Photodynamic Therapy (PDT) Information

What is Photodynamic Therapy (PDT)?

Photodynamic therapy is a procedure performed in our office involving the use of a special light activated dye. The dye is injected into a vein in the arm slowly over a 10 minute period. The dye accumulates in abnormal blood vessels known as Choroidal Neovascularization (CNV). A special low intensity laser light is directed at the affected area for 83 seconds. This will cause a chemical reaction within the abnormal blood vessels, without causing damage to the normal retinal blood vessels.

What is Choroidal Neovascularization?

Choroidal Neovascularization or CNV is a disease process in which new vessels penetrate the barrier under the retina known as Bruch’s membrane. These new vessels leak fluid and may bleed causing disorganization of the photoreceptors in the retina. When this happens in the center of the macula, the area that is responsible for fine detailed vision including, reading and driving, vision is usually severely affected. The most common condition associated with this is age related macular degeneration or ARMD. When we see CNV in ARMD we call it wet ARMD. Other diseases that may demonstrate CNV include Presumed Ocular Histoplasmosis, Myopic Degeneration, Angioid Streaks, Juxtafoveal Telangiectasia, Choroidal Rupture, Central Serous Retinopathy and many more.
When can PDT be effective in treating macular degeneration?

PDT is effective in the treatment of wet macular degeneration when the abnormal blood vessel growth occurs directly underneath the pinpoint center of vision. PDT is not effective on the dry form of macular degeneration. PDT can be used also in other similar disease processes.

How successful is PDT?

The primary goal of PDT is to maintain your current vision. Repeat treatments are often necessary. The studies have shown that an average of 3 treatments are needed within the first year and 5.5 over 2 years. Multiple treatments may be necessary to maintain your current vision.

Precautions needed for PDT?

The dye is a light sensitive dye. You will need to avoid sunlight for 5 days. This includes direct sunlight outdoors as well as sunlight that may enter through your windows. Keep your blinds/curtains drawn closed. If you need to go outside, you should cover all exposed areas to sunlight. This would include wearing long sleeves, using a wide brim hat if available and covering your eyes with sunglasses. A severe sunburn may occur if these precautions are not followed. UV sunscreens are not effective in protecting against photosensitive reactions.