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# Could Light Therapy Treat Dry AMD?

*New study shows a non-invasive, painless laser can reduce risk of vision loss*

*Report from American Academy meeting in Chicago 2024*

“CHICAGO, III. — While anti-vascular endothelial growth factor (anti-VEGF) medications revolutionized treatment for people who have the wet form of age-related macular degeneration (AMD) those with dry AMD have few options to protect their sight from this devastating eye condition beyond dietary supplements and lifestyle changes. But a new study to be presented this week at AAO 2024, the 128th annual meeting of the American Academy of Ophthalmology., shows that a non-invasive therapy called photobiomodulation can reduce the risk of vision loss and slow worsening of the disease, potentially offering a new way to treat dry AMD.

"It's the first and only non-invasive treatment that appears to be helpful in improving vision and decreasing progression of dry AM; said lead investigator David S. Boyer, MD, of Retina-Vitreous Associates Medical Group. "It's promising news for patients who typically experience slow, progressive vision loss year after year."

Dr. Boyer said therapy could be used when patients notice visual symptoms, but if can be used in any patient with dry AMD to reduce disease progression.

Photobiomodulation therapy is not new. It has proven ability in a variety of musculoskeletal, neurological, and inflammatory conditions, and, more recently, in ophthalmic diseases, such as diabetic retinopathy and retinitis pigmentosa.

It's a painless, in-office treatment that uses different wavelengths of light to improve cellular function in the cells at the back of the eye called the retinal pigment epithelium to keep them healthy for longer. Photobiomodulation therapy may offer an opportunity for ophthalmologists to treat the condition at an earlier stage, before cell loss is irreversible.

The study enrolled 100 patients (148 eyes) with high-risk intermediate AMD. They were randomized to receive photobiomodulation or an active sham treatment. Treatment was administered three times a week for three weeks and repeated every four months.

After two years of treatment, 53 percent of treated patients had more than five letters improvement in best corrected visual acuity, while 18 percent of untreated patients lost more than five letters of vision. Treated patients also experienced a 73 percent reduction in new onset geographic atrophy, compared with a 24 percent incidence of disease progression in the untreated patients.

The U.S. Food and Drug Administration is expected to review and decide on the Biologics License Application for Photobiomodulation therapy in December 2024.

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