

Calcinosis cutis of the eyelid.

Authors: Thanuja G. Pradeep¹, Praveen Kumar², Lakshmi B¹.

Author's Affiliations: ¹Department of Ophthalmology, M.S. Ramaiah Medical College and Hospital, Bangalore, India

2- Department of Dermatology, M.S.Ramaiah medical college and hospital. India.

**Correspondence: Dr. Thanuja G. Pradeep
705, Renaissance park 2, Malleswaram west,
Bangalore 560055.**

E-mail: thanugopal@yahoo.co.in

Key words: lid tumor, calcinosis cutis, lid mass

Abstract: We report a case of calcinosis cutis presenting in the upper eyelid. These cases can mimic various conditions of the eyelid and diagnosis is usually done histopathologically. Though they are common occurrence for dermatologists, there are very few cases reported in the ophthalmic literature. They need to be recognised and differentiated from a more dangerous metastatic and dystrophic varieties as simple excision is adequate in the idiopathic type of calcinosis cutis.

Case report: A 18 year old male patient presented with a painless swelling over the left upper eyelid since one year. The swelling was initially small in size and gradually increased in proportion to reach the present size (Fig 1). There was no history of pain, discharge or trauma. Patient had noticed a discoloration on the right upper lid since 2 months. On examination he had a 10mm X 8 mm raised swelling on the lateral part of left eyelid. The surface was irregular with scabs . On removal of the scab the underlying area showed ulceration. The mass was freely mobile over the orbicularis muscle. On eversion of the eyelid the tarsal plate and the conjunctiva was seen to be spared from the mass. The rest of the eye examination was normal with a visual acuity of 6/6 and anterior and posterior segments were normal. Differential diagnosis included keratoacanthoma and molluscum contagiosum. The right upper eyelid showed a flat yellowish lesion 4mm X 4 mm in size on the medial aspect of the upper lid, the surface was smooth and the rest of the ocular examination was normal. The diagnosis of xanthogranuloma was made.

A punch biopsy of the left eyelid mass was done by the dermatologist and the histopathological examination (HPE) revealed - epithelium with acanthosis and hyperkeratosis and extension of calcific material to the epidermis, the dermis showed amorphous calcium deposits with areas of necrosis. A diagnosis of calcinosis cutis was made.

His serum calcium and phosphorous levels were normal, HIV, HBS Ag negative.

The patient underwent an elliptical incision(Fig 2) of the left upper lid mass and a complete excision biopsy (Fig 3) also showed calcinosis cutis with transepidermal infiltration and showed no remnants of any ocular adnexal tumor.

Discussion: There have been very few reports in the ophthalmic history of calcinosis cutis(1,2,3,4,5,6,7,8) involving the eyelids . Calcinosis cutis is a common presentation for the dermatologists and pathologists but for the ophthalmologists it still presents to be a rare diagnosis.

Calcinosis cutis can be of four types- metastatic, dystrophic, iatrogenic and idiopathic. Metastatic is usually associated with high serum calcium and phosphorous levels and needs a strict vigilance to rule out any such systemic association as it would require a multidisciplinary approach in managing these patients. Calcinosis cutis could be seen as a dystrophic change in pre-existing tumors or cysts and hence these cases also require a HPE to rule out underlying tumors which might be the primary concern in the treatment. Idiopathic cases are identified after ruling out the other variants of the condition and is seen as the most common presentation and no cause can be identified and no history of trauma can also be elucidated from these patients.

The pathogenesis of calcinosis cutis is not known and hence diagnosis of the condition mandates exclusion of metastatic and dystrophic variants.

The diagnosis of calcinosis cutis is done primarily by histopathology and clinically it mimics various conditions such as molluscum contagiosum(7), keratoacanthoma, pilomatrixoma, juvenile xanthogranuloma. The clinical picture is described as small, firm verrucous nodule but requires a high index of suspicion in diagnosing the condition.

Histopathologically(8), on hematoxylin- eosin stained preparations it shows acanthotic , papillomatous epidermis, the subepidermal region is characterized by intensely basophilic calcific deposits which is the hallmark of this condition. The deposits stain with von Kossa stain for calcium. Foreign body giant cell reaction and transepidermal elimination of calcium granules can be observed.

The treatment involves complete excision and this has been shown to have good results with no recurrences reported. Intralesional steroids have also been tried but with questionable effectiveness.

The diagnosis of calcinosis cutis has to be considered in any nodule involving the ocular adnexal skin and the ophthalmologist must be aware of the condition and must elicit history and also request appropriate laboratory tests to rule out the more threatening metastatic and dystrophic variants as the idiopathic variety is benign and a simple excision would suffice in these cases.

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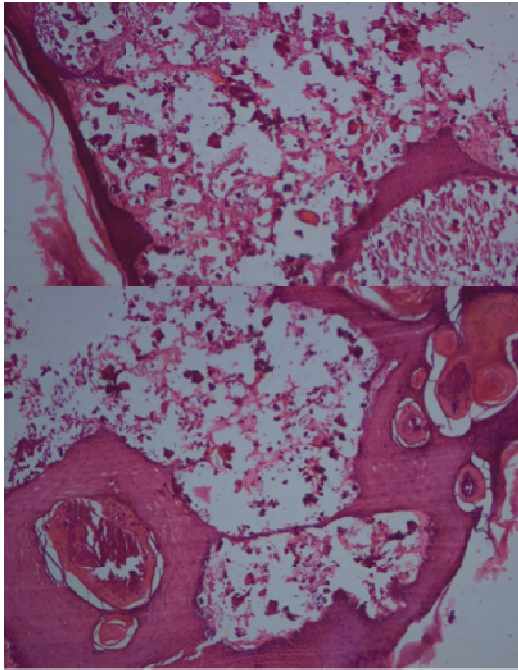


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92 Fig 1: picture shows the raised lesion in the left eyelid and on eversion the tarsal plate is free
93 of the lesion

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96 Fig 2: Intra operative pictures showing excision in toto with underlying surface smooth and
97 the elliptical mass measuring 10mm by 8mm in size.



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Fig 3: HPE showing lesion covered by thinned out epidermis. The lesion shows necrotic debris and extensive calcification.