regarding this?

Dr. Anand Mantravadi: Great question. Blood pressure is a very important thing to know, and in patients who have low tension or normal tension glaucoma, I believe it is important to ask about low blood pressure. The role of routine BP measurement in an ophthalmic practice has not really been well established, but it would be important to know.

P: Can the amount of blood flow to the eyes be increased?

Dr. Anand Mantravadi: There is no evidence that demonstrates the value of increasing blood pressure as a therapy for glaucoma; by lowering IOP, one can theoretically increase perfusion pressure to the optic nerve.

P: What is the relationship between migraine, blood pressure, and glaucoma?

Dr. Anand Mantravadi: For migraines, there is some data supporting a relationship between migraine/vasospastic disease and normal tension glaucoma. The CNTGS (collaborative normal tension glaucoma study), did find that a history of migraines increased the rate of progression by a factor of around 2.5. It is thought that vasospasm plays a role in migraines, and also there is a higher prevalence in NTG patients.

P: Do POAG patients experience the same "nocturnal dipping" of blood pressure as NTG patients?

Dr. Anand Mantravadi: There are several studies that suggest that nocturnal arterial hypotension

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is more common in normal tension glaucoma than in the higher pressure glaucomas.

P: Do glaucoma medications have an effect on blood pressure?

Dr. Anand Mantravadi: Yes, glaucoma medications can certainly affect blood pressure, such as beta-blockers.

P: Could you please discuss what effect(s) physical exercise has on BP and IOP? Would active physical exercise be helpful to a glaucoma patient?

Dr. Anand Mantravadi: In general, good cardiovascular fitness would be beneficial not only for your eyes (the proper perfusion of the optic nerve and retina), but also your general health.

P: Thanks, this is very interesting. My BP tends to be low and generally I think since it isn't elevated, the subject of BP never comes up. Maybe I should bring it up? What do you think?

Dr. Anand Mantravadi: For those with the diagnosis of "normal tension" or "average pressure glaucoma", I do believe elucidating a history of low blood pressure is important.

P: How is perfusion pressure expressed?

Dr. Anand Mantravadi: In units of millimeters of mercury (mmHG) (the same units that are used for blood pressure and intraocular pressure).

P: Dr Anand, with ophthalmologists in the US trying to become meaningful users of electronic healthcare records (HER), will they have to take blood pressures routinely, with every visit?

Dr. Anand Mantravadi: Great question, and although at the outset of "meaningful use" those measures are to be included, my understanding is that some sub-specialties may have a more focused panel of recommended recorded parameters specific to the sub-specialties.

P: How high or low do blood pressure readings need to be, to cause additional glaucoma damage to an already damaged eye?

Dr. Anand Mantravadi: I don't believe specific numbers are known. This relates back to different inherent susceptibilities to damage. There are some optic nerves that clearly can sustain much higher eye pressures and those that cannot. Similarly for blood pressure, there are probably some optic nerves that sustain damage from different levels of high or low BP than others.

One interesting study from Greece recently showed that lower diastolic BPs were associated with increased cupping of the optic disc, but again, the actual values are largely unknown and likely highly variable.

P: If blood pressure drops too low at night, what can be done to increase it?

Dr. Anand Mantravadi: I would like to underscore that to the best of my knowledge, there has been no meaningful evidence that demonstrated the value of increasing blood pressure as a therapy for glaucoma, and that doing so can potentially be associated with serious cardiovascular risks. That being said, if people have low tension/normal tension glaucoma, to minimize the nocturnal dips, I try to avoid beta blockers and at the very most would use them once in the morning, to minimize such dips.

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P: Patients can also monitor their own BP. Is this advocated for glaucoma patients?

Dr. Anand Mantravadi: The real value of how that information can be used clinically in the ongoing care and decision-making for glaucoma patients is not well established.

P: Are there any vitamins or minerals that a patient can take to increase the blood flow to the optic nerve?

Dr. Anand Mantravadi: Gingko Biloba has been associated with increased blood flow, but not well studied in a controlled fashion to really know.

P: Can you comment on what kinds of investigative studies are being done to clarify relationships between BP and IOP? Maybe we should volunteer.

Dr. Anand Mantravadi: The literature thus far started in population based studies linking associations. More recent data involved some cross-sectional population based studies such as the study from Greece. I will have to get back to you on what potential current trials are ongoing, if any.

P: Does sodium intake have any effect on IOP?

Dr. Anand Mantravadi: Not a direct one that I am aware of.

Moderator: Thank you so much Dr. Mantravadi. It's been very interesting and we really appreciate your taking the time to be with us this evening.

Dr. Anand Mantravadi: I had a great time, and look forward to the opportunity to chat again. Thank you and good night everyone.

GLAUCOMA CHAT SUPPORT GROUP

Join Moderators Vivian, Steve and Brittany the 1st and 3rd Wednesday of every month for a chat about glaucoma hosted by a glaucoma specialist. The glaucoma chat support group also meets Monday evenings and Saturday mornings where patients, family and friends can chat.

For a complete schedule visit:
<http://willsglaucoma.org/chatsched.htm>



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We wish to announce the receipt of a generous bequest, which is of great importance to the continuing function of the Glaucoma Service Foundation, from the Estate of Mrs. Gertrude Schrot, a former patient of Dr. Rick Wilson and Dr. George Spaeth. At present the Glaucoma Service survives because of individual philanthropic contributions, bequests, funds that have already been contributed to members of the Glaucoma Service (such as Dr. Wilson), grants from industry, grants from foundations and agencies (such as the Scholler Foundation), and the Robison D. Harley Fund for Glaucoma Education Research. Bequests form a major part of our income and help support our research, fellows and our patient educational programs such as the CARES conference. We strongly encourage those who believe in what we are doing to include in their Will a provision that assures that the funds will be given to the Glaucoma Service Foundation. As a 501 (c)(3), all contributions are tax deductible. Please contact us at (215) 928 3190 if you have any questions on how to proceed.



**GLAUCOMA SERVICE
FOUNDATION TO PREVENT
BLINDNESS**

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CHAT SUPPORT GROUP

www.willsglaucoma.org

**1st and 3rd Wednesday of the month
8:30 – 9:30 pm**

Hosted by a Wills Glaucoma Specialist

Mondays, 8:00-9:30 pm

Patients and family members only

Current and archived chat highlights are available for review on our website (www.willsglaucoma.org). If you do not have access to a computer, call the Foundation to have a printed copy mailed to you. If you are interested in a certain topic, please let us know.

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