Case Report

Malignant clear cell hidradenoma of the upper eyelid

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Abstract:
Malignant clear cell hidradenoma is a rare eccrine sweat gland neoplasm, probably not reported in the eyelids, although benign clear cell hidradenoma of the eyelid has been reported. A 65 year old lady presented to Ophthalmology outpatient department at Sri R L Jalappa hospital and research centre with a solitary mass over the right upper eyelid associated with mechanical ptosis. Clinical diagnosis was a puzzle because of the shiny pinkish epidermal surface. The tumour was excised. Histopathological examination revealed malignant clear cell hidradenoma. Review of literature revealed it to be an extremely rare neoplasm.

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1. Introduction

Malignant clear cell hidradenoma is a rare eccrine sweat gland neoplasm probably not reported in the eyelids although the benign counterpart has been reported.

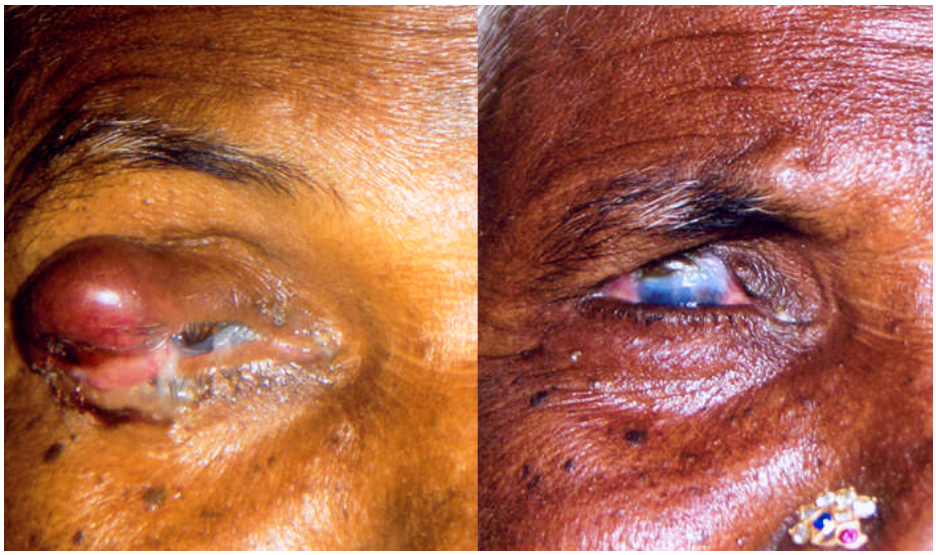

Figure 1. Showing the Pre operative Photograph showing growth on the right upper eyelid and the Post operative photograph

A characteristic finding is the presence of intracytoplasmic ductal differentiation, sometimes showing a well formed cuticular border; occasionally well formed ducts are also evident. In cases of doubt the use of the diastase- PAS reaction and immunohistochemistry are of value in highlighting these structures.

2. Case presentation

A 65 year old lady presented with a solitary mass on the right upper eyelid of 3 months duration to the outpatient department of ophthalmology at Sri R.L. Jalappa hospital and research centre. It was insidious in onset and gradually progressive in size associated with watering of eyes. Examination revealed a solitary 2.5cmx1.5cm hard nontender mass with a pink shiny epidermal surface. Mechanical ptosis, ectropion of lateral half of the eyelid and conjunctival congestion were noted. Right sided preauricular lymph node was palpable. Clinical diagnosis was a puzzle because of pink shiny epidermal surface. However a diagnosis of Meibomian carcinoma was made. 5mm curvilinear excision of the tumour margin along with excision of the right preauricular lymph node under general anaesthesia was performed. The resected specimen measured 4cmx2.5cmx2cm was sent for histopathological examination. On follow up the patient has been free of recurrence for 15 months since surgery.

Pathologic findings: A Solitary mass measuring 4cmx2.5cmx2cm on histopathological examination revealed the tumour was poorly circumscribed, cellular and composed of lobulated masses in the dermis infiltrating the subcutaneous tissue. The tumour lobules had round to oval cells with a vesicular nucleus displaying mild atypia, multiple nucleoli and numerous mitotic figures. Tubular lamina of varying sizes and cystic spaces filled with eosinophilic secretion were present within the lobules. Stroma showed mild to moderate infiltrate of lymphocytes and eosinophils. The preauricular lymph node showed only reactive hyperplasia and no tumour deposits.

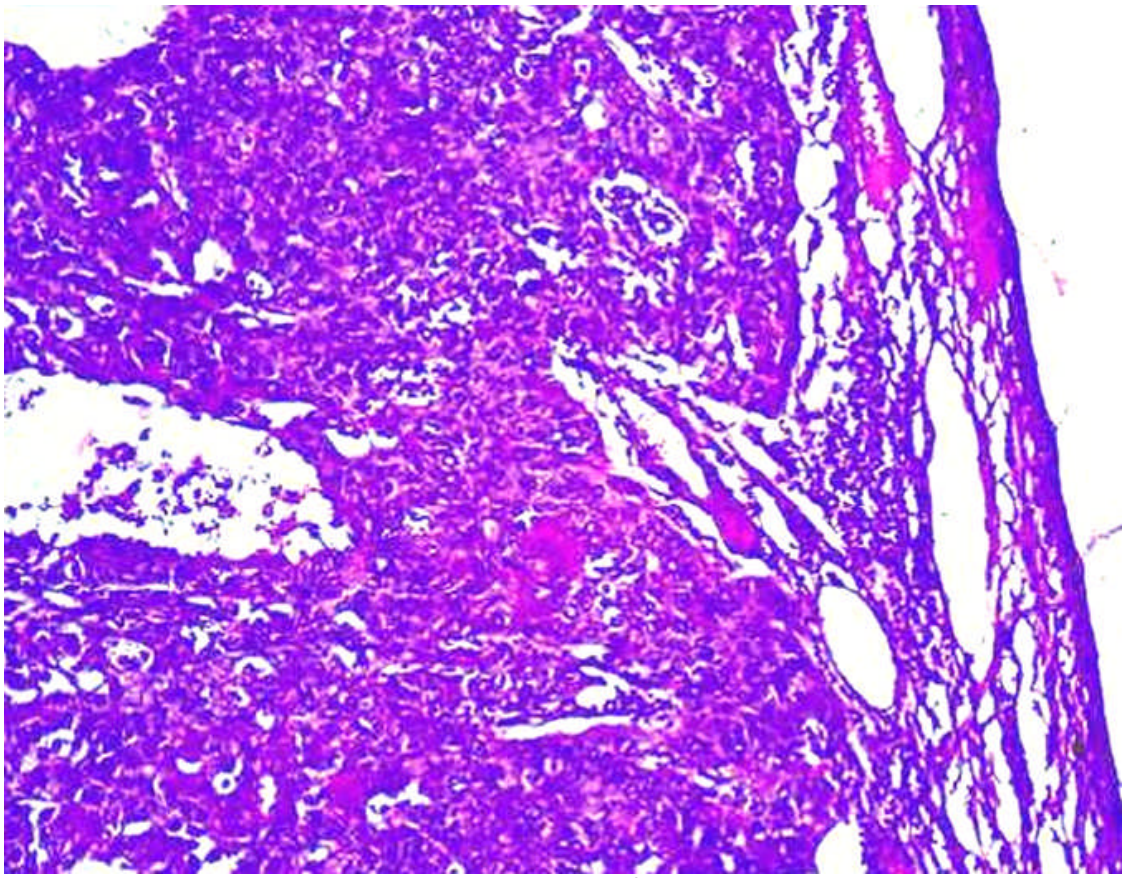

Figure 2. Photograph (450X) – Polygonal tumor cells some of which are showing clear cell changes, vesicular nuclei, prominent nucleoli and high mitosis (H&E)

3. Discussions

Sweat gland tumours are mostly benign. Malignancy is distinctly a rare feature (1). These tumours are postulated to arise from the intradermal duct of eccrine sweat glands1. The more recent literature however has described these tumours at a very diverse range of sites including the scalp, lip, neck, chest wall, breast, back, leg, toe and vulva except eyelid. The age range is wide extending from childhood to elderly. Sex predominance being females (2).The pathogenesis of this is not known except that malignant transformation of the pre-existent clear cell hidradenoma is very rare. In the reported case, the tumour has a potentiality of arising de novo and showing an aggressive behaviour as suggested by a short history. Secondaries in the lymph nodes, lungs and bones have been documented (2).

Various nomenclatures have been given, clear cell hidradenocarcinoma / solid cystic hidradenocarcinoma/ /Malignant clear cell myoepitheloma/ Malignant acrospiroma /clear cell eccrine carcinoma. This nomenclature is based on Microscopic and histochemical studies (2, 3). A case of benign clear cell hidradenoma of the eyelid in an elderly female was reported by Agarwala N S where structural and enzyme histochemical studies have shown to be intermediate between eccrine poroma and eccrine spiroadenoma (1). Grossniklaus reported a case of eccrine acrospiroma (clear cell hidradenoma) of the eyelid in which light microscopic and ultrascopic examination showed 2 types of cells to comprise the tumour: eosinophilic cells with intracytoplasmic tonofilaments and clear cells with intracytoplasmic glycogen granules (4). Tsuda Y has reported a case of benign clear cell nodular hidradenoma of the eyelid (5). Klaus Sellheyer has reported a case of clear cell hidradenoma on the abdominal skin (6). I.E liapakis reports 2 cases of malignant hidradenoma, one in the right axilla and other on the abdominal wall (7).

4. Conclusion

Malignant clear cell hidradenoma of the right upper eyelid is an extremely rare tumour. We believe this is a first case report of the kind. The awareness of this aggressive tumour should be kept in mind and must be added to the list of differential diagnosis of malignant eyelid tumours.

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