Journal of Oncology Research and Treatment

Moto, J Res Oncol Treat 2023, 8:3

Short Communication Open Access

Melanoma Epidemiology and Risk Factors

Shuji Hira Moto*

Department of Clinical Oncology and Palliative Medicine, Mitsubishi Kyoto Hospital, Kyoto, Japan

Introduction

The treatment of melanoma patients is a difficult and developing field. Plastic surgeons need to be abreast of latest developments in the industry. Excisional biopsy is still the preferred method of diagnosis, but there is no proof that using a different form of biopsy affects a patient's chance of survival or recurrence. Sentinel lymph node biopsy should be offered to all medically qualified candidates with intermediate thickness melanomas (1.0 mm to 4.0 mm) and should be taken into consideration for high risk lesions (ulceration and/or high mitotic figures) with melanomas of 0.75 mm to 1.0 mm. Wide local excisions should be performed with margins as advised by national comprehensive cancer network guidelines according to Lesion Breslow depth. Treatment options for melanoma discovered during pregnancy include extensive local excision and preoperative lymphoscintigraphy [1]. As it relates to the justifications for sentinel lymph node biopsy and the effectiveness of postoperative radiation treatment, desmoplastic melanoma management is now a contentious topic. In the past, subungual and auricular melanoma was treated by amputating the affected appendage; today, less drastic procedures are used instead. For example, reconstruction of the ear is now attempted when there hasn't been a gross invasion into the perichondrium and subungual melanoma may be treated with a wide local excision that includes the periosteum and immediate full thickness skin grafting over bone. Although surgery is still the preferred method of treatment, recent developments in immunotherapy and targeted molecular therapy for metastatic melanoma hold considerable promise for the creation of new medicinal treatments for the disease [2].

Description

Skin cancer known as melanoma is brought on by melanocyte malignancy. Melanoma incidence is rising quickly globally, posing issues for public health. Ocular, gastrointestinal, mucosal, leptomeningeal, genitourinary, and lymphatic primary extra cutaneous melanomas can occur. Intermittent sun exposure considerably raises the chance of developing melanoma and the link between Ultraviolet (UV) light exposure and the development of melanoma is intensely acute and complicated. It ranks sixth among all cancer types in women and fifth among all cancer types in males [3]. Medical experts use a clinical examination of the pigmentation to make the diagnosis of melanoma.

Malignant melanoma has certain structural characteristics, such as asymmetry, confluence of growth, prominent cellularity and inadequate circumscription. Malignant melanoma has distinctive nucleoli and an uneven, thick nuclear membrane as cytological characteristics. Reduced sun and UV light exposure is one of the preventative methods. The short and long term morbidity and death rates are significantly decreased by skin cancer early identification. Depending on the underlying lesion and tumour stage, melanoma sufferers may require a different course of therapy and follow-up appointments with the doctor. Surgical excision, immunotherapy using Interleukin 2 (IL-2), gene therapy and biochemotherapy are the usual treatments for malignant melanoma [4].

The majority of nations' melanoma data show a sharp rise in the disease's incidence, with a slowdown in that pace between 1990 and 2000. Males are roughly 1.5 times more likely than females to develop melanoma, but other studies suggest that the disparity in prevalence between the sexes should be examined in relation to age: Melanoma incidence is higher in women than men until they reach the age of 40, but by the time they reach 75, it is almost three times higher in men than in women. Exposure to Ultraviolet (UV) rays, which have a genotoxic impact, is the most significant environmental risk factor for the development of malignant melanoma and one that may be controllable. Artificial ultraviolet ray exposure may play a role in the development of melanoma. The quantity of melanocytic nevi, personal history and genetic predisposition are the main host risk factors. A patient should be viewed as having a higher chance of developing another melanoma if they have a personal history of the disease. In fact, numerous primary melanomas can occur in 1%-8% of individuals with a history of melanoma [5]. Here, we go through melanoma's dermatological categorization and diagnosis.

Conclusion

Since melanoma is not genetically uniform, there are significant prognostic and therapeutic differences between the various pathologic subtypes, particularly in regards to the type of growth phase (radial *vs*. vertical growth), total vertical dimension, ulceration of the primary tumour and metastatic process. Both sporadic and familial melanomas include chromosomal aberrations and gene changes; among the most significant are those affecting 9p21, which contains the p16 locus, a region considered to be crucial for the proper course of the cell cycle. Aggressive conduct is linked to aberrant p16 expression. The creation of hormones, growth factors and their receptors by melanoma cells is an impressive display of their biosynthetic abilities, which may support and hasten the growth and advancement of the tumour. For instance, UV radiation, a recognized carcinogen, controls the production of the tumor related hormones adrenocorticotropic hormone and alpha melanocyte stimulating hormone *in vitro*. Melanomas are distinct from other malignancies in that they naturally express the structural proteins and melanogenic enzymes needed to produce melanin. Melanogenesis related proteins are quickly making their way into the clinical setting, where they are exploited both as diagnostic markers and as possible therapeutic targets for melanoma.

***Corresponding author:** Shuji Hira Moto, Department of Clinical Oncology and Palliative Medicine, Mitsubishi Kyoto Hospital, Kyoto, Japan; E-mail: Hiramotashuji@gmail.com

Received: 13-December-2022, Manuscript No. AOT-22-83267; **Editor assigned:** 15-December-2022, PreQC No. AOT-22-83267; **Reviewed:** 29-December-2022, QC No. AOT-22-83267; **Revised:** 28-March-2023, Manuscript No. AOT-22-83267; **Published:** 04-April-2023, DOI: 10.4172/aot.1000221

Citation: Moto SH (2023) Melanoma Epidemiology and Risk Factors. J Res Oncol Treat 8:221.

References

1. López F, Rodrigo JP, Cardesa A, Triantafyllou A, Devaney KO, et al. (2016) Update on primary head and neck mucosal melanoma. Head Neck 38: 147-155.
2. Mihajlovic M, Vlajkovic S, Jovanovic P, Stefanovic V (2012) Primary mucosal melanomas: A comprehensive review. Int J Clin Exp Pathol 5: 739-753.
3. Spencer KR, Mehnert JM (2016) Mucosal melanoma: Epidemiology, biology and treatment. Melanoma, Cancer Treat Res 167: 295-320.
4. Postow MA, Hamid O, Carvajal RD (2012) Mucosal melanoma: Pathogenesis, clinical behavior and management. Curr Oncol Rep 14: 441-448.
5. Moreno MA, Hanna EY (2010) Management of mucosal melanomas of the head and neck: Did we make any progress? Curr Opin Otolaryngol Head Neck Surg 18: 101-106.