

## Unique Duo of Clinical Variants of Calcinosis Cutis: Report of 2 Cases

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### Introduction

Calcinosis cutis is a condition of calcium hydroxide deposition in the skin and subcutaneous tissue. Literature divides calcinosis in to 4 major types with description of sites and causes. But here we are reporting the unique presentation of calcinosis cutis in atypical presentation. Usually present over the surgical scar, keloid, periarticular area, heel, as nodule [1]. Here our 1<sup>st</sup> patient is presenting with non specific whitish plaque bilaterally symmetrical over the face and 2<sup>nd</sup> patient present over anterior superior iliac spine with tender swelling. There were not much cases reported with calcinosis over these atypical sites. So this will be interesting cases to practitioners.

### Case Report

**CASE 1:** A 50 year old female patient presented with progressive asymptomatic white raised lesion over both cheek since 1 year. She had history of trauma at that site. Examination revealed white plaque with irregular surface of 3\*2cm over the right cheek and 2\*1cm over the left cheek and multiple small lesions over left eyelid (**figure 1**). Skin biopsy performed from the lesion revealed calcium deposits in the dermis in H&E and on special staining (**figure 2**). X-ray was also done. Serum calcium and phosphorous were normal and other test for systemic diseases were also negative.



Figure 1: showing whitish plaque bilaterally on face

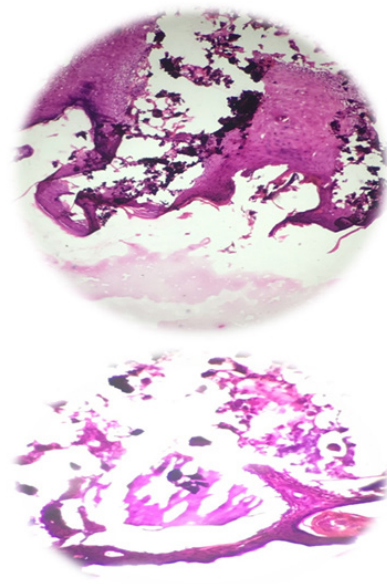


Figure 2: showing von kossa and H&E showing calcium deposits in dermis

**CASE 2:** A 60 year old lady present with tender progressive swelling over the right anterior superior iliac spine since 6 months (**figure 3**). she had not given any history of trauma or infection over that area. On examination, 2-3 swelling of size measuring 4\*3\*2cm over the ASIS with the summit showing extrusion of chalky white material. Skin biopsies were consistent with features of calcinosis cutis. Evaluation for systemic diseases and serum calcium and phosphorous were normal.



**Figure 3:** showing nodule over ASIS with chalky white material

### Discussion

Calcium plays a key role in physiological events including epidermal cell proliferation, differentiation and adhesion [2]. Disruption of normal calcium homeostasis can be associated with calcification of skin. Cutaneous calcifying disorder can be dystrophic, iatrogenic, metastatic and iatrogenic [3]. Calcinosis cutis are of 4 types: Dystrophic, idiopathic, metastatic and iatrogenic. Dystrophic calcinosis is calcification associated with infection, inflammatory process, cutaneous neoplasm or connective tissue disorder [4,5]. Idiopathic calcinosis is cutaneous calcification with normal serum calcium without any obvious cause. Iatrogenic calcinosis associated with trauma and medical procedure [4,5]. Metastatic calcification is the deposition of calcium salts from abnormal calcium homeostasis [2].

Here our 1<sup>st</sup> patient had history of trauma and progressive lesion since 1 year with normal serum calcium and phosphorous and all systemic diseases ruled out and came out with diagnosis of dystrophic calcification with variable presentation. Our 2<sup>nd</sup> patient presenting with painful nodule on atypical site without any definite history of trauma made us to think a lot about classification. Finally we concluded this case also as dystrophic calcification as she has come across any minor traumas in her daily life which might be unnoticed.

Dystrophic calcification associated with autoimmune connective tissue disorder in 20% of dermatomyositis patient. The pathogenesis of trauma associated calcinosis were probably due to release of alkaline phosphatase, intracellular calcium and alteration of local pH leading to precipitation of calcium followed by cell death. Collagen

also plays an important role [1]. Most common site involved in traumatic condition is heel in infants, infection site and surgical scar [6].

In this case, whitish plaque over the face with bilateral symmetry: a typical site for calcinosis cutis. It can present in any age and treatment of dystrophic calcification is much challenging as there is no definite controlled studies as per date [7,8]. Surgical removal can be the last resort but trauma may stimulate calcification [9]. Patient has been treated with diltiazem and she is on follow up. Our cases are interesting with its atypical site presentation with bilateral symmetry. Hence we are concluding with a point that we should kept in mind with differential diagnosis as calcinosis cutis when we come across a non specific bilateral white plaque on face (2) and nodule of short duration with chalky white discharge.

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