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By reading and following these instructions carefully, you will gain a better understanding of this patient's diagnosis and recommended treatment. It is indeed a pleasure to provide this reinforcement of our care.

COMMON MACULAR CONDITIONS

DRY AGE-RELATED MACULAR DEGENERATION

Age related macular degeneration (AMD) is a deterioration of the central vision area of the retina called the macula. The macula is responsible for our fine detailed vision. Although the exact cause of AMD is not known, it is thought to be accelerated by the aging process. The risk of developing macular degeneration increases with age, family history, vascular issues, active smokers, and sun exposure.

There are two forms of age related macular degeneration, a "wet" type, and a "dry" type. The "dry" type has a better prognosis. On average, this condition is slowly progressive and functional vision is maintained. Although there is no cure for dry macular degeneration, treatment is available. Nutritional supplements, protection from ultraviolet radiation, special medications, and laser treatment are all considerations depending on the degree of advancement of the condition. Monitoring change is imperative. Your condition must be closely monitored for possible advancement.

WET AGE RELATED MACULAR DEGENERATION

In the "wet" type, abnormal blood vessels grow in the macular region causing leakage, bleeding, and scarring. Although there is no cure for wet macular degeneration, new treatments have proven to be effective for some in slowing or stopping the progression of the disease.

Therapeutic injections, nutritional supplements, protection from ultraviolet radiation, special medications, and laser treatments are all considerations depending on the degree of advancement of the condition. This condition must be closely monitored for possible advancement.

MACULAR HOLE

A macular hole is a hole in the macula or center of the retina. The macula is responsible for your central vision and for your fine and detailed vision. A hole in this area causes moderate to significant loss of central vision but peripheral vision is not affected. These holes form secondary to trauma, after eye surgery, in highly nearsighted eyes, and often for unknown reasons. The main cause of macular holes is traction, or pulling on the macula, by adhesions between the retina and the vitreous (the gel substance that fills most of the back portion of the eye).

Surgical techniques are generally utilized to attempt to close the macular hole. Most of these techniques involve releasing the adhesions or areas of traction between the retina and the vitreous gel. The success of these procedures is largely dependent on how deep the hole is. Scanning laser ophthalmoscopes and a dye study called fluorescein angiography can be used to better predict if vision can be improved after surgery.

MACULAR PUCKER

A thin layer of tissue or membrane can develop in the area where the retina or nerve layer of the eye rests against the vitreous (the gel substance that fills most of the back cavity of the eye). This membrane can form small adhesions to the retina and pull on the sensitive retinal tissue causing it to wrinkle. This wrinkling can blur vision or cause distortions in the central vision. This condition is more common in nearsighted eyes, after trauma to the eye, and after ocular surgery.

The degree vision distortion varies. Most macular puckers do not progress and are mild. If

vision is more affected, surgery can be performed to remove the membrane and release the adhesions.

OPTICAL COHERENCE TOMOGRAPHY (OCT)

Recent developments in computer imaging technology allow us to easily and rapidly image the retina utilizing a three-dimensional cross-section. This revolutionary test allows us to better understand and view disease progression of the retina, macula, and optic nerve long before actual vision loss. This technology utilizes real-time information of the living eye, analogous to an in vivo histological section of retinal tissue. Images are viewed immediately and analyzed by comparing them to a database of normal outcomes of a patient's age. The image can be compared to an ultrasound, but instead of sound, the process utilizes reflected light and converts the layered image into varied identifiable colors. This technology allows us to more accurately follow disease progression, and has quickly become the standard of care for patients with documented cautions, strong family histories, or simply to monitor the effectiveness or timing of treatment.

DIGITAL RETINAL PHOTOGRAPHY

Digital retinal images can be instantly evaluated, and reviewed, with our patient's chair-side. This technology increases the quality of the retinal exam by allowing us to view almost the entire retina. This is helpful for detecting eye disease along with detecting and managing other medical conditions such as hypertension and diabetes.

Your images are stored permanently and used to compare with future images of your retina, in subsequent exams. Our office is pleased to provide our patients with this valuable level of care.

AMSLER GRID (Home Test)

The Amsler Grid is a simple test to evaluate potential problems of the macula. The test can be performed in the office and at home. An Amsler Grid is available for a free download on our website.

NUTRITIONAL THERAPY

We now know that all eyes require specific vitamins and minerals to maintain optimum eye health and function. The typical diet cannot always supply these vitamins and minerals in the right amounts. Current medical research suggests that patients diagnosed or at risk for retinal or macular degeneration may benefit from daily dietary supplements of mineral and "antioxidant" vitamins. These include lutein, zinc, selenium, vitamin A, Vitamin C, and Vitamin E.

Commercial products have been formulated in recent years that provide the recommended daily allowance of each suggested micronutrient. Each product has a recommended dosage, and it is generally advised to take these formulations with meals or as directed by your physician.

This eye care report is provided as an advanced level of service. If you have any questions or persistent visual/ocular symptoms after reading this report, please contact our office immediately. Thank you for allowing us to participate in your care.