



MALIGNANT EYELID TUMOURS IN A TERTIARY CARE CENTRE IN NORTH EASTERN INDIA : A HISTOPATHOLOGICAL PROFILE

Pathology

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ABSTRACT

Purpose : To analyze the data regarding the demography, relative frequency and histopathological profile of eyelid malignancies in a tertiary care centre in North Eastern India.

Study design : Observational study conducted for a period of 1 year from April 2018 to March 2019 in the Department of Pathology, GMCH.

Subjects and methods : Patients with definite eyelid masses / suspicious tumours involving the eyelid and excised tissue masses sent for histopathological examination were selected for the study.

Results : A total of 60 cases were evaluated, of which 15 cases (25%) were malignant eyelid tumours. The most frequent malignant tumours included Basal cell carcinoma and Sebaceous gland carcinoma. Single case each of squamous cell carcinoma and adenoid cystic carcinoma were also included. The most common age group for malignant tumours was 61 – 70 years with the mean age at presentation being 60.5 years.

Conclusion : Basal cell carcinoma was the most common malignant tumour in this part of the country although, the incidence of Sebaceous carcinoma is also quite high in this region, only next to basal cell carcinoma.

KEYWORDS

eyelid tumours, histopathological, malignant

INTRODUCTION

Several pathologic processes involving the eyelids are treated by the ophthalmologist, and a high percentage of surgically excised ophthalmic specimens submitted for histopathologic evaluation are obtained from this site. [1] In spite of being a small organ, the eyelids contain numerous histological elements that can be the origin of both benign as well as malignant lesions. Malignancies in the eyelid account for approximately 5 - 10 % of all skin cancers. [2] These lesions are numerous due to the unique anatomical features of the eyelid as all the skin structures and its appendages, muscle, modified glands, and conjunctival mucous membrane are represented in the eyelid. The present study was undertaken to evaluate the histopathological profile of malignant eyelid tumours in a tertiary care centre in northeast india.

MATERIALS & METHODS

This is an observational study conducted for a period of 1 year from April 2018 to March 2019 in the Department of Pathology, GMCH. The cases were selected from the specimens of clinically diagnosed and / or clinically suspected cases of eyelid tumours or lesions sent for histopathological examination. Patients with intraocular tumours and those that were found to be of inflammatory etiology were excluded from the study. A total of 60 cases of surgical specimens of eyelid lesions obtained from patients of Regional Institute of Ophthalmology were analysed. A detailed history of each patient regarding age, chief complaints and other relevant findings were taken. Slides stained with Haematoxylin and Eosin stain were examined microscopically for detailed histopathological findings and final diagnosis was given.

RESULTS

Out of the total 60 cases of eyelid masses, fifteen cases (25%) were malignant while the remaining forty - five cases (75%) were benign.

In the malignant lesions group, there were 7 males and 8 females. The male to female ratio being 1 : 1.14.

Basal cell carcinoma (53.33%) was the predominant malignant eyelid tumour followed by Sebaceous Carcinoma (33.33%), Squamous cell carcinoma and Adenoid cystic carcinoma (6.66% each).

The highest prevalence of malignant eyelid lesions was observed in the age group of 61 - 70 years (53.33 %) with the mean age being 60.5 years, followed by the age group of 51 - 60 years (40%).

Out of the 8 cases of Basal cell carcinoma, 7 were found to occur in the

lower eyelid. Among the 5 cases of Sebaceous Carcinoma, 4 were found to arise in the upper eyelid. Single case each of Squamous cell carcinoma and Adenoid cystic carcinoma were found to occur in the lower eyelid.

Type	Number	%	Male	Female
Basal cell carcinoma	8	53.33%	3	5
Sebaceous carcinoma	5	33.33%	2	3
Squamous cell carcinoma	1	6.66%	1	0
Adenoid cystic carcinoma	1	6.66%	1	0

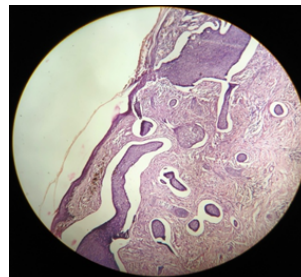


Fig 1 : Photomicrograph showing basal cell carcinoma with nests of basaloid cells with prominent retraction artifact. 10X, H & E

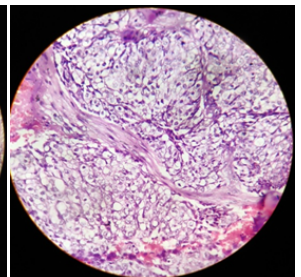


Fig 2 : Photomicrograph of Sebaceous Ca showing lobules of atypical cells with multi vesicular cytoplasmic clearing separated by fibrovascular stroma. 40 X, H & E.

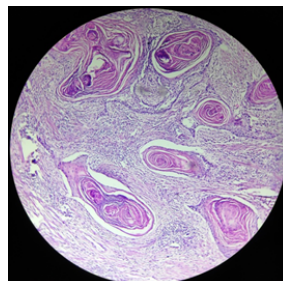


Fig 3 : Photomicrograph showing a well differentiated squamous cell carcinoma with abundant keratin formation. 40 X, H & E.

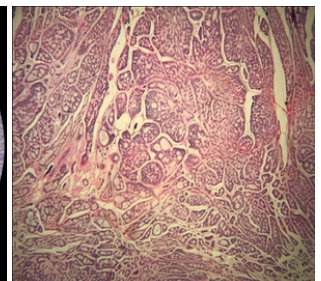


Fig 4 : Photomicrograph showing the predominant cribriform pattern of Adenoid cystic carcinoma. 4 X, H & E.

DISCUSSION

Basal cell carcinoma is the most common malignant eyelid tumour in the West [3 - 7]. In our series, the predominant malignant tumour was found to be Basal cell carcinoma (n = 8 ; 53.33%).

However , Sebaceous gland carcinoma (n = 5, 33.33%) was also observed to be almost as prevalent as Basal cell carcinoma in our study . These findings are consistent with many other studies done in Indian , Chinese and Japanese populations where the Sebaceous Carcinoma rates were 38.6% , 37.5% and 31.2% respectively [8 - 10]. In the United States , however , Sebaceous Carcinoma represents only 5% of all malignant neoplasms arising in the periocular region [11 , 12].

The rates of sebaceous carcinoma varies according to the ethnicity of the population and tends to be greater in Asians than in Europeans and Americans [8 , 13 , 14].

Although Asian countries have consistently reported a relatively lower incidence of Basal cell carcinoma , it still remains the most common eyelid malignancy . In our series , Basal cell carcinoma comprised majority of the eyelid tumours which is comparable to many other similar studies [13 , 15 - 20].

Basal cell carcinoma more commonly occurred in the lower eyelid (7 out of 8 cases ; 87.5 %) and sebaceous carcinoma was found to arise more commonly in the upper eyelid (80 %). This is in consistence with the studies done by Pornpanich et al [21], Wang J K et al [17] and Lee S B et al [11].

The predominant upper lid involvement in case of Sebaceous carcinoma is due to the greater number of meibomian glands in that region.

In case of Basal cell carcinoma , the lower eyelids are more affected probably due to the harsh effects of direct sunlight compared to the upper lids which remain protected by the eyebrows.

In our study , we also found that among the basal cell carcinomas , 62.5 % (5 out of 8) were female patients. Similar to our study , Chang C H et al [22] had noted that in their series , 71 % of basal cell carcinoma patients were females.

We also found sebaceous carcinoma to be more common in females (60 %) which is similar to the study done by Mohan BP et al [23] and others [12 , 24 , 25].

The age of patients with eyelid malignancy ranged from 31 – 80 years. The lowest age of 35 years was seen for a case of Adenoid cystic carcinoma and highest (71 years) was for Sebaceous gland carcinoma.

Concordance between clinical and histopathological diagnosis of malignant lid tumours was 76.9%.

CONCLUSION

From the present study , we can conclude that eyelid malignancies vary considerably in their histopathological profile. Also , the prevalence of Sebaceous carcinoma is quite high in this region , only second to Basal cell Carcinoma. But , since the time period of our study was limited , a more detailed study needs to be done on the incidence pattern , type and outcome of the eyelid malignancies in this part of the country.

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