OM SNAPSHOT

Ocular melanoma is an extremely rare cancer of the eye, occurring in 5 to 6 people per million. OM is different from skin (cutaneous) melanoma and there is little evidence it is caused by sun exposure. It is the second most common type of melanoma after skin melanoma, representing approximately 5% of all melanomas.

FAST FACTS

1. Around 2,000 new cases in the U.S. every year
2. Most common form of cancer in the adult eye
3. Very different from skin melanoma
4. Aggressive cancer often spreading to the liver
5. 50% chance of spreading (metastasizing)
6. No cure today for metastatic ocular melanoma

SUPPORTING PATIENTS & EYE CANCER RESEARCH UNTIL WE SEE A CURE.

"Let me applaud you and the entire team at OMF for the exemplary service and education you are providing patients and the community on ocular melanoma."
- Prithvi Mruthyunjaya, MD, Duke Eye Center

"The OMF (Eye Am Not Alone) retreat was inspiring and re-invigorating. I met a bunch of warriors who were creatively and self-assuredly taking their lives in their own hands and even having lots of fun at it, despite the serious subject. There was a lot of laughter there. The benevolent spirit was infectious."
- Peter (OM Patient)

GET INVOLVED
volunteer@ocularmelanoma.org

WHY OMF
A LIFELINE WHEN THERE WAS NONE

The Ocular Melanoma Foundation (OMF) was established in 2003 by Dr. Robert Allen, a renowned Virginia eye surgeon who was diagnosed with ocular melanoma and, in 2005, succumbed to the disease. Now the #1 online destination for OM information, OMF is dedicated to supporting patients, caregivers and cancer researchers.

Among its many educational and research initiatives, OMF created the world’s only Patient Forum dedicated to OM, hosts the annual Eye Am Not Alone (EANA) patient retreat series, launched the Travel Assistance Grant (TAG) program and, in 2013, established a $50,000 per year OM research grant in collaboration with the AACR.
**OM OVERVIEW**

Ocular melanoma, or OM, is melanoma of the eye. Often called uveal melanoma or simply eye cancer, it is the most common form of cancer in the adult eye.

There are approximately 2,000 new cases of OM in the United States each year with an overall incidence of 5 to 6 people per million. Other eye tumors such as lymphomas and hemangiomas are even less common.

**DIAGNOSIS**

An eye tumor may go unnoticed for some time and only present itself with blurred vision, floaters or flashing lights after it has grown large enough to impact a patient's vision. Often, there is no vision irregularity at all and OM is detected through a dilated eye exam by a trained ophthalmologist.

Beyond direct examination with an ophthalmoscope, the doctor may use ultrasound, CT scan, angiography or a needle biopsy in making a full diagnosis of an eye tumor. The doctor will also test if the disease has spread; MRI, CT and/or PET scans may be utilized.

Tumors are classified by size: small tumors are 5mm or more in diameter and 1-3 mm thick, medium tumors are less than 16mm in diameter and 2-10 mm thick, and large tumors are 16+ mm in diameter and 10+ mm thick.

**GENOMIC TESTING**

Nearly half of OM patients have a genetic pattern putting them in a high risk category for metastatic disease, where the cancer spreads beyond the eye. With OM, the liver is by far the most common site of metastasis.

DecisionDx-UM, developed by Bill Harbour, MD is a widely used test to identify a tumor's genetic makeup. Known as a gene expression profile (GEP) test, it can determine Class 1A (very low risk; 2% chance of metastasis; 47% of patients fall into this category), Class 1B (low risk; 21% chance of metastasis) and Class 2 (high risk of metastasis: 72% chance of metastasis). A study by the Collaborative Ocular Oncology Group published in Ophthalmology in 2012 found that DecisionDx-UM could successfully classify tumors more than 97% of the time. Learn more at myuvealmelanoma.org.

Monosomy 3 is another prognostic test. It classifies eye tumors as high risk based on a specific chromosome mutation. Both Monosomy 3 and DecisionDx-UM biopsies must be performed prior to plaque treatment.

Peter Hovland, MD, PhD, OM's Medical Director, recommends genomic testing as a way to inform a more aggressive surveillance schedule which could lead to earlier detection of metastasis and the ability to enter preclinical trials. OMF recommends all patients having a discussion with their doctor at the time of primary tumor diagnosis about testing options. Patients should also inquire about storing tissue samples for future testing and other medical advances.

**TREATMENT**

Treatment for primary eye tumors is generally highly effective and aims to spare vision and ocular tissue while limiting the chances of the cancer spreading. The most common treatment for small- and medium-sized tumors is radiation, which 80-90% of OM patients receive. With plaque brachytherapy, a small disc-shaped shield encasing radioactive seeds is attached to the outside of the eye, over the tumor. This plaque is removed after several days and, according to the NCI, 85% of patients treated this way kept their eye for at least five years.

With large tumors, the eye may be removed via enucleation after which the patient receives an ophthalmic implant. An ocularist will fit a prosthesis over this implant and make it appear nearly identical to the remaining eye. Other common primary treatments include proton beam therapy (another form of radiation), transpupillary thermotherapy (TTT laser treatment) and, in some cases, surgical resection (removal of tumor tissue).

For treatment of metastatic disease, there is a wide range of liver-directed therapies including resection, ablation and radiation (e.g. CyberKnife). Treatments such as chemomobilization (TACE), radioembolization and hepatic perfusion (PBP/HP) introduce cancer-destroying agents directly into the liver. There is, however, no approved systemic treatment for OM. Unlike with cutaneous melanoma, chemotherapy has not been shown to be effective. You can learn more about available treatment options and clinical trials at ocularmelanoma.org.

**SURVEILLANCE**

Nearly 50% of OM patients will go on to develop metastatic disease but, at the time of primary diagnosis, metastatic disease will only be seen in about 3% of patients due to the micrometastatic nature of OM.

The earlier metastatic disease can be detected, the more options are generally available. Surveillance (i.e. ongoing monitoring) may include liver function tests, chest x-rays, liver/abdominal imaging (ultrasound, MRI or CT scan) and/or comprehensive PET-CT. MRI with contrast and diffusion weighting every six months to a year is a common regimen. Genomic testing does inform surveillance plans but there is no clear consensus regarding ongoing monitoring so it is imperative to understand and evaluate all options with an oncologist specializing in OM.