



Melanoma:

An Analysis of Risk

By A. Lawrence Cervino, MD

CUTANEOUS MELANOMA IS diagnosed in approximately 76,000 people in the U.S. every year. While it represents just 4 percent of skin cancers, it accounts for 80 percent of skin cancer deaths. With the incidence increasing over the past four decades, more attention has been directed toward risk assessment.

The initial pathology has become more detailed and revealing. More risk factors are being mentioned, including the number of mitoses, presence or absence of ulceration and the percent of regression, among others. Without these details, in the past, we may have been under-staging these tumors. Many of us over the years have seen a number of patients with thin melanomas who had just standard excision but went on to develop metastatic disease. In retrospect, frequently these patients had certain risk factors that were either not mentioned in the report or were not accounted for by the surgeon. Obviously, a good working relationship between the surgeon and pathologist is necessary.

Seventy-five percent of melanomas are diagnosed as Stage I or II with no incidence of metastasis. A great number

of these are having sentinel node biopsies as part of risk assessment. If the sentinel node is negative, there is a 95 percent chance that the remaining nodes in that basin are negative. Unfortunately, sentinel node biopsy has not improved survival. Furthermore, two of three patients who metastasize have a negative sentinel node. Ideally, additional risk assessment is necessary.

Like many other cancers, melanoma is beginning to be assessed by gene expression. Hopefully this assay can more accurately predict the metastatic potential of tumors. For example, Castle Biosciences, (of Houston, TX and Phoenix, AZ), has developed a proprietary 31 gene assay that uses RT-PCR to assess the metastatic potential of tumors that are sentinel node negative. The test stratifies patients as Class 1 (low risk of metastasis) or Class 2 (high risk of metastasis). The low risk patients have a 97 percent chance of being metastasis free for five years, while the Class 2 patients have only a 31 percent chance. Hopefully, those patients with high risk can be selected for increased surveillance and possibly more aggressive treatment. We are seeing an increasing number of melanomas in women of childbearing age. Obviously, the initial

assessment and prognosis for these patients could be influential in family planning. Patients need to know their risks.

Finally, there are a number of new chemotherapy and immunotherapy agents that have proven to extend the lives of Stage IV patients. Drug selection is based on a number of biomarkers. Also available are some protocols for the use of these agents in Stage III disease.

In the future, we expect a number of targeted therapies to personalize the management of this capricious disease and better predict the prognosis.

Lawrence Cervino, MD, is a board certified general and plastic surgeon with fellowship training in hand and head and neck Surgery. He has more than 35 years of experience in complex reconstructive procedures and treats more than 200 patients with melanoma each year. Dr. Cervino is the founder of Crystal Plastic Surgeons, an affiliate of Crystal Clinic Orthopedic Center. He and his partners, Gary A. Pennington, MD, and Lewis A. Diulus III, MD, have offices located in Akron, Barberton, Green, Hudson and Medina, OH.

Note: Dr. Cervino has no financial relationship with or commercial interest in Castle BioSciences. ■