



PERIOCCULAR BASAL CELL CARCINOMA---REVIEW OF LITERATURE AND 3 CASE REPORTS

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ABSTRACT

Introduction:BCC is a malignant cutaneous neoplasm that accounts for nearly 80-90% of non melanoma skin cancers. Review of literature:Including its risk factors,classification &clinical features.

Management: Primarily by surgical techniques like Tenzel flap and Mustardee flap with adjuvant chemotherapy,radiotherapy and other modalities.

Case report : of 3 individual patients with tailored treatments.

Conclusion : with prognosis and prevention.

KEYWORDS : Enface Frozen Section,tenzel Flap,mustardee Flap.

INTRODUCTION

Periocular basal cell carcinoma is a malignant cutaneous neoplasm capable of extensive tissue destruction that has the potential to cause death by invasion of CNS.

Approximately 5-10% of all skin cancers occur in the eyelids and BCC accounts for nearly 80-90% of all non melanoma skin cancers affecting the periocular area.It is commonly seen in people between the 5th and 8th decades of life. The average age at diagnosis is nearly 60 years.

RISK FACTORS OF BCC

- UV radiation
- AIDS
- Arsenic exposure
- Ionising radiation
- Thermal burns
- Scars
- Inherited genetic disorders like

Xeroderma pigmentation

Albinism

Bazex syndrome

Rombo syndrome

Various data support the notion that the hair follicle stem cell is the progenitor cell of BCC.

CLASSIFICATION & CLINICAL FEATURES OF PERIOCCULAR BCC

- The lesion grows as the tumor cells proliferate and extends into the dermis in a slow but continuous manner.
- The lesion may become necrotic at the centre due to poor blood supply and then it may slough and bleed.

TYPES

- **Nodular:**55-75% of all BCCs.Dome- shaped & firm on palpation.Painless unless infected or ulcerating.
 - **Infiltrating:**15% of periocular BCCs,usually presents as a pale,indurated,ill-defined patch.
 - **Superficial-**10%of all BCCs. Multiple erythematous patches resembling an area of dermatitis.
 - **Micronodular-**6% of all eyelid BCCs.
 - **Sclerosing or morpheic-** Represents nearly 4%of all BCCs. Usually appears as an ill defined, indurated, shiny, white pink to yellow plaque with a usually intact skin surface and retraction of the tissue.Usually invades deep in dermis and secondary skin malposition in common.
 - **Cystic**
 - **Pigmented-** Nearly 1% of eyelid BCC due to deposits of melanin.
- Linear-A recently described entity.

SURGICAL MANAGEMENT

- **TENZEL FLAP-**A semicircular rotational flap is used when defect is bordering on 50%.The procedure allows borrowing of adjacent temporal tissue and rotate it in at the lateral site to provide enough flexibility to close the defect.The diameter of the flap should be about twice of the defect.The semicircular flap is widely undermined. Maximal rotational movement is achieved by lateral canthotomy and severing the inferior limb of the lateral canthal tendon along with orbital septum and retractors.The lid defect is closed primarily and the flap is rotated and anchored to the periosteum of the lateral orbital rim to recreate the lateral canthus.The donor site is reapproximated with deep sutures.
- **MUSTARDEE CHEEK ROTATION FLAP-**Lower eyelid defects involving the entire lower eyelid may be reconstructed using this.The large skin muscle flap is rotated from the cheek--incisions begin at lateral canthal angle,extends upward onto the temple,and swings posteriorly just anterior to the ear and then inferiorly across the mandible.

OTHER MODALITIES OF TREATMENT

- Chemotherapy
- Radiation
- Cryotherapy
- Photodynamic therapy
- CO₂ Laser
- Recombinant alpha-2 interferon are alternate or adjuvant modalities in case of extensive lesion, critical location,perineural and metastatic spread ,aggressive growth pattern,patients unable to undergo surgery,decreased life expectancy.They have demonstrated a recurrence rate ranging from 5-100%.

3 CASE REPORTS OF BCC PATIENTS ARE PRESENTED AS UNDER-

All the patients presented to eye OPD with chief complaint of pigmented lesion on eyelids.The lesions were small initially but enlarged over time.No pain or active bleeding from lesion.

On examination ocular findings were not significant and were age related normal findings. Patients were referred to Plastic Surgery Deptt. for further management.



FIGURE1.Pigmented 2cm x 2cm lesion at the lateral canthus enlarging and spreading towards the lower eyelid.He first noticed a small lesion 4 years back . He underwent lesion excision and Tenzel Flap.As the excision margin is positive for tumour cells after en face frozen section he has been planned for Adjuvant Radiotherapy.



FIGURE 2. Pigmented 3x2cm lesion slowly enlarging at the lateral canthus of the left eye over a period of 3 to 4 years. It was excised and repaired with Mustardee flap.



FIGURE 3. 4x4cm lesion rapidly enlarging over a year at the lateral canthus of the left eye and repaired with Mustardee flap.

CONCLUSION

Prognosis of BCC is good. 5 year cure rate of upto 98% are obtainable with current surgical techniques.

Prevention includes early use of sun-screen, sunglasses and hats with brims. Periocular BCC can be assessed clinically in the OPD and confirmed post excision by biopsy.

REFERENCES

1. Cook BE Jr, Bartley GB: Epidemiologic characteristics & clinical course of patients with malignant eyelid tumors in an incidence cohort in Olmsted County, Minnesota. *Ophthalmology* 1999;106:746-750.
2. Margo CE, Waltz K: BCC of the eyelid & periocular skin. *Surv Ophthalmol* 1993;38:169-192.
3. Kopf AW: Computer analysis of 3531 BCCs of the skin. *Nippon Hifuka Gakkai* 2 ashi 1979;89:897-911.
4. Payne JW, Duke JR, Butner R, Eifrig DE: BCC of the eyelids. A long term follow-up study. *Arch Ophthalmol* 1969;81:553-558.
5. Rahbari, Mehregan AH: BCC in children & teenagers. *Cancer* 1982;49:350-353.
6. Pollack SV, Goslen JB, Sherertz EF, Jegasothy BV: The biology of basal cell carcinoma: a review. *J Am Acad Dermatol* 1982;7:569-577.
7. Tilli CM, Van Steensel MA, Krekels GA, et al. Molecular aetiology and pathogenesis of BCC. *Br J Dermatol* 2005;152:1108-1124.
8. Alejandra A. Valenzuela & Timothy J. Sullivan: BCC in the eyelid, *Alberts & Jakobiec's Principles and Practice of Ophthalmology*, 3rd Edition Ch:249:3279-3292.