



SEARCHLIGHT ON GLAUCOMA

The Glaucoma Service Foundation to Prevent Blindness

Board of Trustees: Maxine Colm, EdD, President • Leonard Rosenfeld, PhD, Vice President
George L. Spaeth, MD, Director of Medical Research and Education • L. Jay Katz, MD, Secretary • Marc Goodman, CPA,
Treasurer Susan Schneider, MD

John Munshour • Karen Palestrini, Esquire • Irvin Schorsch • Susan Schneider, MD • Katerina Simonetti, CFP
Richard Smoot • George Strimel • Charles Tressler, MD • Chris Urban • Joseph Watson • Jeremiah J. White, Jr. • Ken Wong

Honorary Trustees: Charlotte Bonmartini • Steve Harmelin, Esquire
James Kim • Zeff Lazinger, DC • Jonathan S. Myers, MD

Announcing the 9th Annual CARES Conference Please Register Now!!!

The Glaucoma Service Foundation to Prevent Blindness is hosting the 9th Annual CARES Conference on Saturday, April 9, 2016, in the Dorrance H. Hamilton Building at Jefferson Hospital, Philadelphia, PA from 8:00 AM to 2:00 PM.

Since January 2007, the Glaucoma Service Foundation located at the Wills Eye Hospital 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 275 patients and their families from around the United States (primarily Pennsylvania, New Jersey, Delaware, and New York) attended this conference at Jefferson Hospital.

The event includes lectures by Wills Eye Glaucoma physicians. Free

screenings for glaucoma are offered and encouraged.

Representatives from pharmaceutical companies with patient assistance programs, Associated Services for the Blind, and the Glaucoma Research Center will be on hand.

The conference begins with a continental breakfast and ends with a luncheon.

Following is a list of exciting lectures that will be presented:

Jenina Capasso, MD, LCGC
Genetics of Adult Glaucoma

Stacie Doan, COTA
Shared Vision

Dr. Ryan Edmonds
How to See Around Glaucoma

Dr. Scott Fudenberg
Drug Delivery in Glaucoma:
The End of Eye Drops

Lisa Hark, PhD, RD
Ongoing Glaucoma Research

Dr. Daniel Lee
Gaps in Care: A Patient's Experience

Dr. Anand Mantravadi
New Surgeries for Glaucoma (Video)

Dr. Marlene Moster
Glaucoma's Impact on Quality of Life

Dr. Michael Pro
Wills Eye International Ophthalmology:
Glaucoma Mission to Haiti

Dr. Jonathan Myers
Overview of Glaucoma

Deb Robinson, MSS, LSW
Navigating the Healthcare System
from a Social Worker's Perspective

**Joe Saunders, Board President and
Sue Boyle, Director – Center for the
Blind and Visually Impaired**
CATS!, Not the Musical

(continued on page 2)



A Message From Our President



Dear Searchlight Reader,

I hope you will find that the articles in our spring edition underscore the

Glaucoma Service Foundation’s commitment to community outreach initiatives. Be that achieved through the Spaeth Oration that brings together physicians, researchers, and students at medical institutions throughout the Greater Philadelphia Area for an evening of discussion about

advances in glaucoma research or attending the 9th Annual Cares Conference to be held on April 9, 2016, the Foundation’s mission remains the same – to increase awareness about glaucoma, its early detection and treatment through education and research.

I encourage you to read the articles devoted to these activities and especially to mark your calendars and attend the CARES Conference on April 9th to be held in the Dorrance Hamilton Building of Thomas Jefferson University. The

Conference is open to the general public. There is no charge for glaucoma screening and there is ample opportunity to talk with Wills Eye specialists and learn more about new techniques for patient treatment and self-care. I hope you will be one of the attendees, and I look forward to greeting you on April 9th.

Sincerely,

Maxine Colm, President
Glaucoma Service Foundation

Announcing the 9th Annual CARES Conference - Please Register Now!!!

(continued from front page)

George Spaeth, MD

Lifestyle, Diet and Glaucoma

A special thanks to the Robison D. Harley Fund for Glaucoma Education and Research for sponsoring this event. Thank you to Allergan, Alcon, Accutome, and Carl Zeiss Meditec for their continued support of the CARES Conference:

Register by emailing: Rita Stern at stern@willsglaucoma.org

Please call our office at (215) 928-3190 or Rita Stern at (484) 678 -4535. You will need to provide your name, address, phone number, number of guests, and email address.

Visit our website at: www.willsglaucoma.org/cares with information on registration, parking, accommodations, etc:

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

Announcing the 9th Annual CARES Conference

Date:

April 9, 2016

Time:

8:00 AM - 2:00 PM

Location:

Dorrance Hamilton Building of
Thomas Jefferson University
1001 Locust Street, Philadelphia, PA 19107

Convenient to PATCO line and SEPTA.
Parking is available behind the building at
221 S. 11th Street, Philadelphia, PA.



The 39th Annual Spaeth Oration

The Glaucoma Service Foundation celebrated the annual E B Spaeth Oration on January 14, 2016 at the College of Physicians. Louis R. Pasquale, MD, FARVO, was the keynote speaker. Dr. Pasquale is the Professor of Ophthalmology and Distinguished Scholar in Ophthalmology at Harvard Medical School. His lecture was entitled “Meet Patient XX and XY: A Product of Their Genes and Environment.”

It was the 39th year of the event which honors Edmund B. Spaeth, who was a busy, internationally respected physician and teacher. Edmund Spaeth passed away at age 86 in 1976. The evening,



Louis R. Pasquale, MD

Photo: Roger Barone

devoted to celebrating great teaching and great teachers, brings together fellows, residents, and medical students from Wills Eye Hospital, Temple, Jefferson, Scheie Eye Institute, Drexel, Children’s Hospital of Philadelphia, and Philadelphia College of Osteopathic

Medicine and ophthalmologists from all over the Greater Delaware Valley. Representatives from Accutome, Alcon, Allergan, and New World Medical and Board Members from the Glaucoma Service Foundation were also in attendance. Accutome, AKORN, Alcon, Allergan, and New World Medical were the joint sponsors for this wonderful informative evening. The intent of this unique event is to broaden and deepen ophthalmologists’ understanding of the art and science of medical practice. It is an educational evening both academically and socially. The event is also part of the Greater Philadelphia Ophthalmic Society’s series of programs. ■

Dilru Amarasekera



Dilru Amarasekera, a second year medical student at Sidney Kimmel Medical College at Thomas

Jefferson University, was invited to deliver an oral presentation at the American Glaucoma Society Annual Meeting on March 4, 2016 in Fort Lauderdale, Florida. Dilru will be presenting her research project titled “Short-duration Transient Visual Evoked Potentials

(SD-tVEP) and Steady-state Pattern Electroretinogram (ss-PERG) for Detection of Reversal of Retinal Ganglion Cell Dysfunction in Ocular Hypertension Patients.” She is mentored by Drs. Anand Mantravadi, Michael Waisbourd, L. Jay Katz, and Lisa Hark. Dilru’s research focuses on the use of newly-developed office based electrophysiology tests, SD-tVEP and ss-PERG, and their potential to detect reversal of neuronal dysfunction after immediate lowering of eye pressure. This information is particularly valuable for patients with high eye pressures,

who do not have glaucoma – and therefore do not have characteristic changes to the optic nerve or visual fields. These patients often pose a challenge to physicians, since many will never develop glaucoma or vision loss, and therefore may not need treatment. If an office based electrophysiological test were able to detect reversal of neuronal dysfunction after immediate lowering of the eye pressure, it may help determine which patients would most benefit from long-term therapy. ■



Helpful Advice for Getting Eye Drops In

By: Qi N. Cui, MD, PhD and Marlene Moster, MD

Treatment of glaucoma often requires multiple eye drops applied on a daily basis. The correct administration techniques are very helpful in ensuring maximal medical efficacy while limiting unwanted side effects. Here are 5 tips to keep in mind while using glaucoma eye drops.

1) Make room

An easy way to make sure each and every drop gets into the eye is to place it into the space between the lower eyelid and the eyeball, or what's called the inferior fornix. A pocket can be created in the inferior fornix by pulling the lower lid down and away from the eye to make a space between the eyelid and the eyeball. The eye drop can then be applied into this pocket. It is perhaps easiest to do this with the head leaning back. Should neck or back pain make head back positioning impractical, another option would be to do this in front of a mirror. As with most things, practice makes perfect.

2) One drop is sufficient

Each bottle is designed in such a way that a single drop has more than enough medication to do the job. Therefore, as long as the first drop of medication reached the ocular surface upon leaving the bottle, a second drop from the same bottle is not necessary. Furthermore, because the volume of each drop is more than that can be accommodated in the inferior fornix, it is normal for eye drops to run down the cheek immedi-

ately following administration. Rest assured that more than enough medication has been applied to the eye in this process.

3) Close your eyes and gently press

To help medications work inside the eye and to avoid systemic side effects, punctual occlusion immediately after medication application is always prudent. The puncta are small openings at the inner corners of the upper and lower eyelids that serve as the opening to the nasolacrimal system, which is the body's pathway for wicking away tears from the ocular surface through drainage to the back of the nose. After applying eye drops, close your eyes and apply one clean finger each to the inner corners of both lids to occlude these small openings. This will keep the medicines in



Eye drop application



Punctual occlusion



Eye drop application

the eyes and prevent drainage into the systemic circulation. Do this for 2-5 minutes after each set of drops.

4) Timing is important

Each type of medicine only works for a certain amount of time. Variable durations of efficacy is why certain eye drops must be applied three times a day while others can be applied once a day. To ensure maximal efficacy, it is advisable to use each medication regularly and to follow the administration schedule specified by your ophthalmologist. Remember, eye drops can only work if they are inside your eyes.

5) Don't forget about cleanliness

Finally, try your best to keep the bottle tips and caps as clean as possible. Use alcohol wipes to clear the tips and the caps of the bottles if they accidentally come into contact with the ocular surface and/or appear less than sanitary. Also do not forget to always wash your hands before applying eye drops as our hands can be a major source of contamination.

We hope these tips prove helpful, and thank you for trusting us to accompany you in this journey. ■



Shared Care

By George L. Spaeth, MD

Something is seriously wrong when there are epidemics of obesity, diabetes and murders, and around 80% of people with chronic diseases such as glaucoma or tuberculosis don't take their medications properly or return for their follow-up visits. Specifically something is wrong when people don't adopt lifestyles that will be most likely to help them live healthy happy lives, especially when they know they have something that is wrong and that can be treated appropriately.

Why is that? Whatever the reasons, it is a sad commentary on both the people acting foolishly and on the profession responsible for helping them. This "Searchlight" has published articles encouraging good self-care. Few have responded positively and the idea has few supporters. It may be that it sounds "selfish,"

that is, putting oneself first. In fact it really is selfish, but in a good sense. It is importantly not putting oneself first at the cost of others. That is not good self-care because the others are likely to be upset or hurt or angry at the apparently selfish person. The result is the development of enemies, and the cultivation of enemies is not predisposed to a healthy happy life.

Self-care also implies that help from others is not needed if this is also wrong we always need help from others. So let's put the designation self-help to rest. Let's throw it in the wastebasket. But let's not put in the wastebasket what's behind that name; let's change it to shared care. Admittedly fuzzy and imprecise, but perhaps more likely to be acceptable and perhaps to motivate people towards the desired outcome is this

phrase "shared care."

The desired outcome is taking responsibility for those aspects of one's health and one's care that are under one's control or can be brought under one's control. Until that happens, there will not be an effective, affordable system of healthcare and people will not be as healthy as they can be. ■

Bequests are very important to our foundation.

Please give now and give generously, and remember us in your will. Bequests cover operational, administrative, and direct research costs. Please contact our office at (215) 928-3190 to speak with our staff.

Support the Glaucoma Service Foundation through Amazon

Support Glaucoma Service Foundation.

When you shop at smile.amazon.com,
Amazon donates.

[Go to smile.amazon.com](http://smile.amazon.com)

amazon
smile

Please support the Glaucoma Service Foundation to Prevent Blindness by using this link for all Amazon purchases as .5% of eligible purchases will support our Foundation.

We are excited that we set up a new fundraising initiative called AmazonSmile. Amazon may be an online source that you already use for purchases. All purchases that you make on Amazon, .5% of those eligible purchases will support the Foundation. You must go to the following on the internet, <http://smile.amazon.com/ch/23-2106693> to set this up on your Amazon account. After you set this up on Amazon, the AmazonSmile account will automatically be set-up so that the Foundation receives a small percentage of eligible purchases.



How to Help Your Doctor Help You: Patient and Doctor Education

By George L. Spaeth, MD

Two of the major reasons why some people are healthy and happy are because 1) they have good fortune and 2) they take good care of themselves. Of these two, probably good self-care is the more important, because in some ways good fortune is a type of good self-care. As Thomas Jefferson said, "I am a great believer in luck, and I find the harder I work the more I have of it."

Caring for one's self well requires wanting to learn facts, but even more importantly learning how to behave. No person can make any other person learn. Learning occurs when a person is open to learning. Teachers are professionals committed to help people learn. But while there are thousands of words written on "patient education," and while many of those words probably affect what patients actually know, few if any of those words have had any impact on how patients behave.

The word "doctor" literally means "teacher." A doctor, at least etymologically, is an educator. And while we have stressed the importance already of good "self-care and self-learning," for us to grow we all need coaches or critics to help us learn as much as we can. Education literally means "to lead forth," "to lead out." It does not mean to try to fill up with information or even to fill up with information.

The first prerequisite for learning is wanting to learn. Every living creature

of every kind has a built-in drive to want to learn. Good parents, good teachers, good doctors nourish that drive. One way to do that is to help the person develop methods of learning: critical, logical thinking, bias analysis, appropriate skepticism. Few patients, however, keep their doctors' appointments in order to learn how to evaluate data properly. Yet, I maintain, that helping patients learn that process is one of the most effective, enjoyable and encouraging aspects of being a physician, that is, a doctor. As with most types of learning, lectures or, worse, preaching, rarely works.

How can patients learn more from their doctors? The first tip, of course, is for the patients to want to learn. While this is an innate drive, learning means moving from where one is to a different position. Especially learning new behavior requires stopping old behaviors. This is not easy. Many patients like to have their "status quo" encouraged. Where they have to change, they prefer to be told, "Do this!" They eschew the concept of participating in their care or their learning process. Many like to see themselves as "compliant, good patients." "I do what my doctor tells me to do." Such an attitude is almost guaranteed to lead to health that is less than optimal. Health is an internally-generated phenomenon. It cannot be put on the top of a cake like icing and expected to turn a foul-tasting concoction into something delicious.

The second tip is to find a physician

interested in teaching, a person who wants to listen and to respond in a way designed to provide a meaningful answer, not to impress.

The third suggestion is to remember that doctors are busy, human, and probably like to have their egos nourished as much as any other group of people or persons. Thus, expecting doctors to spend time to teach is often unrealistic, unless one has the perspicacity and good fortune to find doctors who truly love to do that.

The fourth tip is to learn to be a good patient. That does not mean to be "compliant." Few patients seem to understand that their job is to be observant, skeptical and precise in reporting their observations about how they feel in accurate, full detail. What are their symptoms? What are their concerns? If they can express that accurately, they are far better to get good care. That, in fact, is their primary job. It is not to suggest diagnoses or treatments, though good doctors may welcome some suggestions. Admitted, the patients often will not provide such accurate, competent information unless the physician welcomes that type of behavior. Patients are well advised to seek out physicians that do that.

Things that help provide really good information:

- 1)** Bring in notes summarizing what has happened since your last visit or, if this is your first visit, information the doctor is likely to need to know.
- 2)** Really report your symptoms in detail, in great detail, being careful that you are truly accurate. For exam-



ple, do not say, “My vision is blurred.” Say (assuming this is accurate) something like, “When I get up in the morning it looks as though I am looking through dirty glasses for about 15 minutes, and then that lack of resolution gradually clears until everything becomes normal again.” That type of information gives the doctor a huge amount of help in coming to an accurate diagnosis.

3) Be specific and quantitative. Do not use words such as “little,” “much,” or “recently,” which really do not mean anything. For one person “recently” may be an hour ago, or for others perhaps two years ago. Use words which mean exactly what they say. Be quantitative and specific.

4) Welcome probing questions from your physician. When you do not get them, the physician is probably not listening.

5) Do not be offended if you seem to be challenged about what you are saying. Good physicians will want to clarify and to make sure they really understand exactly what is being described.

6) Get information from whatever source you can, such as the internet, but be skeptical about the validity of that information. Much of the stuff on the internet is really just that – stuff – and not to be believed.

7) Remember, doctors know they also need to learn new, more correct things. If you can help your doctors learn, they will be grateful and all people will get better care.

8) Do not ask the doctor if he or

she understands what you said, but rather WHAT he or she understands.

9) Finally, take responsibility for educating yourself. That is the most important step. If your doctors are not providing information you think they should, ask them why they are not. Do that respectfully so you do not alienate them. If they respond positively, you may actually educate your doctor, which is something many doctors need. Not only will that education help you, but it will help the other patients as well.

One of the important ways doctors educate patients is the way doctors act! Patients believe that what doctors believe is important. If physicians make a big fuss about their patient’s intraocular pressure, the patients believe their intraocular pressure is important. If the doctor says, “Everything looks fine; your intraocular pressure is 14,” the patient will think that he/she is fine, and that the pressure really is 14, and that it can be measured precisely. The patient will think he/she is fine because the pressure is actually 14. Of course the truth of the matter is that the person measuring the pressure does not really know the pressure is 14, and, secondly, it is a rare situation (if it ever occurs) in which just knowing the intraocular pressure is enough to lead to a comment such as, “Everything is fine.” If on the other hand the physician says something like, “Your pressure today is somewhere around 14 and that is a significant improvement since the last visit when it was 24,” the patient will learn that there are subjective components to every measurement, even something as apparently

simple as intraocular pressure, and that determining whether somebody is “fine” or not cannot be made just on the basis of an approximation of the intraocular pressure.

Doctors like to feel in control. Doctors do not like uncertainty. Patients want to believe their doctor is in control and that their doctor is certain what to do. But, as Voltaire said, “Doubt is uncomfortable, certainty is ridiculous.” Patients deserve to know that their doctor has a clear plan as to what needs to be done, but also that almost everything in the medical world is “grey.” Rarely is the situation clearly and definitively black or white!

Effective education of patients has to be directed towards a particular patient who has particular characteristics so that particular individual can be led forth and can be helped to learn how to learn and how to take care of himself better. Some, like the proverbial mule, need to be hit with a two by four in order to get their attention. Some need to be nudged ever so gently. All need to have the most critical aspect of good education, specifically, a sense of being profoundly respected. They will know that if indeed they are profoundly respected.

Every patient and every doctor is unique. So the patient-doctor relationship is always unique. But almost all doctors truly want to help. If patients learn how to relate to their doctors so as to help their doctors help them as much as possible, everybody is healthier and happier, both the doctors and the patients. ■



“CHAT HIGHLIGHTS” OF THE GLAUCOMA SERVICE WEBSITE

Lasers for Glaucoma.”

October 1, 2014

Guest Speaker – Dr. Anand Mantravadi
Lorraine Miller – Editor, Chat Topic Researcher

Moderator: Welcome, Dr. Mantravadi. Lasers are used in the treatment of glaucoma. Laser trabeculoplasty (LTP), laser peripheral iridotomy (LPI), and cyclophotocoagulation (CPC) are three procedures that use a laser. Other uses of a laser in glaucoma are laser peripheral iridoplasty and suture lysis after a trabeculectomy.

P: Are there any other uses of lasers in glaucoma?

Dr. Mantravadi: We also use a laser for capsulotomy or opening the capsule following some cataract surgeries. The laser is commonly used for this procedure.

P: What laser options are available and how is the decision made as to which laser should be used in a trabeculoplasty?

Dr. Mantravadi: Trabeculoplasty comes in a few forms as an argon laser trabeculoplasty and a selective laser trabeculoplasty. Both have similar outcomes and intraocular eye pressure (IOP) lowering effects. The thermal changes on a microscopic scale are more with an argon laser. Both modalities are effective. I would say that selective laser trabeculoplasty is more common these days.

P: Does the physician have a variety of laser powers and length of time of each blast at his discretion or is a set of parameters programmed into the machine?

Dr. Mantravadi: Selective laser trabeculoplasty parameters are fairly standard.

P: What indications should be present to justify a trabeculoplasty?

Dr. Mantravadi: Open angle glaucoma is present with a goal of lowering intraocular pressure.

P: What are the contraindications to performing a laser trabeculoplasty?

Dr. Mantravadi: Relative contraindications could include prior laser trabeculoplasty with historically little to no success in lowering the IOP. The absolute contraindications to the procedure are closed angle glaucomas.

P: Are there preoperative and postoperative treatments for a laser trabeculoplasty?

Dr. Mantravadi: Treatments are not really standardized and vary by practitioner. Some give a preoperative or postoperative IOP lowering drop at the time of the laser. After the laser procedure, some practitioners don't prescribe any additional medications except for continuing prior glaucoma medications if the patient was on them. Some physicians prescribe a topical anti-inflammatory drop like a steroid or a non-steroidal medication for a few days.

P: What is an ocular Goldmann three mirror lens and how is it used in the procedure?

Dr. Mantravadi: It is a prism lens that enables a view into the angle structures. This is a common lens used to apply the laser energy in the appropriate location.

P: Where on the eye are the burns from a laser trabeculoplasty? Are they placed in the same location for either laser used in the procedure?

Dr. Mantravadi: It is the same location used in both selective laser and argon laser trabeculoplasties. The laser in selective laser does not really create any coagulative damage and placement occurs on the pigmented trabecular meshwork in the angle of the eye.

P: What are the possible complications caused by the procedure?



“CHAT HIGHLIGHTS” OF THE GLAUCOMA SERVICE WEBSITE

Lasers for Glaucoma.”

Dr. Mantravadi: The selective laser could cause a pressure spike and post-laser inflammation could occur. The complications from an argon laser could also be a pressure spike, inflammation, and possible scarring in the angle.

P: What is a selective laser trabeculoplasty? What factors make procedures done by this less painful compared to other modalities?

Dr. Mantravadi: Selective laser is a low energy laser that is thought to be taken up by cells in the trabecular meshwork. Perhaps less energy used is the basis for less ocular discomfort during the procedure. Having done this routinely, I would say it is rare that patients feel any discomfort outside of the contact lens during the brief time of laser application.

P: What are the factors that favor a positive response from a trabeculoplasty?

Dr. Mantravadi: There is some evidence that suggests a pre-laser IOP in the mid 20s has a more pressure lowering effect than a lower pre-laser IOP. A 360-degree treatment seems to achieve a better pressure lowering effect than 180-degrees. The decision to treat 180-degrees or 360-degrees rests entirely with your ophthalmologist. There is a slightly greater risk of pressure spike with a 360-degree treatment. Therefore, if someone has very tenuous pressure control and is already on maximal medical therapy, a 180-degree treatment maybe a safer route and more preferable.

P: What is the pathophysiology of a laser trabeculoplasty?

Dr. Mantravadi: With a SLT, uptake by the cells in the meshwork that stimulates some inflammatory or immunomodulatory cascade enables cells to clear potential debris that is affecting trabecular outflow. With ALT, there are many theories some including thermal contraction which enables the mechanical opening of

the trabecular beams.

P: What lasers are used with a laser peripheral iridotomy? Are the same settings used as with a trabeculoplasty?

Dr. Mantravadi: The settings for a laser peripheral iridotomy are not the same settings as used with a trabeculoplasty.

P: When is a laser peripheral iridotomy (LPI) performed?

Dr. Mantravadi: A laser peripheral iridotomy is performed in any case that presents an anatomically narrow angle in a Gonioscopy exam. A Gonioscopy is a prismatic view into the angle structures by an ophthalmologist. An indication for a LPI includes acute or chronic angle closure with scarring evident in the angle. LPI may be needed to prevent issues that come up with retinal procedures such as silicone oil instillation or intraocular lens procedures. YAG and Argon are two commonly employed lasers.

P: What would indicate the need for a prophylactic laser iridotomy?

Dr. Mantravadi: Indications for an iridotomy would be an anatomically narrow angle, chronic or acute angle closure, prophylaxis for some other ocular conditions requiring an iridotomy such as silicone oil instillation, an intraocular lens complex or anterior chamber lens.

P: Are the preoperative and postoperative treatments the same for a LPI as for a laser trabeculoplasty?

Dr. Mantravadi: With a laser iridotomy, many more patients use topical steroids for a few days.

P: Is a Goldmann lens also used for this procedure?

(continued on next page)



"CHAT HIGHLIGHTS" OF THE GLAUCOMA SERVICE WEBSITE

(continued from previous page)

Dr. Mantravadi: No, an iridotomy lens is used. It has a few names depending on who designed it.

P: What are the complications with a laser peripheral iridotomy?

Dr. Mantravadi: The risks always are outweighed by the benefits with this procedure. We see and treat the complications of angle closure glaucoma which can be devastating to the eye. In a conversation of risks and benefits with the patient, it is very important to keep that clear. Uncommon risks of an iridotomy might include limited bleeding, a pressure spike immediately after the procedure, and a very rare incidence of optical line or shadows.

P: What lasers are used with a cyclophotocoagulation?

Dr. Mantravadi: Cyclophotocoagulation typically uses a diode laser.

P: Why would a patient need cyclophotocoagulation?

Dr. Mantravadi: This procedure is usually reserved for complicated glaucomas not amenable to other surgical modalities. The laser thermally impacts the ciliary body's ability to make aqueous humor by "turning down the faucet" if the drains are not working internally in the eye, thereby, lowering eye pressure.

Q: What procedures are done to prep the patient before cyclophotocoagulation? What postoperative procedures are prescribed and need to be followed by the patient?

Dr. Mantravadi: This is usually done because other modalities are not successful so the laser is performed. The procedure is done in an office setting or sometimes in the operating room depending on the surgeon, the facility, and the urgency. Post-operatively, the same glaucoma medications that were used prior to the procedure are used until the desired response is achieved. In addition, cycloplegia (definition: paralysis of the ciliary muscle of the eye), and anti-inflammatory medications

are used. We use a probe applicator to the external surface of the eye.

P: What procedures to prep the patient are done before cyclophotocoagulation?

Dr. Mantravadi: Some physicians use a numbing agent administered behind the eye and others do not. The decision depends on the surgeon, setting, and risk factors.

P: What are possible complications of cyclophotocoagulation?

Dr. Mantravadi: Complications include an inflammatory response, pressures that are too low, a lack of response, and bleeding.

P: What are the long-term side effects following a cyclophotocoagulation procedure?

Dr. Mantravadi: Long term side effects are uncommon but can include too low of an intraocular pressure or vision loss. This can be a very effective modality.

P: What postoperative procedures are prescribed and need to be followed by the patient?

Dr. Mantravadi: The same glaucoma medications are prescribed prior to the procedure. Following the instructions of the treating physician is imperative as they are titrated, modified, or changed based on the response to the laser.

P: When are some of the indicators that determine that a SLT would need to be repeated? If so, when is a decision made about a more invasive procedure?

Dr. Mantravadi: Repeating an SLT is a good option if there was a historically positive response the first time around. An invasive procedure is indicated if the likelihood of achieving the goal pressure for the individual is low with a repeat laser.

(continued on back page)



"CHAT HIGHLIGHTS" OF THE GLAUCOMA SERVICE WEBSITE

(continued from previous page)

P: After any of the laser procedures, would other ocular surface disorders such as dry eye, make visual rehabilitation more difficult?

Dr. Mantravadi: If people have severe ocular surface problems, they will be prone to issues when anything irritates the surface of the eye. A contact lens used for lasers is commonly employed, tolerated by most, but a few may have issues if they have underlying ocular surface problems. There are precautions that can be taken before or after the laser to mitigate these issues.

P: Which laser is used in performing a laser peripheral iridoplasty?

Dr. Mantravadi: Typically, an argon laser is used for an LPI.

P: Could a laser iridotomy affect corneal function?

Dr. Mantravadi: Yes, it is possible, but rare.

P: Data from the Argon Laser Trabeculoplasty (ALT) studies show that the probability of a positive response is greater at the age of sixty and above. Has it been proven that it is true for the Selective Laser Trabeculoplasty (SLT) as well?

Dr. Mantravadi: Many of the patients enrolled in the studies involving SLT are from an older population. I don't believe a direct comparison with two age groups has been performed when controlled for other variables with SLT. SLT can be performed in younger individuals but clearly the younger patients are more likely to see their results dissipate with time.

P: Why aren't ALTs or SLTs performed after a trabeculectomy as the pressure increases over time in some patients?

Dr. Mantravadi: There is no dogmatic evidence to the contrary if a laser has not been attempted prior to filtering surgery. However, most all laser data originates in patients who have not had filtering surgery.

P: What are some of the latest advances in lasers used in glaucoma?

Dr. Mantravadi: Endoscopic application of energy to the ciliary body is a more recent option. SLT has been a great option and we are learning more about it in terms of efficacy when used earlier in treatment algorithms.

P: How is an LPI different from a peripheral iridectomy?

Dr. Mantravadi: Both procedures achieve the same thing. LPI is with a laser while an iridectomy is an incisional surgery.

P: Could an LPI be performed after complications with cataract and other procedures?

Dr. Mantravadi: Yes, an LPI can be performed after other procedures.

P: Is success from incisional surgery lessened if an ALT or SLT has been performed prior to the surgery?

Dr. Mantravadi: No, ALT or SLT do not affect the success of an incisional surgery.

P: Are there certain races or demographic groups that tend to respond better to an SLT procedure?

Dr. Mantravadi: There is some evidence that SLTs highly successful results are independent of race.

P: Micropulse laser trabeculoplasty (MLT) using a diode laser has been around for almost a decade. Are there benefits to this laser over the others?

Dr. Mantravadi: Evidence thus far seems to suggest that the IOP lowering effect is similar to SLT and ALT.

P: What is a laser goniopuncture?

(continued on back page)



GLAUCOMA SERVICE
FOUNDATION TO PREVENT
BLINDNESS

Editor: Rita Stern
Rita@mrs-stern.com

840 Walnut Street
Philadelphia, PA 19107-5109
215-928-3190
www.willsglaucoma.org

Printing and distribution of the Searchlight are made possible through generous contributions of our donors.

"CHAT HIGHLIGHTS" OF THE GLAUCOMA SERVICE WEBSITE

(continued from page 11)

Dr. Mantravadi: Laser goniopuncture is laser energy used to make an opening. It can be done after a trabeculectomy if the internal opening occluded for some reason. It can also be done after a canaloplasty if the goal is to create an internal opening.

P: How does a titanium sapphire laser trabeculoplasty differ from the SLT?

Dr. Mantravadi: There is greater tissue penetration with the titanium sapphire laser trabeculoplasty. It is comparable to an ALT. It is too early to tell with the available data.

Moderator: Thank you, Dr. Mantravadi, for a very informative chat! We very much appreciate your time. ■

GLAUCOMA SERVICE STAFF AT WILLS EYE HOSPITAL

Mary Jude Cox, MD
Elizabeth Dale, MD
Scott Fudenberg, MD
L. Jay Katz, MD
Anand Mantravadi, MD
Marlene R. Moster, MD
Jonathan S. Myers, MD
Rachel Niknam, MD
Jody Piltz-Seymour, MD
Michael J. Pro, MD
Jesse Richman, MD
Courtland Schmidt, MD
Geoffrey Schwartz, MD
George L. Spaeth, MD
Monisha Vora, MD
Rebecca Walker, MD

*Please support the Glaucoma Service Foundation by
making a donation today in the enclosed envelope*