

Photodynamic Therapy for Age-Related Macular Degeneration

Age-related macular degeneration (AMD) is a deterioration or breakdown of the macula. The macula is a small area at the center of the retina in the back of the eye that allows us to see fine details clearly and perform activities such as reading and driving. In the wet form of AMD, abnormal blood vessels may grow in a layer beneath the retina, leaking fluid and blood and creating distortion or a large blind spot in the center of your vision.

Photodynamic therapy (PDT)--an outpatient procedure involving the use of a special light-activated drug--may be used to treat some patients with the wet form of AMD with fewer visual side effects than other treatments. The benefit of PDT is that it inhibits abnormal blood vessel leakage associated with wet macular degeneration, limiting damage to the overlying retina.

In PDT, the inactive form of the drug is usually injected into a vein in the arm, where it travels to and accumulates in abnormal blood vessels under the center of the macula. A special low-intensity laser light targeted at the retina activates the drug only in the affected area, damaging the abnormal blood vessels under the retina and leaving normal blood vessels intact.

Patients who are treated with PDT will become temporarily sensitive to bright light (photosensitive). Care should be taken to avoid exposure of skin or eyes to direct sunlight or bright indoor light for several days.

PDT therapy is not effective for treatment of the dry form of AMD, caused by aging and thinning of the tissues of the macula. While photodynamic therapy may preserve vision for many people, PDT may not stop vision loss in all patients. The abnormal blood vessels may regrow or begin to leak again. Every three months, a repeat examination including a fluorescein angiogram (a dye test) is required. Multiple PDT treatments may be necessary.