

## Sebaceous Adenoma versus Carcinoma: A Diagnostic Dilemma

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**Abstract:** Sebaceous adenoma is rare lesion and frequently misdiagnosed clinically as basal cell carcinoma or squamous cell carcinoma. Sebaceous carcinoma are still rarer lesions taking origin from sebaceous glands. We report a case of sebaceous carcinoma on upper eyelid which was a diagnostic dilemma. Biopsy in this case was sent to us with clinical diagnosis of squamous cell carcinoma/Meibomian gland carcinoma. This case is being presented solely to focus on the fact that a small or rather superficial biopsy can lead to a diagnostic dilemma.

**Keywords:** sebaceous carcinoma, malignant, eyelid, sebaceous adenoma.

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### I. Introduction

Sebaceous glands are normally found in association with hair follicles. Sebaceous hyperplasia, steatocystoma and sebocystomatosis, sebaceous adenoma, sebaceoma, sebaceous epithelioma, sebomatricoma and sebaceous carcinoma are few lesions which affect these glands.

Sebaceous adenoma is a rare lesion presenting most often in older people, mean age-60 years. It presents clinically as a tan, pink or yellow papulonodule measuring 0.5 to 1 cms in greater dimension. It can also present as a polypoid growth.

### II. Case Report

A 45 years male patient presented to the cosmetic surgery OPD (outpatient department) with swelling over the left upper eyelid of short duration. Clinical diagnosis was squamous cell carcinoma/Meibomian gland carcinoma. Biopsy was done after performing the routine investigations.

Gross appearance: irregular grey brown tiny bit of tissue measuring around 0.3 cms in longest dimension. Entire tissue was processed.

Microscopy showed a tumour composed of cells arranged in lobules. The tumour cells are round to polygonal with moderate amount of vacuolated cytoplasm and round to oval hyperchromatic nuclei. Basal cells are seen palisading around the tumour lobules. Occasional mitosis note (0-1 hpf). Adjacent tissue shows numerous normal appearing sebaceous glands. Impression given was of sebaceous adenoma.

As part of protocol to review tiny biopsies with clinical impression of malignancy deeper bits were taken from the same block. Microscopy from the deeper sections showed the similar features as mentioned above. But it also showed few cells towards the edge of the lesion. These cells had moderate cytoplasm and large hyperchromatic nucleus and appeared atypical. Since these cells were seen at periphery of lesion and were almost cut off from the main tumour a definitive diagnosis could not be provided. (figure 5) Surgeon was informed the same and advised for wide excision biopsy.

We received another specimen i.e. of wide excision biopsy specimen consisting of single irregular grey white mass of tissue measuring 2x1.2x0.3 cms. Cut surface showed grey white areas. Microscopy showed a well circumscribed tumor with areas of comedonecrosis. Both the superior and medial margins were involved by the tumor. Conjunctival epithelium showed foci of pagetoid spread. There was no evidence of lymph vascular invasion. figures 1, 2, 3 & 4.

Impression given was well differentiated Sebaceous cell carcinoma (multicentric).

Another specimen labelled as retention cyst was also received along with wide excision biopsy. Specimen measured 1.4x0.9x0.6 cms. Microscopy showed features of well differentiated sebaceous carcinoma (multicentric).

Based on these findings a histopathological diagnosis of sebaceous carcinoma was provided.

### III. Discussion

Sebaceous adenoma is seen most commonly on face or scalp as a tiny yellow colour nodule or polypoid lesion. An interesting association of sebaceous adenoma with Muir-Torr syndrome has been documented in which patient has metachronous or synchronous visceral malignancies and cutaneous sebaceous adenomas/carcinomas, basal cell carcinoma with sebaceous differentiation or squamous cell carcinoma of keratoacanthoma type.

Microscopic features of sebaceous adenoma: It is a sharply demarcated lesion from surrounding tissue. It is composed of incompletely differentiated sebaceous lobules irregular in shape and size consisting of two types of cells. One represent undifferentiated basaloid cells and are present at periphery as well as the

lobule itself. The other type is mature sebaceous cells. cystic spaces can be seen at the centre of lobule.(1) Few cases also show the presence of foci of squamous epithelium with keratinization.

Sebaceous adenoma lacks nuclear atypia and invasive ,asymmetric growth pattern which are hallmarks of malignancy.

The common sites for sebaceous adenoma are scalp and face but it has been reported in penis also.(2)Sebaceous skin lesions provide a clue to hidden malignancy especially HNPCC (Hereditary non polyposis colorectal carcinoma). Ponti et al discussed the importance of combining molecular genetics of sebaceous neoplasms , including MSI(microsatellite instability) and immunohistochemistry.(3)

Sebaceous carcinoma: Classified into ocular type and extraocular type.Ocular type occurs on the eyelids typically originating from Meibomian gland and can be mistaken for chronic blepharconjunctivites or a chalazion. Sebaceous carcinoma of eyelids quite frequently cause regional metastasis and orbital invasion.

Microscopy:Irregular lobular formations with variations in size of lobules. Although many cells are undifferentiated,distinct sebaceous cells showing a foamy cytoplasm are present in the centre of the lobules and show atypical features i.e.nuclear and nucleolar and nucleolar pleomorphism. Sebaceous carcinoma of eyelids in half of the cases show a pagetoid growth pattern.(4,6)

Abnormal mitotic figures,zone of necrosis, and nuclear atypia are important features of sebaceous carcinoma. Unfavourable features include paucity of reactive inflammatory cells,pagetoid proliferation of tumour cells in the epidermis or conjunctiva confers poor prognosis.

Sebaceous carcinoma occurs in orbital region in almost 75% of cases. Relapse of sebaceous carcinoma of scalp has also been reported in literature. (4) It can present with diverse clinical presentations that the diagnosis is delayed for a long time. (5)Sebaceous carcinoma is two to three times more common in upper eyelid due to more number of Meibomian glands of Zeiss or Moll.(5)

In our article we would like to bring out few points which are of significance while reporting a case of sebaceous gland tumor. Firstly, very small and superficial biopsies may not provide the correct diagnosis in few cases. Always emphasize the surgeon for providing deep biopsy in case of skin tumors. In fact if the surgeon has strong opinion of malignancy on his clinical examination then it is mandatory to take deep biopsy. Time is important in such cases because sebaceous carcinoma is an aggressive tumor and spreads to deeper eye structures and also metastasizes to other sites very fast. It is the fact that pathologists have a limitation when it comes to microscopic features in certain cases of very small and superficial biopsies which do not show a clear cut malignant tumor.In conclusion we emphasize on the significance and time saving aspect of deep biopsies.

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