



HISTOPATHOLOGY OF EYELID LESIONS- A STUDY AT RIMS,SRIKAKULAM

Pathology

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ABSTRACT

Background: Eyelid lesions are commonly encountered in histopathology practice and wide variety of lesions .We reported histological features of eyelid lesions in patients presenting to tertiary care centre in RIMS, Srikakulam, Andhra Pradesh.

Materials And Methods: It is a retrospective study was conducted in our hospital, which included a total of 40 eyelid lesions over a period of 2 years i.e. from January 2016 to December 2017.

Results: In this study we received unequal representation of male and female patients with a ratio of 1:1.5. Age of the patients ranged from 16 years to 72 years with mean age being 40-45 years. Most common benign lesion was intradermal nevus followed by chalazion while the most common malignant lesion was Meibomian carcinoma followed by squamous cell carcinoma.

Conclusion: Eyelid lesions were common in females. Intradermal nevus and chalazion were commonest benign lesions and Meibomian carcinoma was most common malignant tumor.

KEYWORDS

Intradermal nevus, chalazion, Meibomian carcinoma

INTRODUCTION

In histopathology practice, lesions of eye lid are not uncommon. Eyelids act as shields to human eye, which protects from injury. In spite of being a small organ, the eyelids contain numerous histological elements, that can be the origin of benign and malignant lesions. The eyelids are divided into cutaneous and conjunctival portions. The former is composed of stratified squamous epithelium and the latter of much thinner conjunctival epithelium. The histology of eyelid is unique and are composed of skin & subcutaneous tissue with appendages (sebaceous glands (Meibomian glands and glands of Zeis) apocrine glands (glands of Moll) and eccrine sweat glands, striated muscle (orbicularis oculi), tarsus and the palpebral conjunctiva. Hence the lesions of eyelid are diverse and different in behavior. Early histopathological diagnosis of eyelid lesions especially malignancies is crucial as many of the advanced tumors may cause cosmetic or functional disorders of eyelid or even distant metastasis. Benign epithelial lesions, cystic lesions and benign melanocytic lesions are very common. Benign cysts along the lid margin are relatively common. Adnexal and stromal lesions are less frequent. The global distribution of eyelid swellings vary remarkably and their incidence appear to be increasing. Eyelid lesions can be non-neoplastic or neoplastic. Most of them are benign in nature, but some are malignant and are quite similar to skin cancers. Of all skin cancers, 10% of them are located at eyelid level. Basal cell carcinoma is the most common malignant eyelid tumor in western countries. Whereas in Asia, the frequency of sebaceous gland carcinoma and squamous cell carcinoma are relatively high.

AIM

This study was done to know the proportion of various eye lid lesions at our hospital.

MATERIALS AND METHODS

This retrospective study was conducted in our hospital, which included a total of 40 eyelid lesions over a period of 2 years i.e. from January 2016 to December 2017. All the eyelid biopsies received during this period were formalin fixed, paraffin embedded and were cut at 4-5µ thickness and stained with Hematoxylin and Eosin. The patient details included were age, gender and histopathology diagnosis from histopathology register. Both non-neoplastic and neoplastic lesions were included in our study.

RESULTS

In this study we received unequal representation of male and female patients (17 vs. 23) with a male to female ratio of 1:1.3. Age of the

patients ranged from 10 years to 80 years with mean age being 40-45 yrs. Benign lesions are more common than malignant lesions. Most common benign lesions were intradermal nevus, chalazion followed by rhinosporidiosis while the most common malignant lesion was Meibomian carcinoma, followed by squamous cell carcinoma and Non-Hodgkin lymphoma.

Table 1: Incidence of benign lesions

Benign lesions	Number of cases
Pleomorphic adenoma	2
Pyogenic granuloma	2
Rhinosporidiosis	4
Intradermal nevus	6
Squamous papilloma	2
Chalazion	5
Pilomatricoma	2
Capillary hemangioma	2
Epidermal cyst	2

Most common benign tumor is intra dermal nevus followed by chalazion.

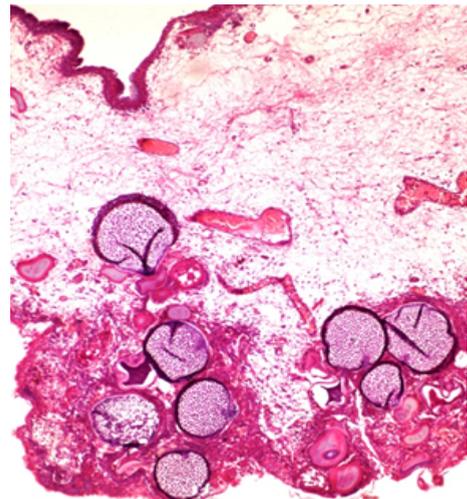


Figure 1: Rhinosporidiosis: Conjunctiva with multiple thick chitinous sporangia with spores (H&E X100)

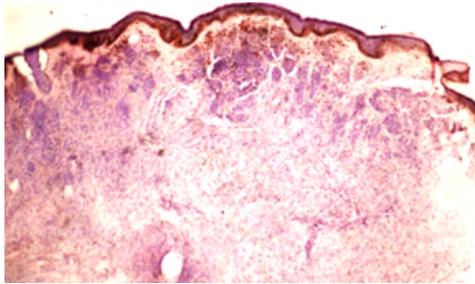


Figure 2: Intradermal nevus: Nevus cells confined to dermis (H&E X40)

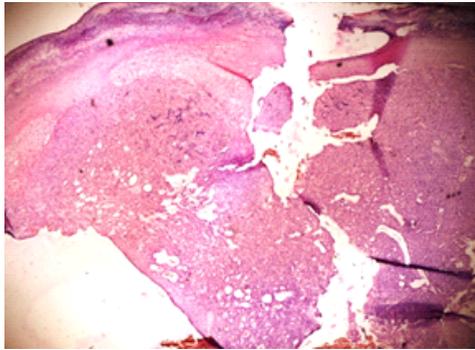


Figure 3: Capillary Hemangioma: Lobules with small capillary sized blood vessels (H&E X40)

Table 2: Incidence of malignant lesions

Malignant lesions	Number of cases
Meibomian gland carcinoma	6
Squamous cell carcinoma a. Moderately differentiated b. Poorly differentiated	4(2+2)
Non-Hodgkin lymphoma	3

In our study, Meibomian gland carcinoma is the most common malignant tumor, followed by squamous cell carcinoma, both of moderately and poorly differentiated type. We also reported 3 cases of Non-Hodgkin lymphoma. There was no evidence of basal cell carcinoma in our spectrum of eye lid lesions.

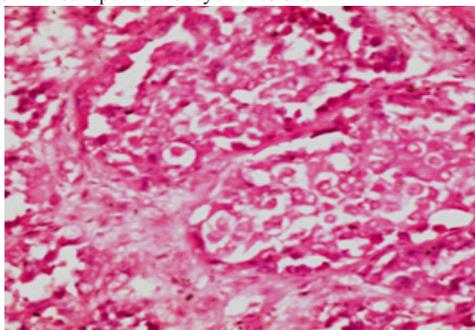


Figure 4: Meibomian gland carcinoma: Tumor lobules with microcystic pattern and foamy macrophages (H&E X400)



Figure 5: Non Hodgkin Lymphoma: Complete effacement with diffuse proliferation of lymphocytes (H&E X100)

Table 3: Incidence of Malignant Vs Benign lesions

Malignant	Benign	Total cases
13 (32.5%)	27 (67.5%)	40

Benign lesions were more common than malignant lesions

Table 4: Sex wise Incidence of eye lid lesions

Males	Females	Total
17 (42.5%)	23 (57.5%)	40

Both benign and malignant lesions were more common in females than males with male: female ratio of 1:1.5. Other studies also showed female predominance of eye lid lesions

Table 5: Age wise incidence

Age	Number of cases	Percentage
0-20 yrs	3	7.5
21-40 yrs	13	32.5
41-60 yrs	20	50
>61 yrs	4	10

In this study age distribution showed a peak incidence in 4th decade. Similar studies from Asia have reported mean age of presentation as 43.2 years in Bangladesh, 52.4 years in Thailand, 62.6 years in Taiwan. The findings of this study were similar to the findings of the Paul et al³ in which benign lesions were more common before 60 years of age and malignant lesions occurred in and after 6th decade.

DISCUSSION

Eyelid lesions encountered in routine histopathology practice are mostly non-neoplastic but can be neoplastic as well. Both benign and malignant lesions were common in females. Other studies also showed female predominance of eyelid lesions. In our study non-neoplastic lesions were most common than neoplastic lesions. Among neoplastic lesions, benign tumors were much common than malignant ones. Non-neoplastic lesions include inflammatory, cystic and infective lesions. Intradermal nevus(8) is the most common benign lesion as compared to South India Bhavya P.Mohan et al⁹ followed by Chalazion (5). Other benign lesions included were rhinosporidiosis(4) followed by pleomorphic adenoma, pyogenic granuloma, squamous papilloma, pilomatricoma, epidermal cyst and capillary hemangiomas have equal numbers of cases each 2. Meibomian gland carcinoma is the most common malignant tumor, followed by squamous cell carcinoma which is on par with other similar studies. Though basal cell carcinoma is the most common malignant tumor of the eyelid worldwide, in the present study meibomian gland carcinoma is the most common malignant tumor. Other malignant tumor in this study were Non Hodgkin lymphoma which is in correlation with Karan et al.

Table 6: Comparative studies

	SC(Meibomian)	SCC	NHL	BCC
Abdi Un et al ⁶	27.1 %	22.4%	0%	38.8%
Bhavya P et al ⁹	24.4%	14.6%	12.5%	22%
Karan et al ¹⁰	55%	11%	33%	0%
Present study	46.15%	30.76%	23%	0%

CONCLUSION

Eyelid lesions are diverse and vary in clinical presentation and prognosis. Few inflammatory and infectious lesions simulate neoplasm. Early and accurate diagnosis of these eyelid lesions is very important for timely management and prognosis.

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