ECRONICON OPEN ACCESS

EC DENTAL SCIENCE
Commentary

Lamina and Dyestuff-Mucosal Melanoma

Anubha Bajaj*

Department of Histopathology, Panjab University, A.B. Diagnostics, India

***Corresponding Author:** Anubha Bajaj, Department of Histopathology, Panjab University, A.B. Diagnostics, India.

Received: October 06, 2022; **Published:** November 24, 2022

Mucosal melanoma of head and neck is an exceptional neoplasm constituted of malignant melanoma emerging within nasal cavity, paranasal sinuses, oral cavity and infrequently within larynx or pharynx.

In contrast to cutaneous melanoma, mucosal melanoma is devoid of concurrent atypical nevi, association with actinic induced cutaneous injury or cogent family history of disease emergence. Thus, pertinent prognostic factors and outcomes remain diverse and indeterminate. Regional lymph node or distant visceral metastasis are commonly delineated.

Median age of disease emergence is 61 years. A male predominance is observed with male to female proportion of ~3.5:1 [1,2].

Upon gross examination, incriminated mucosa is commonly superimposed upon maxillary bone or inferior gingiva. Besides, labial mucosa can exhibit metamorphosis into malignant mucosal melanoma. Generally, mucosal surface is flattened, erythematous or pigmented. Nodular tumefaction is infrequently observed. Mean tumour thickness is ~ 3 millimetres [1,2].

Mucosal melanoma is pigmented although amelanotic variant is frequently exemplified. Majority (90%) of mucosal melanomas exhibit a component of melanoma *in situ*. Neoplasms confined to lower lip may demonstrate features of desmoplasia [1,2].

Upon microscopy, cellular component is configured of epithelioid, fusiform or polymorphous neoplastic cells. Tumour giant cells are comprehensively disseminated within tumour parenchyma [1,2].

Mitotic figures are frequently enunciated. Besides, focal ulceration, necrosis, vascular invasion and perineural invasion are commonly observed [1,2].

TNM staging of mucosal melanoma of head and neck is designated as:

Primary tumour (T)

- T1 and T2 categories are eliminated on account of an unfavourable prognosis associated with miniature, superficial neoplasms.
- T3: Tumour is confined to mucosa and subjacent soft tissue.
- T4: Tumour appears as a component of moderately or significantly advanced, localized disease
- T4a: Moderately advanced, localized disease with tumour incrimination of deep seated soft tissue, cartilage, bone or superimposed cutaneous surfaces.

- T4b: Significantly advanced, localized disease with tumour incrimination of dura, brain, base of skull, inferior cranial nerves as IX, X, XI, XII, masticator space, carotid artery, prevertebral space or mediastinal structures [2,3].

Regional lymph nodes:

- NX: Regional lymph nodes cannot be assessed
- N0: Regional lymph node metastases absent
- N1: Regional lymph node metastases present [2,3].

Distant metastasis:

M0 or MX categories appear inoperative.

- cM0: No evidence of distant metastases.
- cM1: Distant metastasis present.
- pM1: Distant metastasis present which can be confirmed upon microscopic evaluation [2,3].

Clinical staging of mucosal melanoma is denominated as

- Stage III: T3, N0, M0.
- Stage IVa: T4a, N0, M0, T3, N1, M0, T4a, N1, M0.
- Stage IVb: T4b, any N, M0.
- Stage IVc: Any T, any N, M1 [2,3].

Mucosal melanoma is immune reactive to S100 protein, tyrosinase/T311, Melan A/Mart 1/A103, microphthalmia associated transcription factor/MITF or HMB45. Desmoplastic melanoma is immune reactive to S100 protein and tyrosinase [3,4].

Mucosal melanoma is immune non reactive to keratin, CD34 and muscle specific actin [3,4].

Mucosal melanoma requires segregation from neoplasms such as amelanotic melanoma, large cell lymphoma or poorly differentiated carcinoma [4,5].

Mucosal melanoma is associated with an extremely unfavourable prognostic outcome. Median survival is ~ 3 years. Few neoplasms of minimal grade devoid of vascular invasion exhibit a median survival of ~ 8 years [4,5].

Features such as vascular invasion, polymorphous population of neoplastic cells and tumour necrosis are accompanied by inferior prognostic outcomes [4,5].

Features such as tumour thickness, focal ulceration and depth of invasion of subjacent tissue remain non concordant to disease prognosis [4,5].

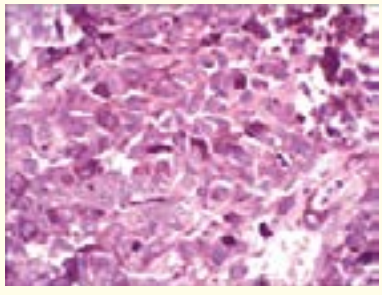

Figure 1: *Mucosal melanoma depicting polymorphous and epithelioid cells incorporated with abundant, dusty cytoplasm, vesicular nuclei and prominent nucleoli [6].*

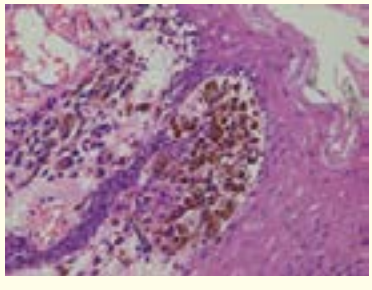

Figure 2: *Mucosal melanoma delineating nests and aggregates of epithelioid cells imbued with hyperchromatic nuclei, abundant intracellular and extracellular melanin and strips of stratified squamous epithelium admixed with engorged vascular articulations [7].*

Bibliography

1. Nisi M., *et al*. "Oral Mucosal Melanoma". *Journal of Craniofacial Surgery* 33.3 (2022): 830-834.
2. Zhang S., *et al*. "Evolving Treatment Approaches to Mucosal Melanoma". *Current Oncology Reports* (2022).
3. Jung S and Johnson DB. "Management of Acral and Mucosal Melanoma: Medical Oncology Perspective". *Oncologist* 27.8 (2022): 703-710.
4. Thuaire A., *et al*. "Oral mucosal melanoma - A systematic review". *Journal of Stomatology, Oral and Maxillofacial Surgery* (2022): S2468-7855.
5. Salari B., *et al*. "Sinonasal Mucosal Melanoma: An Update and Review of the Literature". *The American Journal of Dermatopathology* 44.6 (2022): 424-432.
6. Image 1 Courtesy: J Can Res Ther.com.
7. Image 2 Courtesy: Atlas of genetics oncology.org.

Volume 21 Issue 12 December 2022