

# Laser Treatment Does Not Prevent Vision Loss in Early AMD

**L**ow-intensity laser treatment, thought to be possibly beneficial in slowing or preventing vision loss among patients with age-related macular degeneration (AMD), is ineffective for preventing complications of AMD or loss of vision.

This was the major conclusion of the Complications of Age-Related Macular Degeneration Prevention Trial (CAPT), a study supported by the National Institutes of Health (NIH). The study appears in *Ophthalmology*.

"Laser treatment applied to eyes with large drusen that are at high risk for vision loss from AMD had neither a clinically significant beneficial nor harmful effect," said Stuart L. Fine, MD, professor of ophthalmology and director of the Scheie Eye Institute at the University of Pennsylvania and CAPT chairman. "There is no evidence from this trial to suggest that people with large drusen should seek preventive laser treatment."

Eyes with large drusen are at increased risk of progressing to advanced AMD, with accompanying loss of vision, according to an NIH news release. Laser treatment has been shown to reduce the extent of drusen, however, studies evaluating the impact of this treatment on vision have been small with inconsistent results.

CAPT assessed the safety and effectiveness of laser treatment in preventing vision loss among people with large drusen in both eyes. It found there was no difference in vision or in progression to advanced AMD between treated and untreated eyes.

The multicenter CAPT enrolled 1,052 patients with an average age of 71 years who had  $\geq 10$  large drusen and a

visual acuity of  $\geq 20/40$  in each eye. Each patient was treated in one eye and the other eye was observed for 5 years. At the end of the follow-up period, 20.5% of the treated eyes and 20.5% of the untreated eyes had lost three or more lines of visual acuity. Twenty percent of treated and untreated eyes progressed to advanced AMD, according to the findings. Change in visual acuity was strongly associated with the development of advanced AMD, but not with treatment group.

"At present, the only established way to decrease the risk of vision loss in people with large drusen is to take daily supplements of vitamins and minerals as used in the NEI-supported Age-Related Eye Disease Study (AREDS)," said National Eye Institute Director Paul A. Sieving, MD, PhD.

"This study found that high-dose antioxidant vitamins and minerals, taken by mouth by people at risk of developing advanced AMD, reduced the risk of progression to advanced AMD by 25% and the risk of moderate vision loss by 19%. People at risk for AMD are advised to not smoke and to maintain a healthy lifestyle, with a diet including leafy green vegetables and fish."

The NEI has launched a nationwide study to investigate if a modified combination of vitamins, minerals and fish oil can further slow the progression of vision loss from AMD. This new study, AREDS2, will build upon results from the earlier AREDS study. ■



Conni Bergmann Koury  
Editor-in-Chief