Melanoma: Metastases

Melanoma can metastasize anywhere in the body. Metastatic disease may present years after therapy with perceived cure. Generally, metastatic disease is associated with a very poor prognosis and the presence of metastatic disease is a strong predictor of disease recurrence. Survival is often less than one year. Cause of death in these patients is usually related to metastatic disease to the lung, brain or heart.

Tumor may metastasize either by lymphatics or hematogenously. The earliest and most common sites are the regional lymph nodes. Approximately 2/3 of distant metastases travel through the regional lymph nodes first. Common distant sites include other skin sites, subcutaneous tissue, lung, liver, brain, bone and GI tract. In fact, melanoma is thought to be the most common tumor to metastasize to the GI tract. The most common affected site within the GI tract is the small intestine. Metastases may also occur to rare locations, such as the eye, adrenal glands, and heart.

In some instances, patients may present with symptoms and signs of metastatic disease without prior history of a primary lesion. These patients must undergo a thorough skin examination. However, many times a primary cannot be found.

After diagnosis of a primary melanoma, a work-up is performed to stage the disease. This begins with a good history and physical. Eventually, it may also include a sentinel lymph node biopsy, brain MRI, whole body CT, PET scan, bone scan, or x-ray.

If a lesion is suspected to be metastatic disease, tissue should be biopsied for confirmation and diagnosis. Tumor markers, such as S100, as well as genetic markers may be used for identification. The specific site of metastasis, number of metastases, and LDH level are the most important factors in determining prognosis. Of distant sites, the lung is associated with the best prognosis.

Metastases to the lymph nodes are treated by surgical resection, if possible. In rare instances, solitary distant lesions may be amendable to surgical resection as well with survival benefit. Despite best efforts, often only palliative therapy is realistic once metastatic disease is diagnosed. Metastatic disease to the gastrointestinal tract may be treated surgically due to obstruction or bleeding. Treatment options are discussed in more detail elsewhere.

Brain metastases are associated with a particularly poor prognosis. Treatment is generally palliation by whole brain radiation, although surgery with some survival benefit is possible with solitary lesions. Temozolomide is the only known systemic treatment that is able to penetrate the blood brain barrier and therefore is often considered in these patients.
References:


