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Sebaceous Gland Carcinoma of the Eye Lid: An Agressive Tumor of the Periocular Tissues

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Abstract
BACKGROUND: Sebaceous gland carcinomas affect elderly patients, the median age at diagnosis being over 60 years. It has to be treated with radical surgical excision for cure. However, it is frequently misdiagnosed both clinically and pathologically.OBJECTIVE: To present a case located on the right lower eye lid as a 2 cm nodule being present for a year in a 55 year old woman that was diagnosed as a benign mass clinically.METHODS: Pathological assessment of a totally excised 2 cm nodular mass microscopically yielded a diagnosis of sebaceous gland carcinoma showing comedo-like necrosis and epithelial membrane antigen positivity.CONCLUSION: Sebaceous gland carcinomas must be both clinically and pathologically on the list of differential diagnosis for persisting lesions of periocular tissue lesions since it needs radical surgical excision.
Keywords: Sebaceous gland carcinoma, eye lid, histopathology

1. Introduction

Sebaceous gland carcinoma (SGC) is the most important malignant neoplasm of the eyelid and it arises almost exclusively in the skin of the eyelid, being extremely rare in the skin elsewhere (Calonje et al 2012; McLean et al 1994). However it is frequently misdiagnosed both clinically and pathologically so that awareness of this entity in periocular tissues is critical since it needs more radical excision for cure (Calonje et al 2012; Eberhart 2018).

2.Case presentation

A 2 cm painless nodular mass that has been growing for about a year on the right lower eye lid from a 55 year old woman was excised. The clinical presumptive diagnosis was a benign mass, not precisely specified. Gross pathologic examination revealed a pale yellow, white nodular tissue covered by intact skin. Microscopic sections showed islands of oval, polygonal cohesive basophilic epithelial cells with clear-cut malignant features showing a high mitotic rate and necrosis (Figure 1). Dystrophic microcalcifications were also present among the comedo-like necrotic foci (Figure 2). Tumor cells with periodic acid Schiff (PAS) reaction negative clear cytoplasm could be seen among the basophilic cell groups (Figure 3). Cytoplasmic epithelial membrane antigen (EMA) positivity was prominent (Figue 4) whereas carcinoembryonic antigen (CEA) was negative in the tumor cells. The pathologic diagnosis was sebaceous gland carcinoma (SGC) which necessitates a radical surgical approach for a curative treatment.

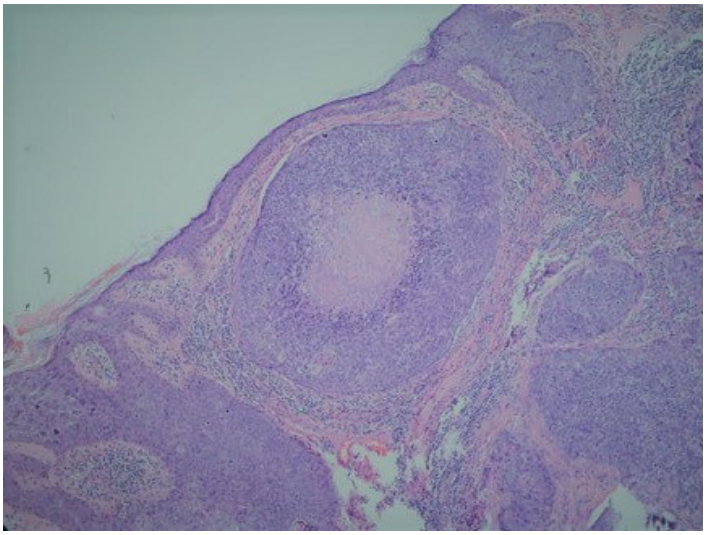

Figure 1. : Cohesive epithelial malignant cells forming infiltrative islands with intact attenuated surface epidermis and a necrotic center in the subepidermal tumor island (Hematoxylin and eosin x100)

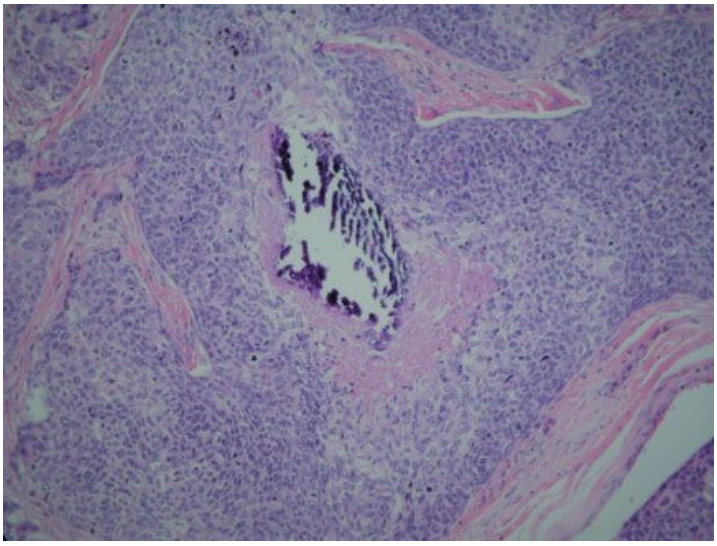

Figure 2: Malignant tumor island with dystrophic calcification in the central necrosis area “calcific comedo necrosis” and epithelial cells with paler cytoplasm around the necrosis (Hematoxylin and eosin x200)

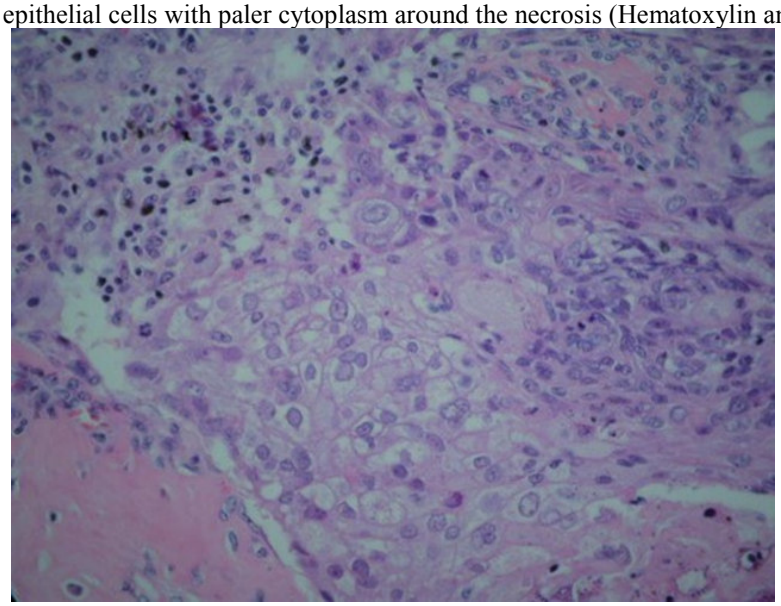

Figure 3: Tumor cells having PAS negative clear, lipidized cytoplasm i.e. sebaceous differentiation (Hematoxylin and eosin x400)

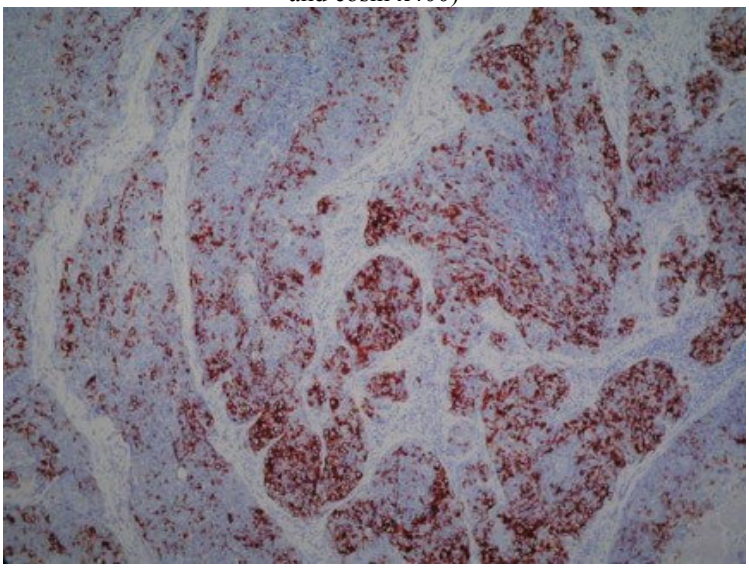

Figure 4: Prominent EMA positivity in the infiltrative tumor cells (EMA antibody, DAB chromogen x100)

3.Discussion

SGC is the most important cancer of the eyelids, arising from the Meibomian (tarsal) or Zeis glands and is extremely rare in the skin elsewhere (Calonje et al 2012; Eberhard 2018; McLean et al 1994; Roberts and Thum2014). SGC is an aggressive tumor associated with poor prognosis. SGC affects elderly patients over the age 60, being more common in Asiatics with a female preponderance. It is of importance because it is a notorious diagnostic pitfall for the clinician and the pathologist cure (Calonje et al 2012; Eberhart 2018). Early identification and appropriate radical surgical treatment may be helpful to improve the prognosis. The tumor frequently appears as an atypical or recurring chalazion, with a rubbery consistency. Some patients with SGC developing from Meibomian glands have a diffuse plaque-like thickening of the tarsus or a fungating or papillomatous growth (McLean et al 1994). Sebaceous cell features may variably be discerned in regard to tumor differentiation. The tumor lobules exhibit basaloid features but lack the peripheral palisading that is characteristic of a basal cell carcinoma. less differentiated tumors have larger lobules with prominent central foci of necrosis (Calonje et al 2012, Eberhard 2018, McLean et al 1994). Immunohistochemistry may be helpful in differentiating from basal and squamous cell carcinomas in difficult cases but an extended evaluation of routine hematoxylin eosin stains remains essential (cure (Calonje et al 2012; Eberhart 2018; Roberts and Thum 2014). Immunohistochemically, SGC is characterized by strong EMA and adipophilin expression but is CEA negative (Calonje et al 2012, Eberhard 2018, McLean et al 1994). Androgen receptor (AR441) positivity also has been recommended especially for Pagetoid spread of SGC (Schmitz et al, 2017).

Source(s) of Support
None.
Conflicting Interest
None,

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