

Pigmented Basal Cell Carcinoma: Unusual Presentation - A Rare Case Series

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Abstract: Basal cell carcinoma is the most common skin cancer. It is derived from the basal layer of the epidermis. Exposure to UV radiation is the most common cause. Pigmented variant of basal cell carcinoma is very rare. Pigmentation makes it difficult to differentiate from malignant melanoma or seborrheic keratosis. Here we shall observe three different cases that showed features indicative of pigmented basal cell carcinoma in a tertiary care hospital.

Keywords: basal cell carcinoma, pigmented, dysplastic, squamoid

1. Introduction

Basal cell carcinoma is the most common skin cancer. It is derived from the basal layer of the epidermis. Exposure to UV radiation is the most common cause. Pigmented variant of basal cell carcinoma is very rare. Pigmentation makes it difficult to differentiate from malignant melanoma or seborrheic keratosis. Here we shall observe three different cases that showed features indicative of pigmented basal cell carcinoma in a tertiary care hospital.

Case 1

A 62 year old male presented with a blackish growth over the left lower eyelid measuring 1.5x0.5cm. It was gradually increasing since 6 years. Gross examination showed two extremely small, soft, blackish tissue fragments each measuring 0.2cm. Microscopy showed hyperplastic squamous epithelium with infiltrating nests and sheets of basaloid cells in the underlying dermis. The nests showed peripheral palisading of nuclei. At places, highly dysplastic squamoid cells with enlarged vesicular nuclei and prominent nucleolus were present. Dispersed reactive melanophages noted. Artefactual clefting also noted. Hence features were suggestive of pigmented basal cell carcinoma.

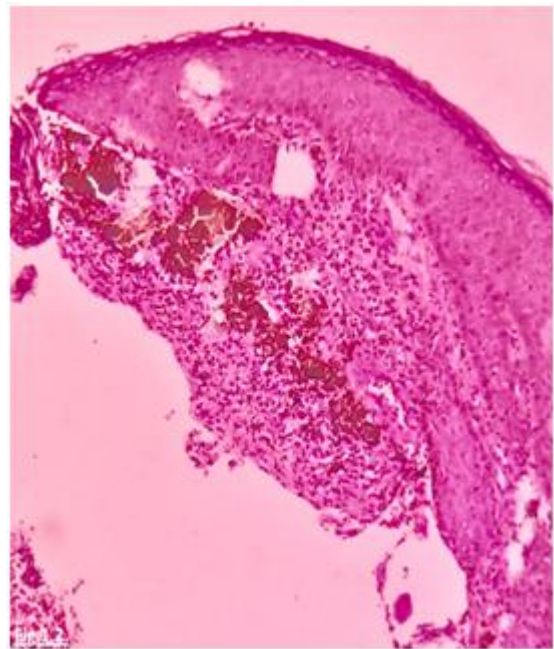


Figure 1.2: Low power view

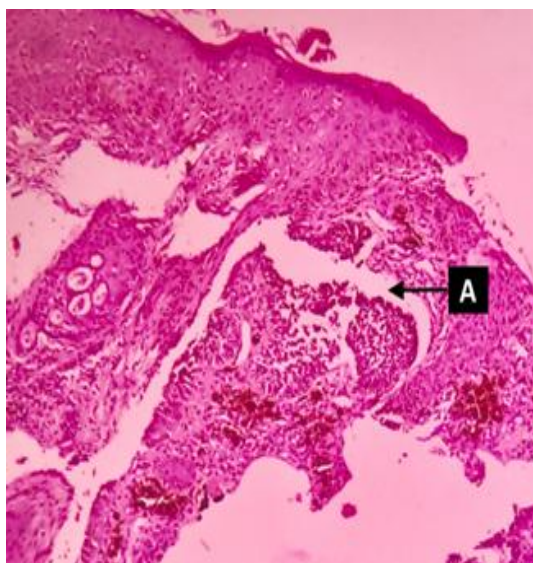


Figure 1.1: High power view
A) Peripheral palisading

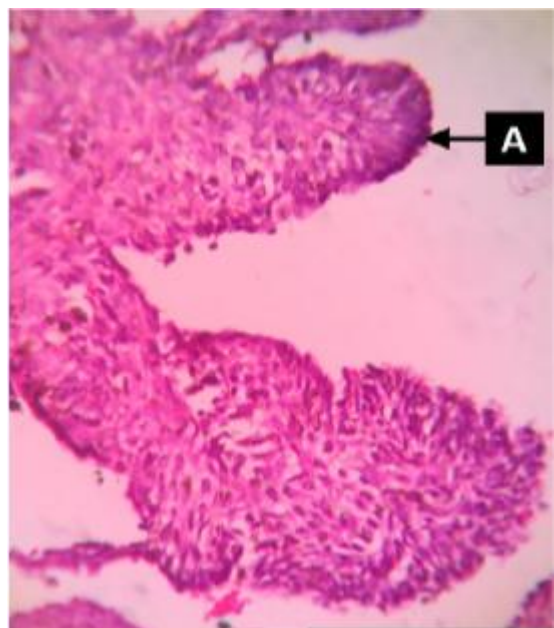


Figure 1.3: Low power view
(A) Clefting

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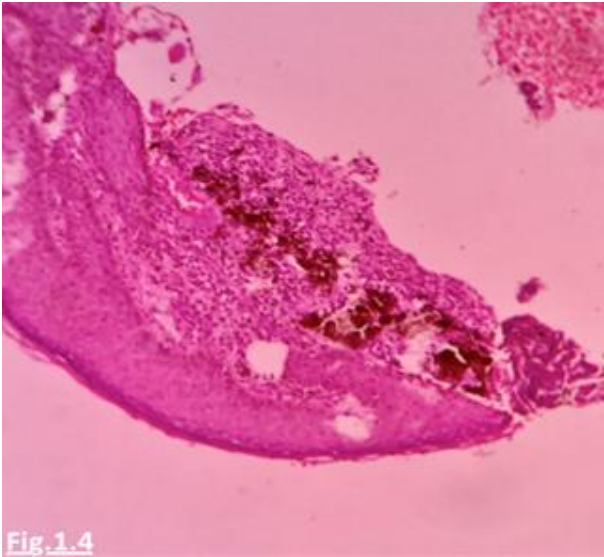


Figure 1.4: Low power view

Case 2

A 56 year old male presented with a brownish to blackish growth 0.5cm above the left upper lip measuring 1.2 x 1cm. It gradually increased over 4 years. Gross examination showed two small, soft, blackish-brown tissue piece measuring 1.5 x 1cm. Microscopy showed hyperplastic squamous epithelium with infiltrating nests and sheets of basaloid cells in the underlying dermis. Peripheral palisading of nuclei was noted as well. At many places, highly dysplastic squamoid cells with enlarged vesicular nuclei and prominent nucleolus were present. Dispersed reactive melanophages were noted here too.

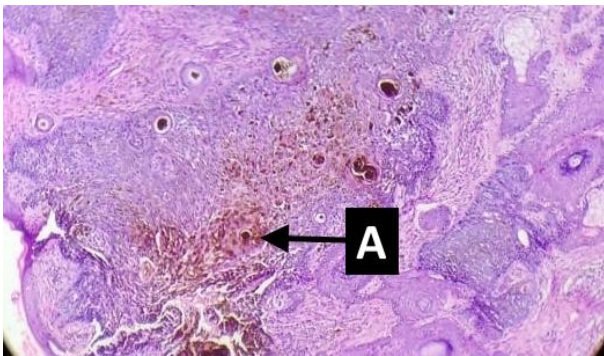


Figure 2.1: Low power view
A) Pigmented melanocytes

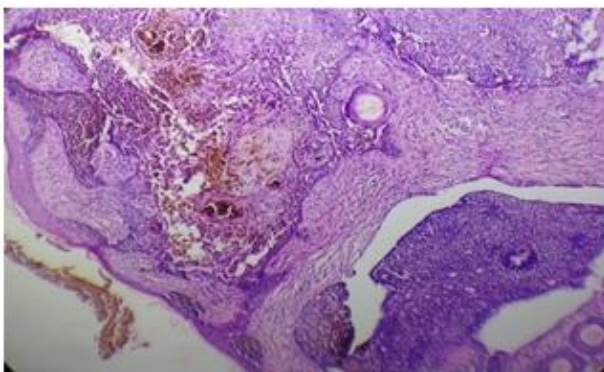


Figure 2.2: Low power view

Case 3

A 70 year old male presented with a brownish-black lesion measuring about 2.5 x 3 cm on the left cheek since 10 years. It has grown gradually in size. Gross examination showed a single, black, soft to firm, tissue bit measuring 0.4 cm. Microscopy showed skin tissue composed of epidermis, dermis and portions of subcutis. Epithelium showed exclusive areas of ulceration, diffuse areas of extravasation of RBCs on superficial dermis. Dermis showed multiple nests and sheets of basaloid cells with bland nuclei surrounded by pallisading of tumour cells at the periphery. The nests were surrounded by dense fibrous stroma. Most of the larger nests and sheets show characteristic cleaving separating them from desmoplastic stroma. At places large areas of pigment incontinence, overlapping of tumor cells and stroma were also noted.

2. Discussion

Basal cell carcinoma constitutes 65% of malignant skin tumor, common in the fourth decade. Male: female ratio is 3:2[1]. The common sites of presentation are cheek and nasal area. The commonest variant is nodular basal cell carcinoma [2]. Pigmented basal cell carcinoma is rare and shows lesser subclinical infiltration than non-pigmented basal cell carcinoma. Commonest differential diagnosis is malignant melanoma. In these cases there were hyperplastic squamous epithelium with infiltrating nests and sheets of basaloid cells in the underlying dermis. The nests showed peripheral pallisading of nuclei. At places, highly dysplastic squamoid cells with enlarged vesicular nuclei and prominent nucleoli were present along with dispersed melanophages. These findings made it necessary to rule out melanoma. HMB -45 and S-100 are currently the two most commonly used immunomarkers to identify melanocytes and melanoma [3].

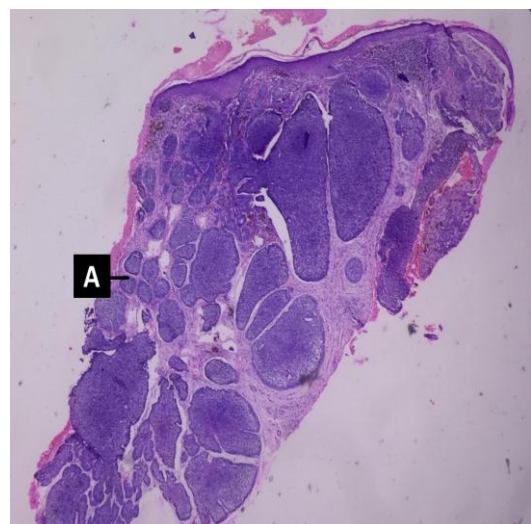


Figure 3.1: Low power view
A) Basaloid cells

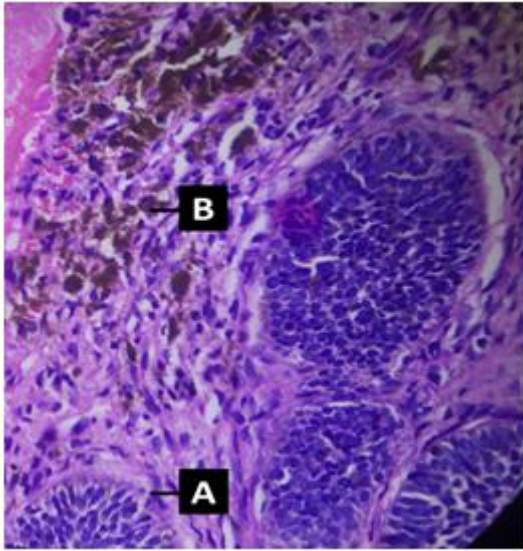


Figure 3.2: High power view

A) Peripheral palisading B) Pigmented melanocytes

Various other clinical BCC presentations over the head and neck usually appear as slow growing, well-defined papules or nodules along with presence of telengectesias above the line joining the angle of the mouth and ear lobule. The lesion is locally destructive, which could lead to serious disfigurement, but chances of metastasis are rare. In accordance with the clinical presentation and aggressive potential there are multiple variants such as nodular (with/without ulceration), sclerosing, pigmented, superficial, baso-squamous. [6]

Treatment of basal cell carcinoma is surgical excision and for larger and more aggressive cases, Mohs micrographic surgery (MMS) is preferred [4].

Radiation therapy was found to be associated with an increase in the long-term risk of both basal and squamous cell carcinomas, especially if the exposure occurs before the age of 20 years. These risks might vary based on the degree sun exposure or response of the host to the same [5].

Additionally, although the gold-standard treatment is surgical excision, many other non-invasive methods have been adopted for the treatment of pigmented BCC, particularly in cases where surgical line of management is not beneficial. Immunomodulatory agents were chosen as one of the various lines of non-invasive therapy, namely 5% Imiquimod cream, which is an approved source of topical treatment for superficial BCC. Successful treatment with 5% Imiquimod cream was reported in patients with multifocal pigmented BCCs; thereby expanding the range of various different treatment modalities that can be made available to these patients. [7]

3. Conclusion

These cases are a rare subtype and an unusual presentation of Basal cell carcinoma. Correct approach to differential diagnosis is required to give appropriate treatment. Patient education is essential about this condition, so that prompt action can be taken to improve survival and quality of life.

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