

Research Article**Clinicopathological Study of Malignant Eyelid Tumours****¹Dr. Dandala Padma Prabha, ²Dr. Polimera Padmavathi, ³Dr. Mohd Ather**¹Assistant Professor, Sarojini Devi Eye Hospital, Regional Institute of Ophthalmology, Hyderabad -500028, Telangana State, India.²Assistant Professor, SDEH/ OMC, Hyderabad, Telangana State, India.³Incharge Professor, SDEH/ GMC, Hyderabad, Telangana State, India.***Corresponding author**

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Abstract: A retrospective clinicopathological study of malignant eyelid tumors to study various demographic factors, clinical patterns and histopathological variants. Material and methods: Cases presenting to the department of Oculoplastics and Orbital Diseases was done at Sarojini Devi eye hospital, Hyderabad were studied over a period of three years. We analysed and followed 85 histologically proven cases of malignant eye lid tumours during this period. Benign lesions were excluded from the study. In results Females were more commonly affected and people in fifth and seventh decades of life were predominantly affected. Sebaceous cell carcinoma (SbCC) was the commonest tumour accounting for 67.05%, Basal Cell Carcinoma (BCC) for 27.05% and squamous cell carcinoma of lid occurred least frequently. Most of the cases were successfully treated surgically (82 out of 85) by a margin clearance of 4-6mm. The significance of these observations is discussed.**Keywords:** SbCC-Sebaceous Cell Carcinoma; BCC- Basal Cell Carcinoma; SqCC- squamous cell carcinoma.

INTRODUCTION

Eyelid malignancies are of varied histological types and the western and Asian data have considerable variations in case distribution and presentation. Although the incidence of eyelid malignancies is increasing, [1, 2, 3, 4, 5], their global distribution is varied and remains under-characterized. It is reported, for example, that 90% of the malignant eyelid tumours are basal cell carcinomas (BCC) while other malignant forms like sebaceous cell carcinoma (SbCC) and squamous cell carcinoma (SqCC) are rare [3,4,6]. However, case series reported from Asian countries have shown a generally higher prevalence of SbCC [1, 2, 4, 5, 7]. It is still unclear whether this increased prevalence of SbCC reflects a higher incidence of SbCC, a lower incidence of BCC or differential survival rates associated with these tumours that eventually favor a relative accumulation of SbCC in Asian populations. The aim of the study was to review our experience with a series of 85 eyelid malignancies proven histologically.

MATERIAL AND METHODS

The present study includes all consecutive cases of eyelid malignancies that reported to the Department of Oculoplastics and Orbital diseases,

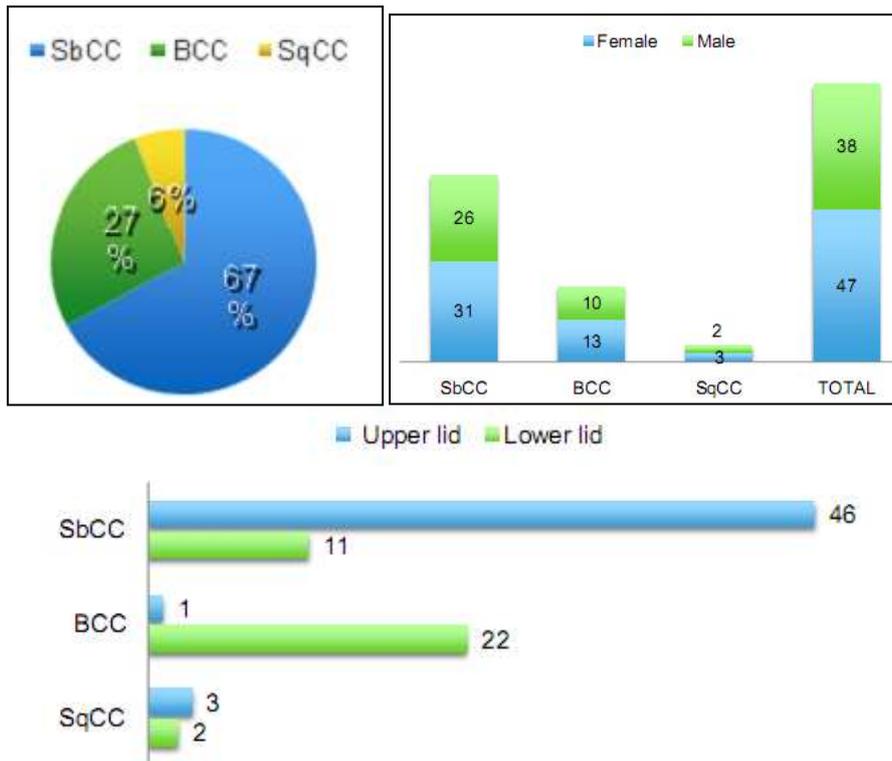
Sarojini Devi Eye Hospital, Regional Institute of Ophthalmology Hyderabad in the state of Telangana, a tertiary health care facility in South India. We included cases that reported to the study centre over a three year period starting from February 2012. During this study period, a total of 85 cases of eyelid malignancies were identified. In each case, the clinical diagnosis of eyelid malignancy was confirmed by histopathology. The cases were treated with wide local excision with a 4-6mm margin of normal tissue and an appropriate combination of lid reconstructive procedures.

RESULTS

In our study we encountered three types of eyelid malignancies, sebaceous cell carcinoma, basal cell carcinoma and squamous cell carcinoma.

Age and Sex Distribution

People more than 50 years is the most commonly affected age group accounting for 79 percent and patients of less than 40 years constituted 3.52 percent. Average age of presentation for SbCC is 64.21 years and for BCC 58.78yrs. Females accounted for 53 percent and males 47 percent. Female preponderance was noted for all three varieties of malignancies.



Lid Involved

Right eye was involved in 51.76 percent of cases and Left eye in 48.23 percent. Upper lid is predominantly involved in 82.45 percent of cases with sebaceous gland carcinoma. Lower lid is involved in 95.65 percent of cases of Basal cell carcinoma.

Sebaceous gland carcinoma is the most common lid malignancy in our study accounting for 67.05 percent (57 cases). Pre auricular lymph node enlargement was seen in two cases of Sebaceous gland carcinoma and submandibular lymph node enlargement in addition to it, in one case. 3 cases were recurrences which were managed.

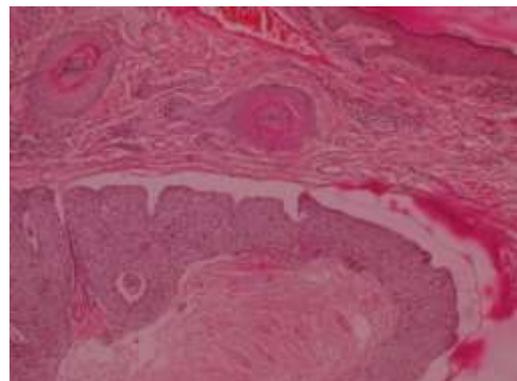


Fig 2: Histopathological picture of SbCC



Fig 1: Upper lid sebaceous cell carcinoma

Basal cell carcinoma was the second common lid malignancy in our study and almost exclusively involved lower lid. BCC accounted for 27.05 percent of cases (23 cases). Recurrence was noted in one case after 2 years of initial surgery and two patients presented with extensive necrosis, infection and myiasis.



Fig 3: Lower lid basal cell carcinoma

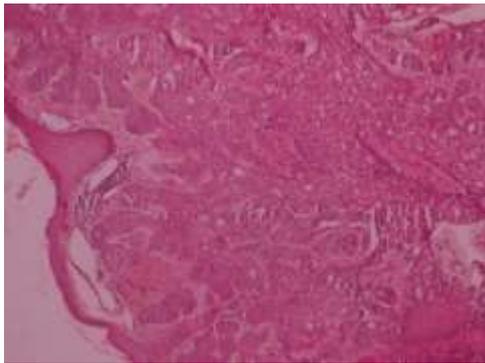


Fig 4: Histopathological picture: basal cell carcinoma

Squamous cell carcinoma was the least common variety of lid malignancy in our series (3cases). One case needed enucleation because of involvement of ocular coats. The most common presentation in all varieties of lid malignancies is presence of swelling, ulceration, conjunctival congestion and watering.

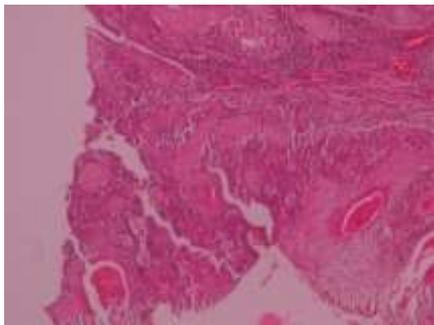


Fig 5: Histopathological picture of squamous cell carcinoma showing 'keratin pearls'

MANAGEMENT

Out of 85 cases 82 cases were treated surgically. All specimens were sent for Histopathological confirmation and margin clearance. Wide excision with a margin of 4-6mm normal tissue followed by lid reconstruction by split skin grafts, tarso conjunctival flap, Glabellar rotational flap and full thickness lid sharing procedures (Cutler - Beard). A margin clearance of 4-6mm was sufficient for most of the cases. Revision surgery had become necessary for 3 cases only. In cases where there was extension of tumour in to the orbit exenteration was carried out.

The 3 cases which presented with recent tumour enlargement, secondary infection and myiasis were treated conservatively with antimicrobials and radiotherapy as they were not fit for surgery.



Fig 6: Glabellar flap



Fig 7: Lower lid SbCC



Fig 8: Tarso conjunctival flap



Fig 9: Lid sharing procedure



Fig 10: After release of flap

DISCUSSION

Our study provides further evidence in favor of a higher prevalence (30-40%) of SbCC in India. In countries like the USA and Australia, the prevalence of this condition is reported to be 1.5% and 3.8%, respectively. However, three Indian studies, including the present one, as well as one study each from Japan and Taiwan demonstrate that it is the SbCC that is preferentially more in Asian populations [1, 7]. Thus, we reemphasize that SbCC should be actively searched for in cases of eyelid malignancies in Asia. Elderly patients presenting with chalazion and chronic blepharo-conjunctivitis should be subjected for thorough evaluation for the presence of SbCC.

Presence of mass alone is the most common presenting symptom for all three varieties of eye lid malignancies. The size of the tumour at the time of diagnosis did not vary by type of malignancy but the rate of tumour growth was strongly associated with the type of malignancy. BCC is the slowest growing tumour and SqCC the fastest. Therefore, given the estimated faster rate of tumour growth and the higher mortality associated with it, SbCC may deserve a more aggressive treatment protocol.

CONCLUSION

Ophthalmologists especially in South India should be aware of the higher prevalence of sebaceous cell carcinoma and an elderly patient presenting with lid swelling be thoroughly evaluated for the presence of malignancy.

REFERENCES

1. Abdi UN, Tyagi V, Maheshwari V, Gogi R, Tyagi SP; Tumors of eyelid: A clinico pathologic study. *J Indian Med Assoc*, 1996; 94: 405-9,416,418.
2. Abe MY, Ohnishi Y, Hara Y, Shinoda Y, Jingu K; Malignant tumor of the eyelid-Clinical survey during 22-year period. *Jpn J Ophthalmol*, 1983; 27: 175-84.
3. Al-Buloushi A, Filho JP, Cassie A, Arthurs B, Burnier MN Jr.; Basal cell carcinoma of the eyelid

in children: A report of three cases. *Eye*, 2005; 19: 1313-4.

4. Shields JA, Demirci H, Marr BP, Eagle RC Jr, Shields CL; Sebaceous carcinoma of the eyelids: Personal experience with 60 cases. *Ophthalmology*, 2004; 111: 2151-7.
5. Wang JK, Liao SL, Jou JR, Lai PC, Kao SC, Hou PK *et al.*; Malignant eyelid tumors in Taiwan. *Eye*, 2003; 17: 216-20.
6. Ni C, Searl SS, Kuo PK, Chu FR, Chong CS, Albert DM; Sebaceous cell carcinomas of the ocular adnexa. *Int Ophthalmol Clin*, 1982; 22: 23-61.
7. Sihota RK, Tandon SM, Betharia SM, Arora R; Malignant eyelid tumors in an Indian population. *Arch Ophthalmol*, 1996; 114: 108-9.
8. Jahagirdar SS, Thakre TP, Kale SM, Kulkarni H, Mamtani M; A clinico pathological study of eyelid malignancies from central India. *Indian J Ophthalmol*, 2007; 55: 109-12.