Pigmented basal cell carcinoma: A rare case report

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Abstract
Basal cell carcinoma is the most common skin cancer mainly caused by prolonged exposure to ultraviolet rays. It is also known as rodent ulcer or basal cell epithelioma. Pigmented basal cell carcinoma is a rare variety of basal cell carcinoma. It typically affects older age group. Most important risk factors are fair skin, inability to tan, and chronic exposure to sunlight. 90% of cases occur in head and neck and about 10% of these involve the eyelids. It is the most common malignant eyelid tumour, accounting for 90% of all cases, most frequently arises from lower eyelid followed by medial canthus, upper eyelid and lateral canthus. Among all variant of BCC, pigmented BCC variety is about 6%. Histopathologically, it is similar to nodular BCC with increased melanisation. we report a rare case of pigmented BCC that we encountered in our setup.

Keywords: Basal cell carcinoma, Pigmented basal cell carcinoma, Ultraviolet presentation.

Introduction
Basal cell carcinoma (BCC) also termed as rodent ulcer is a type of skin carcinoma. It is one of the most common form of human malignancy.\textsuperscript{1} It has a lifetime risk of 12%\textsuperscript{2} 12% to 16% of BCCs occur on the periocular skin.\textsuperscript{3,4} It is usually a slowly enlarging tumour and symptoms are rare.\textsuperscript{5}

It is one of the commonest carcinoma amongst Caucasians but rare among dark skinned peoples. It rarely spreads to other tissues, unlike melanomas. Basal cell carcinoma usually spreads to the surrounding skin. Although this is generally slow, failure to get an appropriate treatment can lead to a considerable area of skin being destroyed and thus requiring plastic surgery.\textsuperscript{5} It typically affects older age group. Most important risk factors are fair skin, inability to tan, and chronic exposure to sunlight. 90% of cases occur in head and neck and about 10% of these involve the eyelids. It is the most common malignant eyelid tumour, accounting for 90% of all cases, most frequently arises from lower eyelid followed by medial canthus, upper eyelid and lateral canthus. It is a slow growing, locally invasive but non metastasizing tumour.\textsuperscript{1} Tumour near the medial canthus are more prone to invade orbit and sinuses and it is difficult to manage apart from the tumour arising from elsewhere and also carry the greater risk of recurrence. Tumour that recur following incomplete treatment tend to be more aggressive.\textsuperscript{1}

Among all variant of BCC, pigmented BCC variety is about 6% and histopathologically it is similar to nodular BCC with increased melanisation.\textsuperscript{6}

This case report describes a rare case of pigmented BCC that we encountered in our setup.

Case Report
A 80-year-old male patient, farmer by occupation came with complaints of ulceration of lower eyelid and nasal crease on the left side since 1 years (Fig. 1). He had not taken any treatment for same. There was gradual increase in size of the ulcer. No history of bleeding or discharge from an ulcer.

On examination, there was a single ulcer over left upper “eyelid” 5 cm × 3 cm with rolled out edges without any bleeding or discharge and ulcer was not fixed to the underlying structure (Fig. 1). Investigations revealed, hemoglobin 12 g%, total leukocyte counts 6700/cu.mm, platelets 2.04 lac/cu.mm, random blood sugar 105 mg/dl.

Histopathological examination was done. H and E stain of section of left lower eyelid in the left medial canthus near the nose showed on one slide the covering being stratified squamous epithelium and was acanthotic, on focus the tumor cells were found in islets. The tumor composed of basoloid cells, with palisading of similar basoloid cells with hyper chromatic pleomorphic nuclei surrounding the central area of cells. Melanin pigments and melanophages were seen along with massive infiltration of neutrophils with necrotic debris and bacterial colonies. These findings confirmed the diagnosis of pigmented BCC (Fig. 2).

The patient was advised for MRI of the orbit and face with contrast study. It showed the presence of a solid lesion in the left side of the face, infraorbital region adjacent to the medial canthus of the left eye. The lesion involved the skin and subcutaneous fatty tissue. Inferior eyelids were involved. The muscle layer was spared. No extension of the lesion into the orbit or the paranasal sinuses. It measured 10 mm in AP and 25 mm in transverse and 27 mm in craniocaudal diameters (Fig. 3).

Once confirmed, wide excision with full thickness skin grafting was performed. Graft was harvested from the forehead and later the donor site was covered with a rotational paramedic flap (Fig. 4). The remaining defect was covered by Mustarde cheek rotational flap (lower eyelid defects are reconstructed using a mustarde cheek rotational flap. This large skin muscle flap is rotated from the cheek to repair large lower eyelid defects) (Fig. 5). Patient was followed on first post operative day and seventh post-operative day. Post-operative follow-up on 7th day showed
healthy wound margins. The patient was advised for suture removal on 14th day. Further flap detachment and lid reconstruction has been planned on 21st post-op day.

Fig. 1: Single ulcer over left upper “eyelid” 4 cm × 3 cm with rolled out edge.

Fig. 2: pigmented BCC.

Fig. 3: MRI of the orbit and face

Fig. 4: Graft from the forehead covered with a rotational paramedic flap.

Fig. 5: Mustarde cheek rotational flap.
Bowen’s disease, keratoacanthoma, leukoplakia, queyrat erythroplasia, radiation dermatitis\textsuperscript{17} and xeroderma pigmentosum.\textsuperscript{18}

BCC, can also occur as a feature of hereditary conditions like nevoid BCC syndrome also known as Gorlin’s syndrome\textsuperscript{19-20} or Bazex’s syndrome, Rombo syndrome and unilateral basal cell nevus syndrome. Nevoid BCC syndrome is an inherent autosomal dominant condition, characterized by a range of developmental anomalies and a predisposing condition to various tumors. Patient with Gorlin’s syndrome mostly presents with a broad nasal root, low intelligence, multiple jaw cysts, palmar pits.\textsuperscript{20}

In this patient, the diagnosis pointed towards BCC. On the basis of history taking, clinical examination and investigations we ruled out the possibility of all the syndrome. The patient was operated and managed with wide excision and full thickness skin graft.

Conclusion

BCC tend to occur in a syndrome complex, associated with a number of autosomal dominant inherited disorders and hence prior to the management of the same, the presence of the syndrome must be ruled out.

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Abbreviations: BCC- Basal cell carcinoma, H and E-Haematoxylin and eosin, AP- Antero-posterior

Conflict of Interest: None.

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