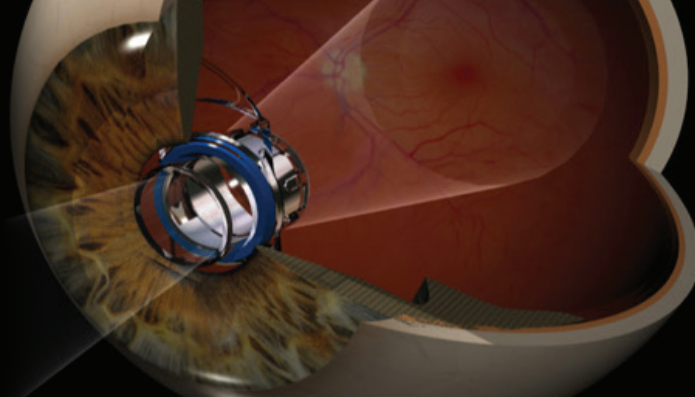


The Implantable Miniature Telescope

at UC Davis

by Jennifer Li, M.D.



Age-related macular degeneration (AMD) is a retinal disease that affects over 10 million people in the United States. As the leading cause of legal blindness in adults over the age of 60 in the United States, advanced AMD affects nearly 1.8 million Americans with 500,000 new cases diagnosed each year.

AMD affects the macula, the part of our retina that provides central vision. As macular degeneration progresses, it can lead to a decline in the ability to see fine detail and a loss of central vision in one or both eyes. For patients with advanced macular degeneration, this loss of central vision can have a significant impact on their ability to perform their daily activities, and, unfortunately, can lead to depression, increased accidents, and a diminished quality of life.

As AMD worsens, patients will frequently develop large areas of scarring in the macula and, until now, there have been no medical treatment options to offer these patients. In order to use the vision that remains in those eyes, patients will frequently rely on low vision devices such as magnifiers and telescopes. Unfortunately, these tools can be bulky and difficult to use for some patients.

The Implantable Miniature Telescope (IMT, VisionCare Ophthalmic Technologies, Saratoga, CA) is the first ever technology approved for end-stage AMD. It was FDA approved in July 2010 and the ophthalmologists at UC Davis will be among the first in the nation to begin implanting these devices in patients. The IMT is an intraocular lens, much like that which is used during cataract surgery, but instead of being a single lens, it incorporates two miniature mirrors to form a telescope that is surgically placed in the patient's eye. This design helps to magnify images 2-3 times their normal size. This larger image is then projected onto the retina for the eye to see.

Patient selection for the IMT is critical and there is an extensive screening process that the doctors at UC Davis have begun to implement for potential IMT candidates. Patients 75 years or older with stable, end-stage macular degeneration and scarring in the macula may be eligible. At this time, candidates cannot have had prior cataract surgery. Most importantly, both before and after surgery, patients will work closely with a low-vision specialist to ensure that they will be able to utilize the device fully.

Early studies on the IMT demonstrate a statistically significant improvement of vision in eyes with the implanted telescope compared to control eyes. Approximately 60% of patients were able to see three or more lines on the eye chart after surgery with the IMT than prior to surgery. These early results are very promising, and we are excited to have the opportunity at UC Davis to provide this new avenue of hope for our patients with end-stage AMD. We look forward to updating you on our progress in future editions of enVision magazine.

Eligibility criteria for the implantable telescope:

The patient:

1. Must be at least 75 years of age
2. Must have retinal findings of geographic atrophy or disciform scar with foveal involvement
3. Must have BCVA of 20/160 – 20/800
4. Must have evidence of a cataract in one eye
5. Must be willing to undergo pre-operative screening and post-operative training with a low vision therapist

For additional information on the IMT at UC Davis:

Patients can call a CentraSight Care Manager today at: 888-999-4134 between 8am and 6pm, Pacific Time. Alternatively, you may contact our CentraSight Coordinator at the Eye Center, Debbie Oppenheim at 916-734-6074.