ECCRINE ACROSPIROMA OF EYELID WITH MALIGNANT TRANSFORMATION- A CASE REPORT AND REVIEW OF LITERATURE

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ABSTRACT

The aim of this article is to present a clinico-pathological case report of a sweat gland tumor of eyelid that rarely undergoes malignant transformation. A 60-year-old woman presented with a painful ulcerated nodule on her eyelid which was excised with wide margins under frozen section control. The mass was sent for histopathology and after confirming tumor free margins, lid reconstruction was done by procuring a glabellar flap. Routine histopathology was diagnostic of Eccrine Acrospiroma with malignant transformation. Metastatic work up in the patient was within normal limits. The glabellar flap was healthy and no recurrence noted at one year of follow-up.

Key words: *Eccrine Acrospiroma, frozen section, Sweat gland tumor*

INTRODUCTION

Eccrine Acrospiroma is an uncommon benign sweat gland tumor of fairly characteristic histology which undergoes malignant transformation in 1.5 % of cases[1]. Though eccrine acospiromas have a predilection for the lower extremity, they tend to occur on the extremities, trunk, head, and neck[2]. Eccrine Acrospiroma with malignant transformation in the eyelid is exceedingly rare with only 6 cases previously reported in the literature[3-8]. This tumor needs total excision with wide margin clearance in order to prevent its recurrence which can occur in about 16.5% of cases[9]. There have been few reports of distant metastases to lungs, lymph nodes and parotid gland[9-11]

CASE REPORT

A 60-year-old woman presented with a slowly growing ulcerated nodule in her left medial aspect of the lower eyelid for the last 15 years which had lately become painful for one month duration. On examination, the mass was 10x8mm, soft to firm in consistency with surrounding induration and central ulceration. Clinically, it resembled nodulo-ulcerative variety of basal cell carcinoma. General physical examination was within normal limits with absence of any regional lymphadenopathy. A wide margin excisional clearance was performed and sent for frozen section. After confirmation of tumor free margins, lid reconstruction was planned. A forehead median rotational flap was taken up for reconstruction of the medial canthal and lower lid defect. The Hematoxylin and Eosin stained picture showed structure of ulcerated tumor tissue formed by two types of cells: dark cells at the periphery and pale cells in the central area arranged in cords and sheets extending into the deep dermis. Areas of small tubules with luminal eosinophilic material, cystic changes and hyalinization were seen. Interspersed mitosis and comedo necrosis with diffuse squamous differentiation were seen. All these histopathologic features were in favor of Eccrine Acrospiroma with malignant transformation (Fig 1 and 2). Complete metastatic work up including chest X-ray, abdominal ultrasonography, liver function tests and renal function tests were done and were within normal limits. The rotational flaps were healthy after 4 weeks postoperatively. She is on regular follow up for the last one year with no local recurrence.

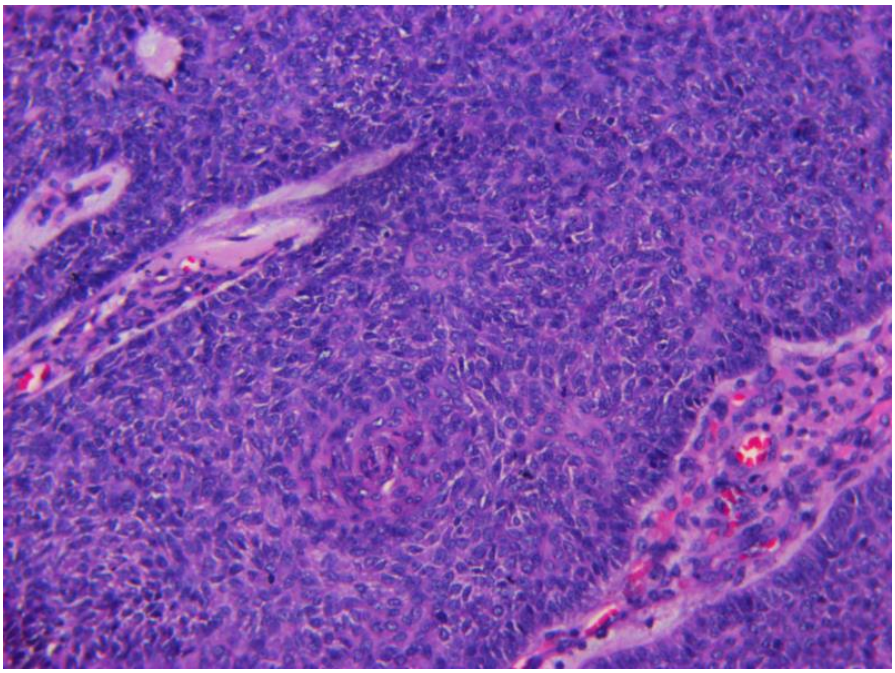

Fig1: Histopathological picture under 40 x magnification showing the biphasic pattern of tumour tissue composed of peripheral dark cells and central pale cells arranged in cords and sheets extending into the deep dermis.

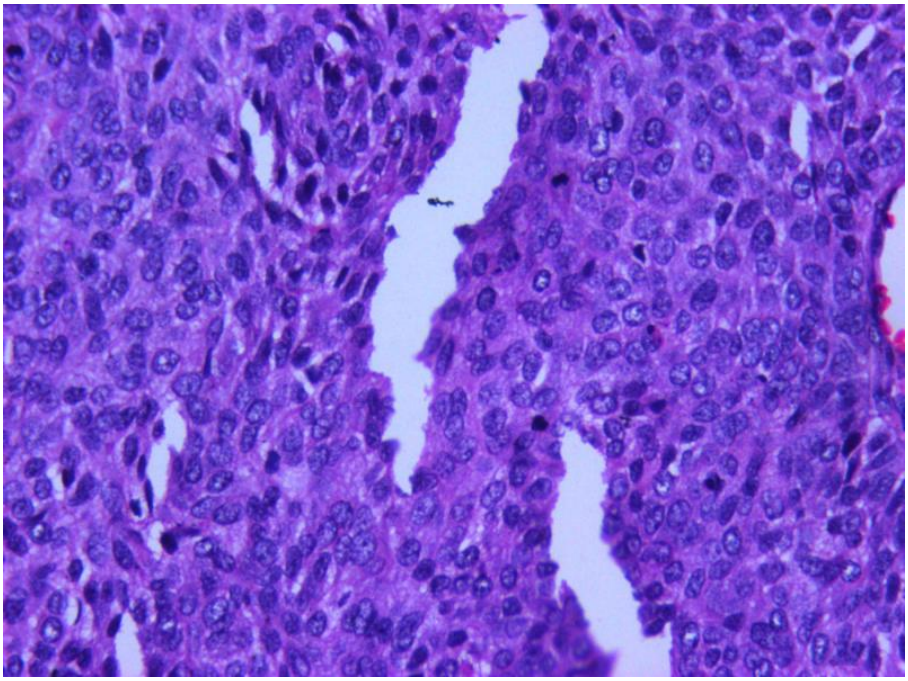

Fig 2: Histopathological picture under 40 x magnification showing interspersed mitosis and comedo necrosis with diffuse squamous differentiation.

DISCUSSION

In this article we have reported a patient with Eccrine Acrospiroma with malignant transformation of the eyelid, which is a rare sweat gland tumor. Only six such cases have been reported previously. Boynton and Markowitch[3] have reported a 68 years female with lower eyelid lesion for which full thickness excision was done and there was no recurrence till 3 years. Orella[4] et al have described a 37 years male with lower eyelid involvement which was excised with wide margin clearance D'Ambrosia[5] et

al have reported a 71 years male with lower eyelid mass in which Mohs micrographic surgery was done. Kim[6] et al. have reported a 75 years male with upper eyelid involvement which was excised in full-thickness and no recurrence was noted after 6 months. Greco[7] et al have reported a 70 years male with lower eyelid mass which was excised full thickness and did not recur after 2 years follow-up. Jain[8] et al have reported a 70 years male with upper eyelid involvement which was excised under Mohs micrographic control and showed no recurrence for 6 months. Finally it can be concluded that it preferentially affects elderly males, has no predilection for either eyelid and does not possess any distinguishing clinical features. It is usually seen on the trunk, extremities, and the head and neck region. It may appear as a nodule, plaque, or a polypoidal growth that is frequently ulcerated. Multinodularity, ulceration, and rapid growth may be associated with either local recurrence or metastatic disease[8]. The patient seeks medical opinion when pain and ulceration occurs as occurred in our case. It is considered to be a tumor of intermediate malignant potential, with approximately 12% cases developing metastasis, usually to regional lymph nodes[8]. The tumor has a tendency for epidermal spread, and regional cutaneous metastasis is a characteristic feature. Histopathologically, it is readily differentiated from other sweat gland tumors from the fact that this tumor has biphasic pattern of tumor cells. It originates from the sweat ducts and shows two cell types: a polyhedral to fusiform cell with slightly basophilic or eosinophilic cytoplasm, and a clear (glycogen-containing) cell. Although Immunohistochemistry is the confirmatory diagnosis, it is not considered mandatory by pathologists due to its specific histopathological picture. The epithelial cells stain positively for cytokeratins AE1 and AE3 (high– molecular weight cytokeratins), epithelial membrane and carcinoembryonic antigens, and muscle-specific actin[13]. Interspersed mitosis and comedo necrosis with diffuse squamous differentiation are the histologic features which should be looked for to rule out any malignant transformation. Pluripotentiality with oncocytic, apocrine and sebaceous differentiation has also been reported by some authors[14].

The three most important differential diagnoses which had to be ruled out were nodulo-ulcerative type of basal cell carcinoma, squamous cell carcinoma and metastases. Malignant melanoma and sebaceous gland carcinoma could be ruled out easily by its clinical picture. The lack of follicular origin, basaloid proliferation and peripheral palisading pattern ruled out BCC. Our case showed some cells with squamoid differentiation but it was diffuse in nature rather than an irregular pattern of pleomorphic squamous cells, as seen in squamous cell carcinoma. Metastases to eyelids can be most commonly from breast carcinoma followed by skin melanoma, gastric carcinoma, uveal melanoma, lung and renal cell carcinoma. Lack of atypical tumor cells and pattern ruled out metastases from possible sites.

The most preferred treatment is wide excision with margin control (frozen section, rapid paraffin section with delayed closure, or Mohs micrographic surgery). In one case series, patients treated with Mohs surgery showed no recurrence at 5-year follow-up[5]. Jagannath et al have reported a case of Eccrine Acrospiroma in eyelid which had recurred after 3 months due to incomplete removal[12].

CONCLUSION

Eccrine acrospiroma should be considered in the differential diagnosis of patients with eyelid tumors. Considering the significant risk of local spread and distant visceral metastasis, a histologic diagnosis should prompt complete surgical excision followed by eyelid reconstruction. Complete metastatic work up and long term follow up is recommended for the proper treatment.

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