ROSER PROSE
WRITING / EDITING / COACHING

WRITING SAMPLE

Publication: Austin American-Statesman
Publish date: April 17, 2015

Telescopic eye implant shows promise for patients losing their sight

By Mary Ann Roser

Coney Dorough's window on his world began to shut, bit by bit, about 17 years ago, when macular degeneration created a blind spot in the center of each eye. The blind spots grew, and Dorough was left with only peripheral vision.

Dorough, now 90, couldn't read without a print magnifying machine, watch football on TV or see the faces of his three adult daughters and other loved ones. Feeding and tending the three sheep and four donkeys in a pasture behind his house was getting harder. He risked losing his prized independence.

"I like to do it myself," Dorough, of Austin, said of caring for his animals, which include a dog and cat. "It makes me half mad that somebody would take over my job."

That feisty determination led Dorough, who said he got by at his homestead of 55 years "by feel, mainly," to a dramatic solution. Eleven months ago, he had surgery in Fort Worth where Dr. Aaleya Koreishi implanted a tiny telescope in his eye, a new tool for improving vision in people when the macula — the part of the retina responsible for central vision — deteriorates.

The eye telescope neither cures nor reverses macular degeneration. It is not a miracle device that can restore damaged eyes to normal sight. But with therapy, patience and practice, recipients like Dorough can learn to see differently — and better.

Eye experts anticipate telescope demand to grow as the population ages. Age-related macular degeneration affects more than 2 million older Americans. More than 14 percent of white Americans, the racial group at greatest risk of the disease, are affected at ages 80 and older, according to the National Eye Institute.

"I'd do it again," said Dorough, one of the few people in Austin to get the telescope. He still practices his "homework" from last year's occupational therapy sessions. But with the telescope in his right eye, Dorough can see faces, watch TV and read large print with just his reading glasses. He can pet and feed the animals in his pasture, even if he can't easily discern from a short distance which donkey is his favorite, Jake.

The Implantable Miniature Telescope developed by VisionCare Ophthalmic Technologies Inc., was approved by the Food and Drug Administration in 2010. It has been generating buzz as more specialists offer the surgery, including at least one in Austin. In October, the FDA lowered the age by 10 years, to 65, for people to become eligible for the device.

"I have eight people waiting for this surgery," said Dr. Gina Cottle of Austin. "I think we're going to start doing this more and more."

Cottle said she did the first telescope surgery in Austin in 2012 but ran into payment problems. Those were resolved, and she did a second surgery last month. Rather than wait, Dorough had the surgery in Fort Worth in May.

Cottle, Koreishi and other doctors explained the process: Patients are evaluated before surgery and must have end-stage macular degeneration with no cataract surgery in at least one eye. The eye must be stable so it is not leaking fluid or blood. The patient also must be committed to intensive therapy after surgery.

Once approved, a telescope about the size of a pea is surgically placed into the eye. The telescope is designed to work like a telephoto camera lens, magnifying images by more than two times. It projects images onto the healthy part of the retina, giving the impression of central vision by reducing the impact of the blind spot. The other eye still sees with peripheral vision.

Afterward, the patient has therapy to learn how to see with the telescope.

Dr. Mark Levitan, a retina specialist who has been treating Dorough since 2009, said that while Dorough has benefited, the telescope is not for everyone. Some people respond well to medication injected directly into the eyes. Others use hand-held magnifiers and other devices to help them see better. Still others want to try the surgery but not all are eligible.

"It's extremely common in my practice that more people ask for this surgery than are able to have it," Levitan said. "It is a very good option for some people … but the last thing we want to do is an invasive surgery on someone who is not going to benefit from it."

That is why the vetting process is so important, he and others said.

Dr. Abdhish R. Bhavsar, clinical spokesman for the American Academy of Ophthalmology, said he has heard of patients who have had a good experience with the telescope and of some who haven't.

"Some patients have a really hard time with it," said Bhavsar, a retina surgeon and director of clinical research at the Retina Center of Minnesota. "You can imagine how having a magnifier in front of you all the time would be."

But for those who learn to use it, the telescope is a "promising tool" and "an exciting way to use technology to help patients," he said.

Medicare covers the surgery, the costliest part of which is the $15,000 implant, Koreishi said.

She has done seven of the surgeries and has seen six patients improve; the seventh was too recent to measure results, Koreishi said. Like any eye surgery, there are risks, including bleeding, infection, retina detachment and loss of vision, she said.

Dorough had hoped for instant results, despite being told otherwise. Afterward, his vision was cloudy and his eye was swollen, which is normal.

He had 12 sessions over six months with Erik Hammer, senior occupational therapist and brain injury specialist at University Medical Center Brackenridge. "It's a lifelong commitment after the surgery," Hammer said. "You have to use it or you lose it."

Dorough "was exceptionally good about doing his homework," Hammer said. "Toward the end I would have tears in my eyes thinking, 'Wow, he couldn't do this before.'"

His middle daughter, Jan Manzanero of Jonestown, says her hope — "to help him stay independent" —was achieved.

Dorough would have it no other way. "When you get free," he said, "you want to stay free."