

Periocular basal cell carcinoma in a young school teacher

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ABSTRACT

A 34-year-old female patient presented with a nodular mass near the right lateral canthus since 1 year. The mass was nodular, pigmented with irregular surface and had a very well-defined margins. A wide excisional biopsy was done for the same. Histopathology reported a basal cell carcinoma (BCC) of the skin. BCC is very rare in young females and also the site of occurrence in this case was unusual. The mass was excised with a safety margin of 3 mm to ensure complete removal.

Key words: Basal cell carcinoma, Mohs micrographic surgery, non-Mohs technique

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INTRODUCTION

Basal cell carcinoma (BCC) is the most common skin malignancy occurring in head, neck, and face area. They are usually slow growing, nonmetastatic malignant tumors with highest incidence at the sixth and seventh decade of life. The lesions are more common at the medial canthus (38.4%), lower lid margin (37.6%), eyebrow (9.4%), and lateral canthus (7.1%). As per literature, BCC is rare in dark-skinned individuals and men are affected twice as often as women. We are reporting a case which was unusual in its presenting age, sex, location, and without predisposing factors.

CASE REPORT

A 34-year-old woman, teacher by occupation, presented with a painless progressive oval mass at the lateral canthus of the right eye since 1 year. The swelling to start with was of the size of a mole at the lateral canthus which increased to

the present size of a pea and used to bleed intermittently on touch [Figure 1].

On examination, a single nodular mass of size 18 mm × 11 mm which was pigmented, with well-defined margins was noted. The overlying skin was firmly adherent, irregular, and pinkish in color due to telangiectatic surface. The mass was firm in consistency on palpation with no signs of inflammation. The visual acuity, extraocular movements, and fundus examination were within normal limits. The systemic examination did not reveal any preauricular lymphadenopathy or nodular lesions elsewhere in the body. The patient did not have any abnormal facies or any abnormal pigmentation of the skin. Routine blood investigations, peripheral smear, and computed axial tomography of the orbit were within normal limits.

Surgical excision of the lesion was planned. A 3 mm safety margin was marked around the mass; an incision was taken along the markings under local anesthesia. The lesion was then meticulously dissected out, and no adhesions to the surrounding tissues were found. The mass was then excised in toto along with the 3 mm skin frill. Reconstruction of

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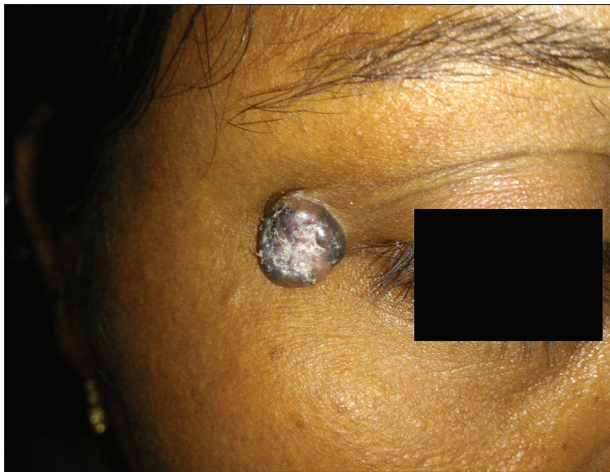


Figure 1: Clinical appearance of periocular basal cell carcinoma at lateral canthus in the right eye

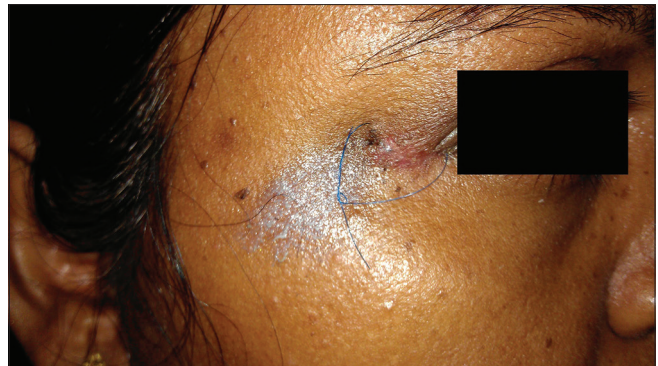


Figure 2: Eighth postoperative day

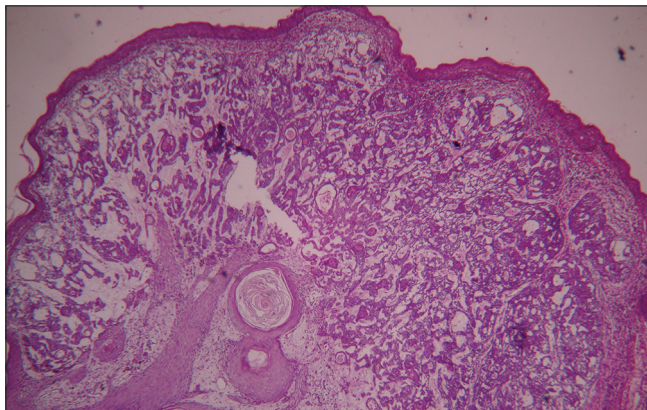


Figure 3: Photomicrograph showing tumor mass in the dermis with normal epidermis (H and E, $\times 10$)

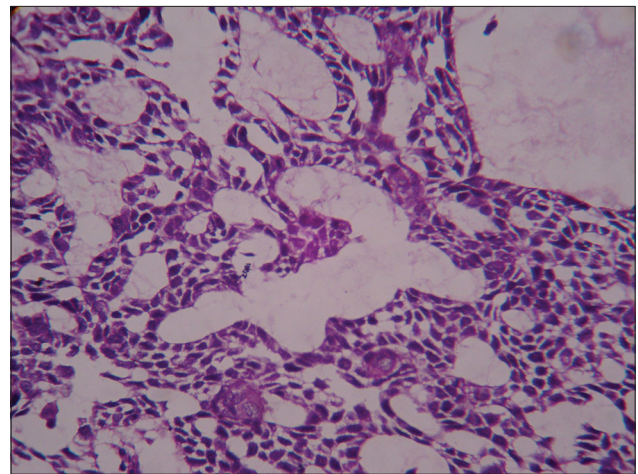


Figure 4: Photomicrograph showing cuboidal cells with hyperchromatic nuclei arranged in glandular pattern (H and E, $\times 40$)



Figure 5: (a) Follow-up after 1 year. (b) Follow-up after 2 years

the wound was done by direct closure in two layers with 6-O vicryl and 6-O prolene without tension [Figure 2].

Microscopy of the mass revealed that the epidermis had thinned out and showed focal acanthosis. The subepithelial tissue showed a tumor mass composed of cells arranged radially around islands of loose connective tissue (mucoïd) giving a lace-like pattern with intervening strands in between. The cells had nuclei showing mild anisonucleosis, at places lumina were surrounded by darker cells resembling glandular cell. Some foci showed peripheral palisading with some

squamous differentiation. Dense lymphocytic infiltration was also noted. The histopathologic features were consistent with BCC of the skin adenoid type [Figures 3 and 4]. The suture removal was done on the 8th postoperative day. The patient was closely followed up for 2 years and is still under follow-up.

DISCUSSION

BCC is the most common type of periocular malignancy.^[1] BCCs are locally invasive nonmetastasizing tumors. The age of presentation is in the fourth to seventh decade, average age is the sixth decade. In younger age group, it is usually associated with Xeroderma Pigmentosa and Gorlin-Goltz syndrome. The most common risk factor is exposure to the ultraviolet (UV) light (UVA and UVB) which causes activation of oncogenes or inactivation of tumor suppressor genes leading to tumor initiation and progression.^[2] The recommended treatment is surgical excision by Mohs micrographic surgery (MMS) which is considered to be the gold standard for BCC, but non-Mohs technique is equally effective.^[3-6] The goal of MMS is to excise most of the malignant tissue while preserving the healthy one. In MMS, after excision of the visible tumor, thin horizontal sections from the margins are microscopically examined, and the process

of re-excision is repeated until no tumor cells are observed. Non-Mohs technique involves excision of the surrounding frill of normal tissue which is the safety margin, to avoid recurrence. In all the studies on non-Mohs technique, BCC excision was done with a safety margin which varies from 2 to 5 mm and the average clinical safety margin was taken to be 2–3 mm.^[7]

The mass in our case was <20 mm and also our center lacks facility required for MMS; hence, we did a non-Mohs excision. It was done with a 3 mm safety margin and primary skin closure without tension,^[6] which gave us a good cosmetic outcome. There was no recurrence of the lesion on the 6th month, 1 year [Figure 5a], and 2nd year [Figure 5b] follow-up and the patient is undergoing regular follow-ups.

Hamada *et al.* concluded that conventional non-Mohs technique provides reliable and cost-effective surgical treatment for BCCs. They found that a safety margin of 4 mm in noninfiltrative type of BCC gave a zero recurrence rate. Furthermore, MMS is time-consuming and is generally not available at most of the centers.^[6] Chadha and Wright found that recurrence rate after conventional excision of BCCs with a 2 mm safety margin, in well-demarcated nodular carcinomas, was comparable with published results even in the absence of Mohs.^[8] Similarly, Gulleth *et al.* observed 95% cure rate after a 3 mm surgical safety margin for BCCs of 20 mm or smaller size tumors.^[9] Auw-Haedrich *et al.* concluded in their study that all lesions on the eyelid or canthus require a clinical safety margin of 2 mm in most of the cases in sclerosing BCC. It may not always be enough to prevent recurrence, hence, regular clinical follow-up is advised.^[7]

BCC is common in older age group, and only a single case in a young white pilot with predisposing factor of UV exposure has been reported.^[10] In our patient, who was a young female, no predisposing factors were found responsible for the occurrence of carcinoma. BCC tumors which have a low recurrence rate can be very well-managed by non-Mohs excision with a safety margin of 3–4 mm.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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