

Until a couple of years ago, says Anthony Elvas, the only vision correction he required was reading glasses. Then he began experiencing problems with his right eye.

"I started looking for a good ophthalmologist, but I wasn't happy at all with the first few practices I tried," remembers the active Coast Guard Auxiliary volunteer. "Then I scheduled an examination with Dr. Katz."

Adam M. Katz, MD, is board certified by the American Board of Ophthalmology and dual fellowship trained in retina care. He practices with the Center for Advanced Eye Care in Vero Beach, a group that focuses a lot of attention on educating their patients.

"Dr. Katz was very friendly and extremely informative," describes Anthony. "I explained to him that I was having problems with my eyesight, and after examining me, he found that I had macular degeneration."

Macular degeneration

"Approximately twenty million individuals in the US suffer with age-related macular degeneration, or AMD," educates Dr. Katz, "and almost two million patients have the advanced form of the disease, referred to as *wet macular degeneration*. Macular degeneration, if not treated, may cause a loss of central vision and is the leading cause of legal blindness in Caucasians over the age of sixty-five."

Macular degeneration is a degenerative process that affects the *macula*, explains the doctor: "The macula is the central area of the retina, the tissue that lines the back wall of the eye and functions much like film in a camera, recording images and transmitting them to the optic nerve for 'processing' by the brain."

When the retinal tissue in the macula degenerates, patients may notice that straight lines in the landscape – such as telephone poles, the sides of buildings, or streetlight posts – appear wavy, crooked, or distorted. They may also notice a need for brighter light when reading or a gradual loss of color intensity. Tasks such as reading, driving, watching television or a computer screen, or writing checks become difficult.

Wet and dry macular degeneration

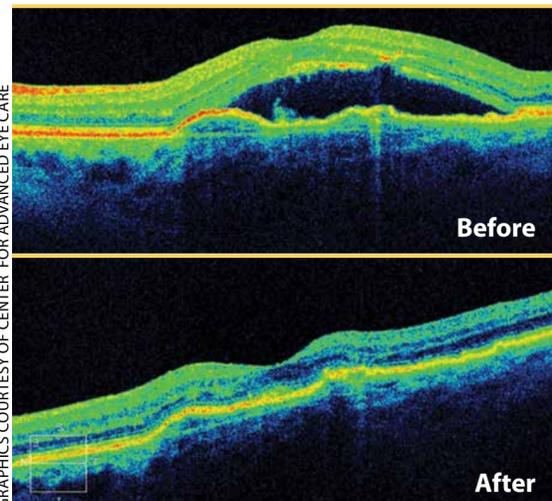
"There are specific likenesses and differences between wet and dry macular degeneration," observes Dr. Katz. "The dry type involves the loss of cells in the macula, as well as pigmentary-type changes.

"One way to look at it is like cracks in a sidewalk. In the dry type, loss of cells is forming these cracks. Dry macular degeneration accounts for up to ninety percent of cases and involves the deterioration of the macula over time. There is not a treatment or surgical procedure to restore vision loss after it is damaged. However, its progression can be slowed with powerful doses of vitamins A, C, E, zinc, and copper. In a large study called the AREDS, which stands for Age-Related Eye Disease Study, there was a twenty-five percent reduction in the progression from the dry form to the wet form."

Everyone who has dry macular degeneration is at risk for developing wet macular degeneration, and everyone who has the wet form had the dry form at one time, points out the doctor.

Wet macular degeneration develops when abnormal blood vessels form behind the retina and begin to leak and bleed. Eventually, they develop scar tissue that can permanently damage the retina.

Dr. Katz refers back to his analogy: "You can think of the growth of abnormal blood vessels like weeds growing up through the sidewalk cracks.



OCT test shows a before and after cross-sectional view of the macula, demonstrating the dramatic difference that injections can produce in macular degeneration patients' vision.

FDA Approves New AMD Treatment

There is now a new option called Eylea available for treating the wet form of macular degeneration.



Anthony Elvas

PHCN FILE PHOTO



WILLIAM J. MALLON, MD
J. MICHAEL SCHNELL, MD
ADAM M. KATZ, MD

"While comprising as few as ten percent of cases, if left untreated, wet macular degeneration poses an immediate and dramatic threat to central vision."

Dr. Katz diagnosed Anthony with wet macular degeneration.

Avastin and Lucentis

According to Dr. Katz, before the development of drugs like Avastin and Lucentis, which are both endothelial growth factor-type drugs and both manufactured by Genetech, there were no treatments available that would increase patients' vision. Fortunately, both of these drugs have been shown to not only dry up the fluid in the eye, but also to improve vision.

The problem with Lucentis is that it is very expensive, at two thousand dollars (\$2000) per vial of medication, as opposed to Avastin, which costs less than fifty dollars (\$50) a vial. Both require multiple injections.

In late April 2011, the National Eye Institute, a part of the National Institutes of Health, released the first-year results of their CAT study comparing the two drugs for safety and efficacy. They showed equivalency between Avastin and Lucentis.

"Although Avastin has not been FDA approved for eye diseases, most of what we do in ophthalmology is what is called *off-label use*," assures Dr. Katz. "Avastin is now used to treat over twenty eye conditions. I have given over two thousand injections and patients have been very pleased with the results.

"Avastin is administered by an injection into the back of the eye," he continues. "Of course, the eye is numbed with a topical drop before the injection, both of which are very well tolerated by patients.

"The injection itself takes less than five minutes. I don't think I've had a single patient complain about it.

"The recommended treatment schedule for these

injections is every four weeks," observes Dr. Katz, "although, according to the CAT study, Lucentis does not work any better given every month than it does on an as-needed basis, which is the protocol I use. I follow my patients on a regular schedule with an Optical Coherence Tomography, or OCT test [see graphs below]. My typical patient will get between four and seven injections per year, and they all come back for their next treatments."

Dr. Katz says he has been treating Anthony with Avastin, and that his results have been very satisfactory. However, he notes, Anthony has been requiring many injections per year.

New treatment

According to Dr. Katz, there is a new, third injection option for treating wet macular degeneration: "The FDA has recently approved a drug called Eylea, which is manufactured by Regeneron. Eylea has been shown to be equal to Lucentis for safety and efficacy. However, what separates Eylea from Avastin and Lucentis is that, after the initial three-month period of injections, it can be administered every eight weeks rather than every four.

"Therefore, following the initial three treatments, Eylea should last twice as long for Anthony," says Dr. Katz, "which is good because the goal is for patients to require as few injections as possible. I have started treating Anthony with Eylea."

Dr. Katz explains that his protocol treatment for new patients is to begin them on Avastin, and then, based on the frequency of injections required, perhaps move them over to Eylea.

"I've done very well," reports Anthony. "I see fairly well with my right eye, and there has been no further deterioration.

"As for the practice, I've never been to a friendlier office. They feel like a part of my family." PHCN



William J. Mallon, MD, is board certified by the prestigious American Board of Ophthalmology. After receiving his undergraduate degree from Michigan State University, East Lansing, he was awarded his medical degree from Wayne State University, Detroit. Dr. Mallon served his internship at Methodist Hospital, Memphis, TN, and completed his residency at the University of Tennessee in Memphis, followed by a fellowship in ophthalmic plastic & reconstructive surgery in Memphis. He is a member of numerous professional organizations, including the American Academy of Ophthalmology and the American Society of Cataract & Refractive Surgery, and is president of the board of the Florida Society of Ophthalmology.



J. Michael Schnell, MD, is board certified by the prestigious American Board of Ophthalmology. After receiving his undergraduate degree from Dickinson College and a Master's degree in counseling from Colgate University, Dr. Schnell was awarded his medical degree from the University of Maryland, where he also served his medical internship and his residency in ophthalmology. He is a member of several professional organizations, including the International Association of Ocular Surgeons and the American Academy of Ophthalmology.



Adam M. Katz, MD, is board certified by the prestigious American Board of Ophthalmology. After receiving his undergraduate degree from Union College in New York, graduating summa cum laude and Phi Beta Kappa, he was awarded his medical degree from Albany Medical College, NY. Dr. Katz completed his internship in internal medicine at Lenox Hill Hospital in New York City. After completing a three-year residency in ophthalmology at Saint Vincent's Hospital, Manhattan, he went on to complete a one-year medical retina fellowship at NYU and a second two-year retina fellowship in Memphis with world-renowned retinal surgeon Steve Charles, MD. Dr. Katz has over ten years of clinical experience treating patients with retinal and vitreous disorders.

Seeing better

The caring staff at Center for Advanced Eye Care welcome your questions regarding ophthalmology and ophthalmic plastic and reconstructive surgery. To schedule an appointment, please contact Center for Advanced Eye Care, located at **3500 US Hwy. 1** in Vero Beach, at **(772) 299-1404**.

Dr. Mallon Continues to Serve as FSO President

After serving on its board for the past eight years, William J. Mallon, MD, a board-certified ophthalmologist and fellowship-trained ophthalmic plastic and reconstructive surgeon at the Center for Advanced Eye Care, was installed as president of the Florida Society of Ophthalmology (FSO), the preeminent statewide professional association for doctors who specialize in vision care, at its annual meeting held June 24-26, 2011. The FSO is a nonprofit medical society representing more than 500 physician members in the state.