



## A HISTOPATHOLOGICAL STUDY OF PIGMENTED LESIONS OF SKIN : MELANOMA AND ITS CLINICAL MIMICS

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### ABSTRACT

Pigmented skin lesions are a very common problem encountered by the dermatologist. We conducted a one year study of pigmented lesions of skin which came for histopathological examination. Out of 150 skin biopsies, 26 were sent for pigmented skin lesions. Of these, the biopsy tissue was inadequate in one case while three cases presented with non specific findings. Of the remaining cases, 6 were malignant and 19 were benign lesions. Only 10 of these were of melanocytic origin with 4 cases of malignant melanoma and 6 nevi. The rest were non melanocytic in origin. Clinicopathological correlation was seen in 44% cases. Therefore, histopathological confirmation is imperative whenever a clinically suspicious pigmented lesion is encountered.

**KEYWORDS :** pigmented lesions, skin, histopathology

**Introduction:** Pigmented skin lesions are a very common problem encountered by the dermatologist - while majority (about 90%) are benign, a small percentage of cases are melanomas. (1) A variety of nonmelanocytic lesions have pigmented variants, which cannot be easily recognised clinically and can mimic melanocytic lesions including melanoma. Such mimickers include seborrheic keratosis, basal cell carcinoma, actinic keratosis, dermatofibrosarcoma protuberans and rarely lesions like follicular cyst. (2) (3) Correct diagnosis of some of these skin diseases requires clinicopathologic correlation and pathologic examination often serves as a complementary or a confirmative part of the diagnosis. (4) We conducted a one year study of pigmented lesions of skin which came for histopathological examination to study the pattern of occurrence of these lesions in our setting.

**Materials and methods:** A one year study was conducted in the pathology department of a tertiary care centre on all skin biopsy tissue which came as a pigmented lesion. H&E stained slides of the sections were examined and the histopathological diagnosis was noted. Information regarding clinical presentation and clinical differential was obtained from patient files. The results were analysed using descriptive statistics.

**Results and observations:** Out of 150 skin biopsies studied during this period, 26 were sent for pigmented skin lesions. Of these, the biopsy tissue was inadequate in one case while three cases presented with non specific findings. Of the remaining cases, 6 were malignant and 19 were benign lesions. Only 10 of these were of melanocytic origin with 4 cases of malignant melanoma and 6 nevi. The remaining included pigmented seborrheic keratosis (3 cases), pigmented basal cell carcinoma (2 cases), DLE (2 cases), Inflammatory Linear Veruucc Epidermal Nevus, interface dermatitis including lichen planus and also a case of urticarial vasculitis. Clinicopathological correlation was present in 44% cases.

**Discussion:** In our routine practice, we often come across a variety of melanocytic lesions and their nonmelanocytic mimickers. In the study conducted, only 40% were of melanocytic origin whereas the remaining were non melanocytic lesions. These included interface dermatitis, pigmented seborrheic keratosis, pigmented basal cell carcinoma, DLE, ILVEN, and vasculitis. Crasta J et al. (2) found basal cell carcinoma, seborrheic keratosis, actinic keratosis and dermatofibrosarcoma protuberans to be the common nonmelanocytic tumors that resembled melanocytic tumors whereas in a study by Suvernakar et al. seborrheic keratosis, pigmented actinic keratosis and pigmented basal cell carcinoma comprised the common nonmelanocytic pigmented lesions. (5) Another study found pigmented nonmelanocytic lesions included seborrheic keratosis, solar lentigo, dermatofibroma and hemangioma. (6)

The most common melanocytic lesion was nevi (60% cases) and the remaining were malignant melanoma. Suvernakar et al (5) also found nevi to be commoner than melanoma, a finding seconded by studies of Laishram et al (7) and Rubegni et al (8). Nevi were not only the commonest melanocytic lesion but also the most common benign lesion in our study, followed by pigmented seborrheic keratosis. Clinically the cases of seborrheic keratosis were misdiagnosed as melanoma. Laishram et al also reported seborrheic keratosis to be the second most common benign lesion in their study. (7)

In our study, positive correlation was seen between clinical diagnosis and histopathological diagnosis in only 44% cases. This was mostly due to the fact that many of the benign lesions were clinically suspected to be melanomas. Another Indian study found a high positive correlation of 95% between clinical and histopathological diagnosis. (9)

Many of the pigmented lesions had interface dermatitis. Loss of pigment from basal cells and subsequent ingestion by melanophages in these long standing lesions can cause pigmentary changes. (10) In fact, one study has found lichen planus to be the most common hyperpigmented lesion of skin. (9)

### Conclusion:

Both melanocytic and non melanocytic lesions can present as pigmented skin lesions and the knowledge of these clinical mimickers of melanoma is important for proper diagnosis. Histopathological confirmation is imperative whenever a clinically suspicious pigmented lesion is encountered as many of these may turn out to be non melanocytic tumors and other benign lesions on biopsy. The histopathologist's ability to give an accurate diagnosis also depends on the completeness of the clinical information provided.

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