

CASE REPORT

PIGMENTED BASAL CELL CARCINOMA: A RARE CLINICAL AND HISTOPATHOLOGICAL VARIANT

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ABSTRACT: Basal cell carcinoma is a common malignant tumour of skin, commonly referred to as 'rodent ulcer'. It is common in the head and neck region. Exposure to ultraviolet radiation is an important risk factor. Pigmented basal cell carcinoma is a clinical and histological variant of basal cell carcinoma that exhibits increased pigmentation. It is a rare variant that can clinically mimic malignant melanoma. It is more common in males than females. Herein, we are reporting a case of basal cell carcinoma in a 50 year old woman which was initially diagnosed as malignant melanoma clinically, and later histologically proved to be pigmented basal cell carcinoma.

KEYWORDS: Basal cell carcinoma, pigmented, melanoma.

INTRODUCTION: Basal cell carcinoma (BCC) is a common malignant neoplasm of skin. In 80 percent of cases, basal-cell cancers are found in the head and neck.^[1] It is a slow growing, locally invasive tumour, commonly referred to as 'rodent ulcer'. Pigmented BCC is a rare clinical and histological variant of BCC that exhibits increased pigmentation. Frequency of pigmented basal cell carcinoma is about 6% of all basal cell carcinomas.^[2]

CASE REPORT: A 50-year-old female presented with a pigmented lesion over the right lateral wall of nose covering the ala upto root of nose, growing since 3 years. On examination, a solitary well-defined ulcerated area with blackish pigmentation was noted of size 4x3x1 cms. The borders were raised and irregular in outline. The skin surrounding the lesion showed multiple small pigmented moles of different sizes (Figs. 1 & 2). No regional lymphadenopathy was found. Systemic examination was within normal limits. Clinically, differential diagnoses of melanoma and basal cell carcinoma were considered. Wide excision of the lesion was done surgically and the specimen was sent for histopathological examination. Full thickness skin graft was done. The graft take up was good. Post-operative period was uneventful.

Gross examination of the specimen received showed a 4x3x1cms size skin covered mass with surface ulceration, blackish pigmentation and irregular everted margins. Cut-section revealed a 1.5x1cm brownish area with irregular margins, firm-hard in consistency.

On histopathological examination, tumour cells were found to be arranged in nesting pattern, with characteristic basaloid cells, retraction clefting, with extensive areas of pigmentation. Histopathological features were consistent with pigmented basal cell carcinoma. (Figs. 2 & 3). Areas of adenoid cystic pattern were also seen showing cribriform arrangement of cells. The surgical resected margins were free from tumor.

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DISCUSSION: Basal cell carcinoma (BCC) is a common malignant neoplasm of skin, derived from non keratinizing cells that originate from the basal layer of the epidermis.^[3] Common site of presentation is the head and neck. Pigmented basal cell carcinoma is a rare clinical and histological variant of BCC which is characterized by brown or black pigmentation, comprising only of 6% of total basal cell carcinomas.^[2]

Combination of environmental factors, phenotype and genetic predisposition accounts for main aetiological factors. Ultraviolet radiation exposure is an important risk factor for development of BCC.

BCC was first described in the year 1827 by Jacob.^[4] It classically appears as a slow growing, translucent elevated lesion on sun exposed areas, mostly in the head and neck region. It is more common in fair elderly males after the age of 50 years.^[5] It is characterized by almost a total absence of metastasis (less than 0.01% cases) and local invasion.^[6] Nodular, superficial spreading and infiltrating variants are commonly encountered types of BCCs.^[7] Pigmented BCC is rare, which comprises only of 6% of total BCC cases.^[3] According to study done by Ro KW et al, pigmented BCCs show lesser subclinical infiltration than non-pigmented BCCs.^[8]

Histopathology: Basal cell carcinomas tend to share the following common features^[9]:

- Predominant cell type is basal.
- Peripheral palisading of nuclei.
- Clefting artefact between epithelium and the stroma.

Most common type which is observed is nodular type, which is characterized by nodular masses of basaloid cells extending into the dermis. The cells have large, oval or elongated nuclei with little cytoplasm. The peritumoural lacunae or retraction clefts, which are characteristic of basal cell carcinoma, help in differentiating it from adenexal tumours. Pigmented BCC is a variant which shows increased melanin pigment which is produced by benign melanocytes that colonize the tumour.^[10]

Differential diagnosis for pigmented BCC include, pigmented naevi, melanoma, pigmented seborrheic keratosis and pigmented Bowen's disease.^[2]

CONCLUSION: BCC is a common malignant skin tumor, usually affecting the head and neck region. Pigmented BCC is rare, but it is becoming increasingly common in Asian population. The most important differential diagnosis is malignant melanoma, which has a much poorer prognosis due to rapid growth and metastasis and hence requires more aggressive management. Thus it is of utmost significance to confirm the diagnosis which can be done only by means of histopathology, followed by proper prognostication and management of the patient.

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Figure 1

Fig. 1: Clinical picture of the patient showing 4x3x1.5cm pigmented ulcerated lesion on the right lateral wall of nose covering ala upto root of nose.



Figure 2

Fig. 2: Lateral view of the lesion with surrounding skin showing multiple moles.

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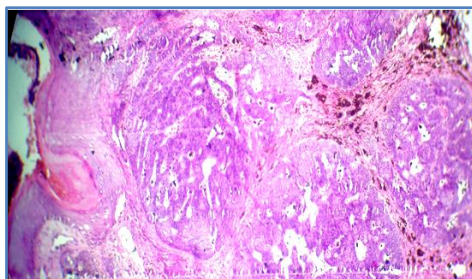


Figure 3

Fig. 3: Photomicrograph showing stratified squamous epithelium with adjacent tumor composed of sheets and lobules of basaloid cells divided by fibrocollagenous tissue and areas of pigmentation. (H & E: 100X)

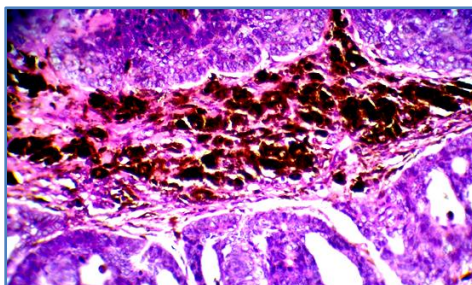


Figure 4

Fig. 4: Photomicrograph showing palisading of tumor cells, focal cribriform pattern and individual cells showing scanty eosinophilic cytoplasm and round to oval vesicular nuclei with extensive areas of pigmentation. (H & E: 400X)

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