

## Doctors Eye New Approaches to Treating Glaucoma

As promising new surgical procedures become available, eye surgeons today are beginning to take a fresh look at the challenge of controlling glaucoma — the insidious eye disease that can damage the optic nerve and lead to vision loss and even blindness.

One such surgical option is canaloplasty, which is being shown safe and effective and can be offered earlier in the disease process than conventional glaucoma surgery. For many patients, it can replace the need for eyedrops and/or laser treatment, the standard early and mid-stage glaucoma treatments. Canaloplasty carries with it less risk than trabeculectomy, the conventional glaucoma surgery that is usually reserved for the advanced stages of the disease.

“This is a new way of looking at glaucoma surgery,” says Dr. Lee Wan, Coastal Eye’s Medical Director. Dr. Wan has begun to offer canaloplasty to selected patients.

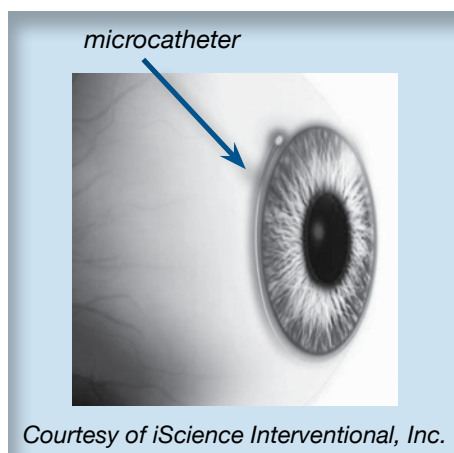
### ‘The Sneak Thief of Sight’

Often called “the sneak thief of sight,” glaucoma is a leading cause of blindness. The most common type of the disease, called primary open-angle glaucoma, has no noticeable signs or symptoms in its beginning or even mid-stages. Early diagnosis and treatment are essential to minimize or prevent optic nerve damage and consequent vision loss.

For reasons that are not completely understood, increased pressure within the eye (intraocular pressure or IOP) is usually associated with the optic nerve damage — and vision loss — of glaucoma. The pressure comes

from a buildup of aqueous humor, a fluid naturally produced in the front of

the eye to nourish the tissues. The fluid normally exits the eye through a drainage system. When the drainage system does not work properly, the pressure builds up within the eye and is associated with damage to the optic nerve. So in most glaucoma treatment — including eyedrops, laser and glaucoma surgery — the basic objective is to reduce the pressure within the eye by improving drainage of the fluid. Traditional glaucoma surgery, which involves creating a drain either with a tube or a procedure known as a trabeculectomy, bypasses the normal faulty drainage system to keep the IOP down.



### How and Why Canaloplasty Works

With canaloplasty, the surgeon stretches open the eye’s natural drainage canal, which runs around the edge of the cornea. This is where the fluid normally seeps out and is absorbed by the body. Doctors believe that in glaucoma, there is some blockage in this system.

The drainage canal is very tiny, around the size of a hair. The surgeon inserts a tiny catheter into the canal to dilate it and stretch it open. The catheter is then removed and a thin suture is placed to keep the canal stretched open.

With the eye’s natural drainage system opened, the pressure inside the eye is usually lowered. Canaloplasty has helped many glaucoma patients reduce their intraocular pressure and dependence on medications.

“We tell patients that this is almost like angioplasty for the heart,” says Dr. Wan. “If you have a blockage in your heart vessel, they catheterize it and put a stent in there to keep it open. That’s what this is, except that we use a tiny suture to keep the canal open after it’s

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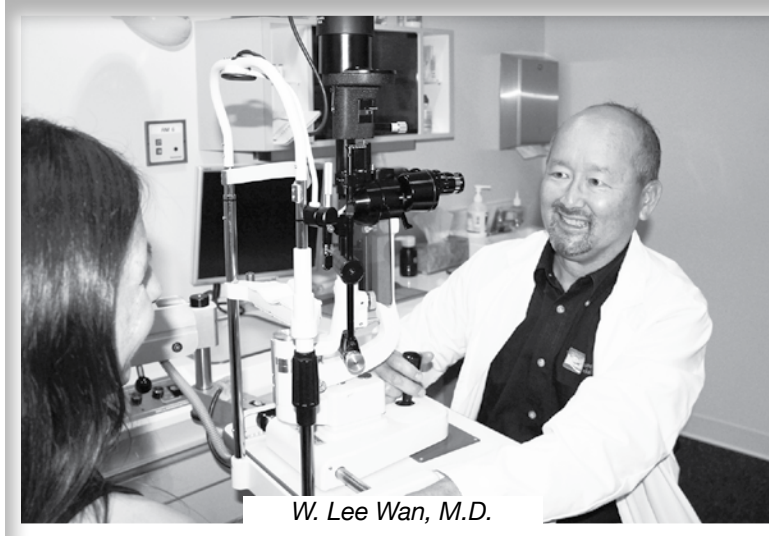
## NEW APPROACHES (continued from first page)

stretched by the catheter. We think this is safer, just as angioplasty is safer than open heart bypass surgery where a new vessel has to be grafted to bypass the blocked vessel.”

### When the Procedure Might be Recommended

Eyedrops have been the gold standard in glaucoma treatment for generations. They remain safe and effective for many patients. But eyedrops are not perfect, Dr. Wan points out. Eyedrops are expensive. They can be inconvenient or difficult for patients to use regularly, especially when multiple drops and complex regimens are required. They tend to irritate the eyes. Doctors are not even sure sometimes that the drops are doing their job consistently around the clock. In addition, several studies have found that a significant minority of patients don't take the drops as prescribed.

“What's changing now is that we're starting to think of these newer procedures such as canaloplasty as something we could do in place of eyedrops rather than waiting



W. Lee Wan, M.D.

for someone who has completely failed with all the glaucoma drops,” says Dr. Wan.

Whether an individual patient is a candidate for canaloplasty depends on a number of issues that must be considered, including personal risk factors, stage and progression of the disease including condition of the optic nerve, etc. As with any surgical procedure,

benefits must be weighed against risks.

Dr. Wan says some patients with elevated eye pressure show no evidence of damage to the optic nerve and are best treated non-aggressively with one or two drops. They may do fine with that regimen. “So I wouldn't necessarily recommend surgery to those patients. But for the patient who is showing signs of damage to the optic nerve and is getting worse, we may offer canaloplasty relatively early on in the process rather keeping surgery as a last resort only, as we used to do with the more invasive traditional procedures.”



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# A Hazard of the Elements and How It Can Be Addressed

Outdoor workers and recreation and sports enthusiasts in Ventura County know all too well how bright sunshine, and dry, dusty, windy conditions can irritate the eyes.

These forces of nature are also implicated in the development of a very common eye condition in this area — pterygium.

A pterygium is a non-cancerous overgrowth of the clear, thin tissue that covers over the white part of the eye, called the conjunctiva. Usually, a pterygium by itself is not vision-threatening. But if it grows too large it can create astigmatism, distort the vision and even block the vision if it encroaches too far across on the cornea. A pterygium usually begins in the corner of the eye closest to the nose and grows toward the center of the eye.

Pterygia are twice as likely to occur in men than women. The growths tend to show up more frequently in certain ethnic populations such as Hispanics, Filipinos, and Japanese, but they can and do occur in anyone. People who are outdoors in the sun a lot, such as surfers and farmworkers, are at high risk. Usually, the first symptoms that prompt a visit to the eye doctor are persistently red, irritated, itchy, swollen eyes.

Some cases will respond to treatment with artificial tears, and sometimes the prescription drop Restasis®, to improve the lubrication of the eye. Dry eyes are a major contributor to pterygia. Patients are advised to wear wide-brimmed hats or caps and sunglasses outdoors and to protect their eyes as much as possible from exposure to irritants such as ultraviolet light, wind, smoke or chemicals.

Medical treatment can often alleviate the symptoms from a pterygium, but does not get rid of the growth. If the patient does not respond to medical treatment, and the growth becomes too aggressive and bothersome, surgical removal is a very effective option.

## Surgical Removal of Pterygia

Dr. Lee Wan, Medical Director at Coastal Eye, fre-

quently performs surgery to remove pterygia. Done in an outpatient surgery center, the procedure basically involves peeling the growth off the eye. He also has to remove some of the surrounding inflamed tissue and scar that contributes to the growth.


However, with removal alone, there is a high likelihood that the pterygium will grow back. In fact, in his patient population, Dr. Wan estimates the recurrence rate with simple excision approaches 50 percent. That's because there is nothing there to keep the pterygium from growing back into the same area.

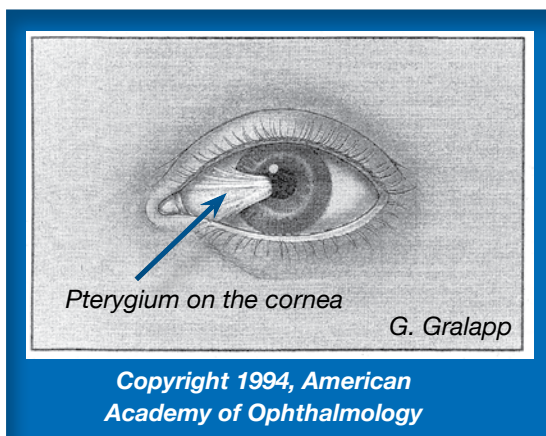
To prevent regrowth of the pterygium, Dr. Wan places a graft over the white of the eye from which the pterygium was removed.

In most cases, this is an autograft, meaning that the graft tissue comes from healthy conjunctiva from underneath the patient's own eyelid, which is healthy tissue that is normally protected by the eyelid from the elements.

In some cases, the graft is performed using amniotic membrane. This is typically done for patients who perhaps do not have good tissue of their own to harvest, or if there is another medical reason to avoid using an autograft. This amniotic membrane is healthy donor tissue from a placenta — very thin, clear, non-inflammatory, and quick to heal, much like the conjunctiva itself.

Grafts enable the eye to heal faster and reduce the risk of recurrence. In addition, the surgery can be done using a tissue glue rather than sutures to hold the graft in place while it is healing. "The combination of a graft along with tissue glue and sutureless surgery makes the healing much more comfortable and quick. Usually the patient is back to normal activities in a week or so," says Dr. Wan.

He estimates that the use of grafts and glue reduces the chance of recurrence to about 5 percent. "Some of the pterygia will grow back no matter what, but the majority won't," he says, "especially if the patients protect their eyes and don't keep doing what they were doing before that made the pterygium develop in the first place. Protection from the sun, wind, and dryness is critical." 





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## Meet Stephanie and Cheyanne, Our Newest Team Members

Coastal Eye recently welcomed Stephanie Martinez and Cheyanne Anderson to the staff. “We’re ecstatic about having them on board,” said Lisa Lopez, Administrator.



Stephanie Martinez

As an ophthalmic technician, **Stephanie** works up patients, scribes and assists the doctors, performs diagnostic testing and handles other back office duties.

Born and reared in Ventura County, Stephanie has worked in the medical field for 14 years, and in ophthalmology at other local practices for eight. She is a CNA and is currently working on attaining her COA (Certified Ophthalmic Assistant) designation.

“I enjoy coming to work,” says Stephanie. “It’s a good fit for me here. I am impressed with the entire staff and the way they really care about the patients.”

Everyone here works for the patient and does their best to be as helpful as possible. It shows.”

Also a Ventura County native, **Cheyanne** is a willing and enthusiastic jack-of-all-trades with Coastal Eye’s business office. She spends most of her time in the billing department, but also serves as a patient representative at the reception desk.



Cheyanne Anderson

Cheyanne studied sociology and gender studies at Cal Lutheran and worked for several nonprofit organizations before joining Coastal Eye.

She says she is very proud to be part of the process of delivering patient care. “I’m definitely a people person and really enjoy patient interaction,” she says. “And I like working with the rest of the staff.”



*Notice: Coastal Eye Specialists distributes this newsletter to educate our patients about eye health and care, and the services we provide. It is normally mailed to patients who have had a recent appointment in our office. If you wish to be added to or removed from our mailing list, or receive a copy of our Notice of Privacy Practices, please call (805) 983-0700 or send an e-mail to [info@coastaleye.net](mailto:info@coastaleye.net).*