

Eyelid Tumors in Siriraj Hospital from 2000-2004

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Objectives: To determine the relative incidence of eyelid lesions seen in Siriraj Hospital from January 2000-April 2004.

Study Design: Retrospective charts review

Material and Method: Two hundred and ninety-seven cases of eyelid lesions seen in Siriraj Hospital from 2000 to 2004 were analyzed.

Results: There were 53 (17.8%) inflammatory conditions, 212 (71.4%) benign eyelid tumors and 32 (10.8%) malignant eyelid tumors. These 32 malignant eyelid tumors included 13 sebaceous gland carcinomas, 12 basal cell carcinomas, 3 malignant melanomas, 2 squamous cell carcinomas, 1 apocrine adenocarcinoma and 1 metastatic carcinoma. Various flaps techniques or primary closures were used for reconstruction in 20 cases. Six cases needed exenteration.

Conclusion: The majority of eyelid lesions were benign eyelid tumors while malignant eyelid tumors contributed 10.8% of the total eyelid lesions. Sebaceous gland carcinoma was the most common eyelid tumor found in this present study that was consistent with other studies from Asian countries.

Keywords: Sebaceous gland carcinoma, Squamous cell carcinoma, Basal cell carcinoma

J Med Assoc Thai 2005; 88 (Suppl 9): S11-4

Full text. e-Journal: <http://www.medassocthai.org/journal>

Lesions of the eyelid include a variety of conditions that may be benign or malignant. Benign tumors usually do not interfere with normal lash growth, whereas malignant tumors can destroy normal eyelid margin architecture. Histopathologic examination is required although clinical accuracy is relatively high in discriminating between benign and malignant eyelid lesions^(1,2). Most studies have revealed that common benign tumors are squamous papillomas, vascular tumors, nevi, cysts, and neural tumors⁽³⁾. The frequency of eyelid malignancies has been reviewed comprehensively in Caucasian patients; the most common malignant eyelid tumor is basal cell carcinoma, which accounts for 80-90% of cases^(4,5). In the present study, the authors analyzed the relative incidence of benign and malignant eyelid lesions submitted for histopathological diagnoses in Siriraj Hospital from 2000-2004.

Materials and Method

The authors retrospectively reviewed the medical records of patients with eyelid lesions that underwent biopsies in the Department of Ophthalmology, Siriraj Hospital, Mahidol University, Thailand, from January 2000 to April 2004. Two hundred and ninety-seven patients were included in the present study. A detailed clinical history and follow-up information were obtained. Tumor locations, histopathologic results, treatments, and recurrences were recorded.

Results

There were 297 patients included in the present study. Two hundred and nineteen were female. The median age at diagnosis was 50 (1-92) years in total, 48 (1-87) and 64 (29-92) years in the benign and malignant group respectively. A total of 297 lesions comprised of 212 (71.4%) benign tumors, 32 (10.8%) malignant tumors and 53 (17.8%) inflammatory lesions. The diagnoses were made on histological examinations based on specimens obtained by incisional or excisional biopsy for all cases.

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Of 212 benign tumors, nevus was the most commonly found tumor (37.7%) followed by squamous papilloma (15.8%). Of 32 malignant tumors, there were 13 (4.4%) sebaceous gland carcinomas (SGCs), 12 (4.0%) basal cell carcinomas (BCCs), 3 (1.0%) malignant melanomas (MMs) and 2 (0.7%) squamous cell carcinomas (SCCs). There were one case of apocrine adenocarcinoma and one case of metastatic adenoid cystic carcinoma from maxillary sinus (Table 1). Table 2 demonstrates the distributions of benign and malignant eyelid tumors in this study. Fifty-four percent of SGCs were located on the upper eyelids while 64.3%

of BCCs were located on the lower eyelids. There was equal distribution between the upper and lower eyelids in SCCs.

Twenty-seven medical records of patients with malignant eyelid tumors could be retrieved. Detail of treatments and follow-up were analyzed in 27 cases. Of these 27 patients, 6 patients underwent exenteration, 20 were excised with frozen section surgical margin monitoring and reconstructed with various flaps techniques (12/20) or primary closure (8/20). Enucleation was performed on one patient with marked proptosis because of extensive orbital invasion by MM

Table 1. Pathology of eyelid lesions

	Type of lesion	Number (%)
Benign tumors 212 (71.4%)	Squamous papilloma	47 (15.8)
	Nevus	112 (37.7)
	Seborrheic keratosis	28 (9.4)
	Epithelial inclusion cyst	4 (1.4)
	Others	21 (7.2)
Malignant tumors 32 (10.8%)	SGC	13 (4.4)
	BCC	12 (4.0)
	MM	3 (1.0)
	SCC	2 (0.7)
	Apocrine gland carcinoma	1 (0.3)
	Metastatic carcinoma	1 (0.3)
Inflammatory conditions		53 (17.8)
Total		297 (100)

SGC = sebaceous gland carcinomas
MM = malignant melanomas

BCC = basal cell carcinomas
SCC = squamous cell carcinomas

Table 2. Locations of benign and malignant eyelid tumors

Locations of tumors	Benign N (%)	Malignant N (%)				
		SGC	BCC	MM	SCC	Others
Upper eyelid	109 (51.4)	7 (53.9)	2 (21.4)	2 (66.7)	1 (50)	1 (50)
Lower eyelid	93 (43.9)	5 (38.5)	8 (64.4)	1 (33.3)	1 (50)	1 (50)
Inner canthus	5 (2.3)	0	0	0	0	0
Outer canthus	1 (0.5)	0	1 (7.1)	0	0	0
Diffuse*	4 (1.9)	1 (7.6)	1 (7.1)	0	0	0
	212	13	12	3	2	2

* Involving both upper and lower eyelids
SGC = sebaceous gland carcinomas
MM = malignant melanomas

BCC = basal cell carcinomas
SCC = squamous cell carcinomas

without any further treatment. The duration of follow-up ranged from 6-30 months. Two patients with SGC had recurrences.

Discussion

Eyelid lesion is a common condition in clinical practice encountered by ophthalmologists. Benign eyelid lesions including benign tumors and inflammatory conditions contribute the majority of eyelid lesions. The present study has shown relative incidences similar to previous studies^(3,4). The most common benign tumors were nevus and squamous papilloma in the present study.

Previous studies in a Caucasian population have shown that the most common malignant eyelid tumor is basal cell carcinoma^(4,6). However, Sihota et al reported in 1996 that sebaceous gland carcinoma was the most common malignant eyelid tumor found in an Indian population⁽⁷⁾. The study of Ni et al showed that SGC contributed 32.7% of all malignant eyelid tumors following BCC, constituting 47% in Chinese patients⁽⁸⁾. In the present study, there was almost equal incidence for both sebaceous gland carcinoma (13/32) and basal cell carcinoma (12/32). Genetics and racial predisposition may play a role in this contrast between studies in Asian and Caucasian populations. In genetic studies, tumor-suppressor genes produce protein products, which slow cell division or perhaps promote apoptosis (programmed cell death). Inactivation of a protein called p53, a tumor suppressor gene, is a factor in the development of malignancies. It has been suggested that ocular human papilloma virus may play a role in the inactivation of p53⁽⁹⁾. Gonzalez-Fernandez et al proposed that the differences in ocular infection rates with human papilloma virus between continents might be a possible explanation for the different frequencies of sebaceous gland carcinoma⁽¹⁰⁾.

In the present study, most sebaceous gland carcinomas were found on the upper eyelid which possibly reflected the greater number of meibomian glands in the upper eyelid⁽¹¹⁾. Basal cell carcinomas commonly affected the lower eyelid that is consistent with other studies^(2,5).

The standard treatment for most eyelid cancers remains Mohs' micrographic surgery or excision with frozen section surgical margin control⁽⁹⁾. After surgical resection with frozen section examination of the tissue margins, 2 cases of sebaceous gland carcinoma had recurrences. This might be from pagetoid spread in the eyelid and conjunctiva or multicentric in origin of the tumor⁽¹²⁾.

In conclusion, in the present study benign tumors were seven times more common than malignant eyelid tumors. However, malignant eyelid tumors contributed up to 10.8% of total eyelid lesions. There was a predominant occurrence of sebaceous gland carcinoma. The difference in relative incidences of eyelid tumors in Asian and Caucasian might be due to multiple factors such as genetic predisposing, environmental trigger and ocular infections.

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เนื้องอกที่เปลือกตาในโรงพยาบาลศิริราชระหว่างปี พ.ศ. 2543-2547

กนกรัตน์ พรพาณิชย์, พนิดา จินดาทรัพย์

วัตถุประสงค์: เพื่อจำแนกชนิดของรอยโรคที่เปลือกตาที่พบในโรงพยาบาลศิริราช ตั้งแต่ มกราคม พ.ศ. 2543 ถึง เมษายน พ.ศ. 2547

วิธีการศึกษา: เป็นการศึกษาแบบย้อนหลัง

วัสดุและวิธีการ: ทำการศึกษาชนิดของรอยโรคที่เปลือกตาของผู้ป่วยทั้งหมด 297 ราย โดยจำแนกตามลักษณะทางพยาธิวิทยา

ผลการศึกษา: ในผู้ป่วย 297 ราย พบรอยโรคที่เกิดจากการอักเสบ 53 ราย (ร้อยละ 17.8) เนื้องอกชนิดที่ไม่ใช่มะเร็ง 212 ราย (ร้อยละ 71.4) และมะเร็งของเปลือกตา 32 ราย (ร้อยละ 10.8) โดยพบมะเร็งของต่อมไขมันเป็นจำนวนมากที่สุด (13 ราย) และมะเร็งผิวหนังชนิด basal cell จำนวน 12 ราย ผู้ป่วยมะเร็ง 20 รายได้รับการรักษาโดยการตัดเนื้องอกและตกแต่งบาดแผลโดยวิธีทำ skin flap ผู้ป่วย 6 ราย ได้รับการผ่าตัดโดยวิธี exenteration

สรุป: รอยโรคที่เปลือกตาในผู้ป่วยส่วนใหญ่เป็นเนื้องอกชนิดไม่ใช่มะเร็ง พบเนื้องอกชนิดมะเร็ง ร้อยละ 10.8 ของรอยโรค ทั้งหมดโดยพบมะเร็งของต่อมไขมันมากที่สุด ซึ่งคล้ายคลึงกับการศึกษาอื่น ๆ จากประเทศในภูมิภาคเอเชีย
