

Running Title: Look alike, but different. A diagnostic dilemma
Calcinosis Cutis and Xanthelasma Palpebrarum: Look alike, but an enigma
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ABSTRACT

Out of the various skin lesions which are characterized by yellowish plaques over the eyelids – mostly over the medial canthus of the upper lid, Xanthelasma, is the commonest. The term "Xanthelasma" is derived from a Greek word-xanthos (yellow) and elasma (beaten metal plate). The prevalence of Xanthelasma is around 1.1% in women and 0.3% in men. The plaques are usually single or may be more than one and symmetrical. Look wise they may be nodular or flat, soft, semisolid or calcareous. Similar looking lesions can also be caused by Calcinosis Cutis, Syringomas, periocular xanthogranulomas, Sebaceous hyperplasia, Cutaneous mycetoma, Genital warts, Milia, Molluscum contagiosum and Osteoma cutis, to name a few. Our case report is based on the look alike of this type of lesion.

Keywords: Calcinosis cutis, Xanthelasma, skin lesions.

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Conflict of interest: None.

Introduction:

A 22 years old female patient, of medium socioeconomic class, came to our Eye OPD, with chief complaints of a yellowish white lesion over her left upper lid near the medial canthus, since two years. The size of the lesion was initially small, which gradually increased over the years. There was no associated history of pain, itching, discharge or altered coloration over the lesion. Patient was well built, well nourished and well oriented to time place and person. There was no history of any systemic illness. Family history and personal history was not significant.

On examination, unaided Visual Acuity in both eyes were 6/6, N6.

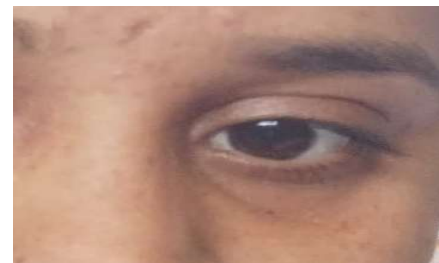
Colour vision was normal. Facial symmetry and head posture was normal. Both the eyebrows were normal. Left eye upper lid showed a yellowish white elevated lesion around 0.3cm *0.2cm size, near the inner canthus. Examination of the anterior and posterior segments of both the eyes revealed no abnormalities. There were no lesions over the rest of the body. As the patient wanted to get the lesion removed for cosmetic reasons, we planned for left eye upper lid lesion excision biopsy. This was done under local anaesthesia. 6-0 vicryl absorbable suture was taken for skin closure.

Our preoperative diagnosis was Xanthelasma Palpebrarum.

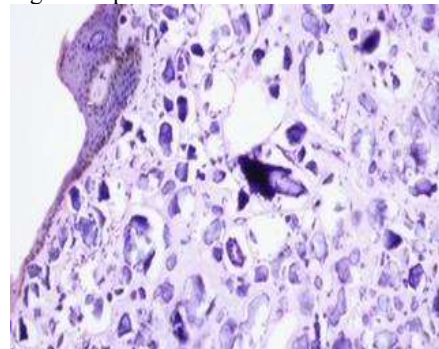
1) Pre-operative appearance



2) Post operative appearance

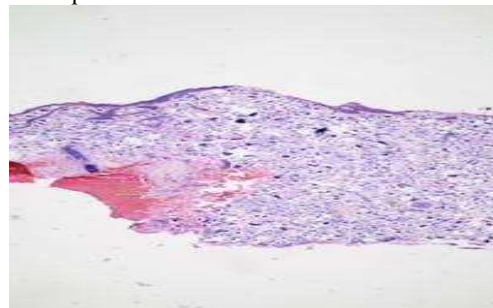


3) Histological Report



Calcium deposits stain dark blue with hematoxylin and eosin (H and E)

4) Microscopic



Routine preoperative investigative work up was done, which included, CBC, HIV, HBSAG, HCV, RBS, Urine r/m, Serum cholesterol, serum Triglycerides, Serum Calcium, and Lipid profile.

All were found to be within normal limits.

Histopathology report;

On gross examination there was a brownish soft tissue measuring 0.4*0.2*0.1 cm.

on microscopic examination, the section showed structure of skin having epidermis and dermis. Sub epidermal region showed homogenous area of calcification along with few hair follicles.

The findings were suggestive of:- left eye upper lid **CALCINOSIS CUTIS**.

Calcinosis Cutis⁽¹⁾, is a condition where calcium salts are deposited in the skin and subcutaneous tissue. The cause of calcinosis cutis can be multiple and varied. It can be due to trauma, an inflammatory condition like varicose veins or associated with tumors and infections. Connective tissue diseases also have a major role. Rise in blood Phosphorous and calcium can also contribute to the appearance of Calcinosis cutis. Depending on the etiology, calcinosis cutis can be classified into five main types⁽²⁾:

1) Dystrophic – This is the commonest. Usually associated with connective tissue disorders and the blood levels of calcium and phosphorus levels are normal.

2) Metastatic- Commonest cause is Chronic renal failure and there is a significant rise of serum calcium and phosphorus levels.

3) Idiopathic- is subdivided into Familial tumoral Calcinosis, subepidermal calcified nodules and scrotal calcinosis. Here the lesions are predisposed around major joints. The lesions are usually asymptomatic, but can be associated with itching and whitish colored discharge⁽³⁾

4) Iatrogenic - usually manifest in persons who are receiving Calcium or phosphate substitutes or supplements. Patients with pulmonary TB are more predisposed, if they are on IV para-amino salicylic acid and calcium compounds⁽⁴⁾.

5) Calciphylaxis- occurs in persons on long term dialysis due to chronic renal failure

Discussion –As our diagnosis of Calcinosis Cutis was made accidentally during a routine work up and subsequent histological report of the excised lesion, we suggest, that all such lesions should undergo routine excision biopsy, unless the patient gives a negative consent. In our case, we had a consent from the patient and approval from our institutional ethics committee to publish this as a case report.

The diagnosis and management of calcinosis cutis is a little confusing as the mode of presentation can vary⁽⁴⁾⁽⁵⁾. The treatment also varies accordingly. The disease spectrum may range from no symptoms to a more severe and generalised appearance of lesions with systemic manifestations. Diagnostic tests^(6,7) are a must before the start of therapy. The patient was informed of the diagnosis and explained in details about the lesion. She was requested to keep in touch with us and the physicians, if any other crops of lesions appeared on her body. All lesions be it single or multiple, small or widespread should undergo thorough clinical and histological evaluation. Thus a multi departmental approach is very essential in maximising patient care to a great deal.

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