

A New Treatment For Metastatic Melanoma

By: Gil Lederman, M.D.

One of the most vicious skin cancers is known as melanoma. It is mainly associated with sun exposure especially in one's younger years. Since treatment is so difficult and often futile, the medical community encourages minimizing sun exposure to decrease incidence of melanoma. The diagnosis is suspected by a changing or new appearance of a "mole". The exact diagnosis is suspected by a dermatologist and confirmed under the microscope by pathologist.

There is considered to be an epidemic of melanoma possibly related to people having more leisure time and time enjoyed outdoors - meaning sun exposure time. Being married to a dermatologist one is particularly cognizant of the risks of sun exposure and possible steps to diminish unnecessary exposure such as avoiding the mid-day sun, adequate clothing including hats, long sleeve shirts, and diligent and regular reapplication of sun protection cream.

Yet, despite all of these measures melanoma does indeed occur and physicians, patients and their families are forced to deal with the situation that confronts us.

Surgery is most commonly used as a primary treatment for melanoma depending upon the size and depth of the melanoma. Sometimes wide excisions are used to diminish the likelihood of local recurrence. Yet in some patients, the primary site is never found. Sometimes melanomas spontaneously regress. This is felt not to be a good prognostic phenomenon.

Recently one of my colleagues asked why we would give radiosurgery to one with melanoma. The simple answer is two fold. One is that standard therapy is quite poor for melanoma and the second is that stereotactic extracranial body radiosurgery is quite effective in the area treated. In addition to its success is the fact our treatment is non-invasive and generally well tolerated.

For those with metastatic melanoma some seek to undergo surgical removal of the cancer. Metastatic means the cancer has traveled beyond the original site. For cancer to travel from the primary site to a new site usually involves either the lymphatic system with cancer cells spreading through the lymph vessels into the lymph nodes or more commonly the blood system with cancer cells going through blood vessels to distant sites. There is essentially no organ that is immune from the potential risk of metastatic melanoma.

In some with limited sites of disease, surgery is used to debulk cancer from the patient. For others systemic treatment including immunotherapy or chemotherapy is used. Even bone marrow transplants have been investigated. There have been many approaches but few successes in treating metastatic melanoma. It was recently announced by former First Lady Nancy Reagan that daughter Maureen is being treated for metastatic melanoma.

Yet the success rate with most systemic therapies is modest and even in those patients most commonly transient.

Stereotactic radiosurgery was first used for melanoma spread to the brain. The success rate in the brain remains high with a majority of patients having control of the cancer in the brain. Our experts in Radiosurgery New York were the first in the Western Hemisphere to offer extracranial stereotactic radiosurgery. Some with metastatic melanoma have a chance for long-term success. Each case is different, of course.

Since commencing extracranial stereotactic radiosurgery, our experts have performed thousands of radiosurgeries. Control rate in the treated site remains high for melanoma – even though it was once considered a radiation resistance cancer.

The sites treated have included the ankle, liver, lung, mediastinum, pancreas, spleen, rib, vulva and elsewhere. Our patients have ranged in age from young to old. Sites of melanoma treated have been from less than a cubic centimeter to liters – yet the control rate is high.

Those patients were treated with a few, very large fractions of radiosurgery. A typical patient received only 5 treatments. This compares favorably to those patients going through standard therapy where often 10, 15, 20 or more treatments are given. Standard radiation must treat much more healthy tissue and is usually given in much smaller portions or doses. The distinction is crucial.

What is the difference between standard radiation and radiosurgery? I often compare it to the plum and the breadbox. Standard radiation has to treat an area of the body like a breadbox to get to the area of the cancer much often plum sized. Standard radiation results in large areas of healthy tissue being radiated for no apparent benefit.

Stereotactic body radiosurgery allows us to zero in and treat the cancer very precisely with high dose while avoiding in general harm to healthy normal tissues. The concept is simple, beautiful and most commonly successful in delivery.

We continue to follow our patients after radiosurgery with routine CT and/or MRI scanning. Sometimes we use PET or other procedures as individually indicated. Our success rate in extracranial sites using radiosurgery for melanoma is very high – about 90%. Control means cessation of growth, shrinkage or disappearance of the cancer. Fifty percent of the cancers evaluated have actually decreased in size. The remainder has been halted in place. We believe the radiographic result is likely scarring.

Thus, extracranial body radiosurgery offers treatment options for those with limited sites of disease or in whom symptoms are severe.

Who undergoes stereotactic body radiosurgery for metastatic melanoma? Often it is the same patient who would undergo chemotherapy or surgery for the same situation. The appeal of our program is the success rate, albeit in the treated field, with minimum negligible symptoms elsewhere, avoidance of suppression of the immune system or the invasion and anesthesia associated with open surgery.

For the select patient with metastatic melanoma body radiosurgery may play an important role. Each case is unique. We have an experienced team of experts to evaluate each case. We offer treatment when we believe there is a chance to benefit the patient. Of course, discussions between physician, patient and family are critical.

When is radiosurgery used for melanoma? Radiosurgery has great uses, for example, if chemotherapy fails to provide the desired results and surgery cannot always be undertaken successfully. Stereotactic body radiosurgery is appealing in that it is non-invasive and well-tolerated. The control rate in the treated field is very high. While people in the past said that radiation was not effective for melanoma – the converse is true because the biologic slope of the response curve to radiation in melanoma is steep, greater doses of radiation (like those used in stereotactic body radiosurgery) have greater effect.

We have established a hot line at 212-CHOICES and e-mail address: gil.lederman@rsny.org. There are also monthly seminars on brain, body and prostate cancer treatment. We invite your participation. We encourage you to use these opportunities to learn more about these options. We also will ask that you send in copies of films, reports, pathology for review by our panel of experts.