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Introduction to Head and Neck Melanoma: A Dermatologist’s Perspective 213
Yasser Faraj and Vincent P. Beltrani

Melanoma is often initially evaluated by the dermatologist. A methodical evaluation requires complete history and detailed clinical physical examination and appropriate decisions regarding biopsies. Accurate diagnosis and staging require clinicopathologic correlation and an excellent relationship with the dermatopathologist. Subsequent definitive treatment may be managed entirely by the dermatologist or might require a multidisciplinary team of specialists.

Classification and Staging of Melanoma in the Head and Neck 221
Anthony M. Bunnell, Stacey M. Nedrud, and Rui P. Fernandes

The rates of melanoma continue to rise, with recent estimates have shown that 18% to 22% of new melanoma cases occur within the head and neck in the United States each year. The mainstay of treatment of nonmetastatic primary melanomas of the head and neck includes the surgical resection and management of regional disease as indicated. Thorough knowledge of the classification and staging of melanoma is paramount to evaluate prognosis, determine the appropriate surgical intervention, and assess eligibility for adjuvant therapy and clinic trials. The traditional clinicopathologic classification of melanoma is based on morphologic aspects of the growth phase and distinguishes 4 of the most common subtypes as defined by the World Health Organization: superficial spreading, nodular, acral lentiginous, and lentigo maligna melanoma. The data used to derive the AJCC TNM Categories are based on superficial spreading melanoma and nodular subtypes. Melanoma is diagnosed histopathologically following initial biopsy that will assist with classifying the tumor to guide treatment. Classification is based on tumor thickness and ulceration (T stage, Breslow Staging), Regional Lymph Node Involvement (N Stage), and presence of metastasis (M Stage). Tumor thickness (Breslow thickness) and ulceration are 2 independent prognostic factors that have been shown to be the strongest predictors of survival and outcome. Clark level of invasion and mitotic rate are no longer incorporated into the current AJCC staging system, but still have shown to be important prognostic factors for cutaneous melanoma. For patients with metastatic (Stage IV) disease Lactate Dehydrogenase remains an independent predictor of survival. The Maxillofacial surgeon must remain up to date on the most current management strategies in this patient population. Classification systems and staging provide the foundation for clinical decision making and prognostication for the Maxillofacial surgeon when caring for these patients.

Imaging and Laboratory Workup for Melanoma 235
Arshad Kaleem, Neel Patel, Srinivasa Rama Chandra, and R.L. Vijayaraghavan

Accurate diagnosis and staging of malignant melanoma remain crucial components in the overall treatment and prognosis of the patient. Advanced imaging modalities as well as laboratory testing continue to constitute an important part of the workup in melanoma and have seen several developments in recent years. The authors discuss imaging techniques and serum biomarkers used in the assessment of the melanoma patient.
Surgical management of head and neck melanoma starts from the primary biopsy of the cutaneous site by a narrow excision with a 1 to 3 mm margins. The margin should include the whole breadth and sufficient depth of the lesion. The key is not to transect the lesion. With the advent of molecular testing, gene expression profiling, and immunotherapies, the surgical management of advanced melanoma has changed. Sentinel lymph node biopsy is an essential armamentarium for T2a and higher staging/greater than 1 mm thick and advance stage disease. Molecular pathogenesis and cancer immunology are recognized in the recent treatment protocols along with surgery in advanced stages of melanoma.

Mohs Micrographic Surgery for the Treatment of Cutaneous Melanomas of the Head and Neck

Surgical excision achieving clear histologic margins remains the mainstay treatment for primary cutaneous melanoma. Tumors of the head and neck, particularly those arising in chronically sun-damaged skin, often demonstrate extensive and asymmetric subclinical extension. Over the decades, this has proven to be a significant problem for tumors arising on the head and neck, as anatomic and functional complexities of these areas have led to suboptimal surgical treatment, yielding unacceptably high rates of local recurrence and persistently positive margins with traditional wide local excision. Patients who undergo Mohs micrographic surgery may have improved survival over those who undergo wide local excision.

Management of Regional Lymph Nodes in Head and Neck Melanoma

The utilization of sentinel lymph node (SLN) biopsy has transformed the workup and staging of intermediate-thickness cutaneous melanomas. SLN biopsy, performed at the time of primary tumor excision, accurately maps lymph nodes at risk of harboring occult metastatic deposits from head and neck cutaneous melanomas and represents the current standard of care. Completion lymphadenectomy identifies additional tumor in 12% to 24% of SLN biopsy positive cases but does not affect melanoma-specific survival.

Reconstruction of Head and Neck Melanoma Defects

The head and neck region is unique from the other anatomic sites due to its rich blood supply and ability to heal well after surgery. Surgical extirpation of melanoma usually requires wide resection margins, and the defect from surgery can be devastating to the patient and impossible to conceal sometimes. Therefore, the goal of a reconstructive technique is to restore the uniformity of skin color, texture, and contour and preserve the function. In general, head and neck skin defects are reconstructed with local and regional flaps. In this paper, the authors review the most common flaps used in head and neck reconstruction.

Management of Head and Neck Mucosal Melanoma

Head and neck mucosal melanomas are uncommon and aggressive malignancies that arise mainly in the nasal cavity and paranasal sinuses, with the next commonest site being the oral cavity. The mainstay of treatment is radical surgical resection.
Adjuvant radiotherapy improves locoregional control but does not improve overall survival. Systemic treatment with immunotherapy or targeted therapies can offer scope for modifying the course of the disease in both the adjuvant and the recurrent and metastatic setting. Further understanding of the genomic landscape and factors regulating immunogenicity will lead to further therapeutic opportunities in this challenging disease.

Adjuvant and Neoadjuvant Therapies in Cutaneous Melanoma

Jay Ponto and R. Bryan Bell

Melanoma is the most common cause of skin cancer-related death in the United States. Cutaneous melanoma is most prevalent in the head and neck. The long-term prognosis has been poor and chemotherapy is not curative. Complete surgical resection with locally advanced disease can be challenging and melanoma is resistant to radiation. Advances made in immunotherapy and genomically targeted therapy have transformed the treatment of metastatic melanoma; as of 2021, the 5-year survival for metastatic melanoma is greater than 50%. Ongoing clinical studies are underway to integrate these life-saving therapies into the presurgical or postsurgical settings. This article reviews that effort.

Future Treatments in Melanoma

Kathryn Wells, Vinesh Anandarajan, and James Nitzkorski

Melanoma is a highly malignant tumor that is relatively common in the United States. Surgical extirpation is the mainstay in treatment, but a multimodal therapeutic approach is increasingly important in the era of highly effective immune and targeted therapies. Although resection of melanoma will continue to be the mainstay of management for the conceivable future, improvements in multimodality therapy have and will continue to rewrite the therapeutic playbook for this lethal and increasingly complex malignancy for head and neck surgeons treating patients with melanoma.