The methods of diagnosis and treatment for uveal melanomas have changed over the years. This brochure will explain the basics for patients, their families and eye care specialists.

Though choroidal melanoma is the most common cancer to arise in the adult eye; it is very rare. Yearly, it occurs in 4-6 people per million in the USA and is found in 10-12 per million in Australia, Europe and Russia. More common in people with outdoor occupations, those with blue irises and fair skin, it is reasonable to assume that ultraviolet radiation from the sun plays a role. That’s one reason why Dr. Finger says, “think of sunglasses as sun block for your eyes.”

In 2009, Dr. Finger published* his patient outcomes for 400 cases of intraocular melanoma treated with palladium-103 plaque radiation therapy. It was important to notice that he found a local control rate (rate of killing the tumor in the eye) of 96.7% and that 79% of patients’ retained useful vision. These results rank among the highest in the world. It is important because local tumor control improves survival and seeing improves patient quality of life.

Since then Dr. Finger has published* that patients plaque-treated for smaller choroidal melanomas are more likely to survive and that the dose to normal tissues within the eye are almost always less if your eye cancer specialist uses a palladium-103 radiation plaque rather than one with iodine-125 seeds.

Dr. Finger has so much experience with radiation of the eye, he was selected by the American Brachytherapy Society to create and published international guidelines for eye plaque radiation therapy of choroidal melanoma and retinoblastoma. *

* Individual papers are available on request.
The Diagnosis of Choroidal Melanoma
Clinical Diagnosis Versus Biopsy

Your eye cancer specialist should be able to make the diagnosis of choroidal melanoma with more than 99% accuracy without a biopsy.

It can be as simple as Dr. Finger’s nemonic MOST for most cases. Melanoma = Orange pigment lipofuscin, Subretinal fluid and Thickness of more than 2 mm. If those three findings are present the tumor is a choroidal melanoma.

While some centers are suggesting biopsy to determine the genetics of each melanoma, Dr. Finger knows of no center that uses that information to change their methods of treatment or follow up. Since there is risk involved with placing a needle or biopsy instrument into the eye, Dr. Finger recommends biopsy when:

1) the clinical diagnosis is uncertain,
2) a patient requires a diagnosis by pathology
3) the intraocular tumor is not a melanoma but thought to be a metastasis from a hidden “occult” primary source.

“Very few patients have to risk an intraocular biopsy in order to determine the diagnosis of choroidal melanoma.”

“Current technology analysis employed by an eye cancer specialist allows for 99.6% diagnostic accuracy by clinical examination alone.”

However, there are choroidal melanomas that don't have all the classic MOST characteristics. These tumors require special testing such as fundus autofluorescence (FAF) to highlight orange pigment lipofuscin or optical coherence tomography (OCT) to uncover small amounts of leaking fluid and fluorescein angiography to look for intense leakage, tumor blood vessels or microscopic aneurysms. In addition, ultrasound imaging can be crucial for making tumor measurements as well as assessing internal tumor characteristics.

Dr. Finger says, “it never hurts to request a baseline eye cancer specialists analysis for any suspicious choroidal tumor.”
PET/CT Imaging
Whole Body Scanning for Uveal Melanoma

333 patients with uveal melanoma treated at The New York Eye Cancer Center were screened for metastasis prior to treatment. PET/CT improved our ability to detect metastases because it is very sensitive for finding liver metastasis and was the only method that evaluated other possible sites (e.g. bone, lung, skin).

PET/CT offers the most complete methods of screening for metastatic choroidal melanoma.

PEARLS:
1) Only larger T-staged tumors exhibited metastasis.
2) Second cancers were found irrespective of melanoma size.
3) Liver involvement was found in all patients with metastasis.

About Paul T. Finger, MD

Dr. Finger is a specialist in ocular tumors, orbital diseases and ophthalmic radiation therapy. He has developed new methods for the diagnosis and treatment of many ocular tumors, holds several patents and has written hundreds of scientific publications.

Dr. Finger is invited to lecture frequently at local, national and international meetings. He is founding Director of The New York Eye Cancer Center and The Ocular Tumor Services of The New York Eye and Ear Infirmary and NYU School of Medicine.

Dr. Finger is the Chair of the (AJCC) American Joint Committee on Cancer’s Ophthalmic Oncology Task Force and a member of the Committee on Cancer (COC) of the American College of Surgeons. Further, he has consulted for The American Brachytherapy Society (ABS) and the Association for Physicists in Medicine (AAPM).

For more information visit his web site: http://paultfingermd.com

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