



## Bilateral calcinosis cutis hip region – a case report

### KEYWORDS

Calcinosis cutis, dystrophic calcinosis, subepidermal calcified nodule, tumoral calcinosis

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### ABSTRACT

*Calcinosis cutis is a condition of accumulation of calcium salts within the dermis. (1,2,3,4, ) Histologically, the lesion is composed of large and small deposits of calcium.(1,2,3,4,5 ) Foreign-body giant cell reaction can be seen..*

### Introduction

Calcinosis cutis is characterized by deposition of calcium in the skin. Calcinosis cutis is of four types: dystrophic, idiopathic, metastatic and iatrogenic<sup>(1,2,3,4,6,8)</sup>. Dystrophic calcinosis is calcification associated with infection, inflammatory processes, cutaneous neoplasm or connective tissue diseases<sup>(1,2,3,4)</sup>. Idiopathic calcinosis cutis is cutaneous calcification of unknown cause with normal serum calcium. Subepidermal calcified nodule and tumoral calcinosis are idiopathic forms of calcification. Metastatic calcification results from elevated serum levels of calcium or phosphorus<sup>(1,2,3,4, )</sup>. Iatrogenic and traumatic calcinosis are those types which are associated with medical procedures<sup>(1,2)</sup>.

Calcinosis cutis results in significant morbidity from local skin irritation, inflammation, ulceration, infection, intramuscular calcification, muscle atrophy, and joint contracture<sup>( 2,3,6,7,8, )</sup>. Associated disorders include, but are not limited to, autoimmune and connective tissue diseases, infections, panniculitis, and neoplasms<sup>( 1,3,5,7,8,)</sup>

### Case Report

60 /F patient presented with H/O complaints of hard, raised, flat skin lesions in bilateral hip region . The lesions were not itchy nor was there any discharge. There was no history of bony swellings, bony deformity, fracture, and muscle weakness, pain in the joints or abnormal postures.

General and systemic examinations were within normal limits. Dermatological examination revealed hard plaque like confluent lesions over hip region.

Routine investigations including CBC , ESR were normal. X-ray showed soft tissue calcification around hip joint. . Clinical diagnosis was ? Calcinosis cutis .Excisional biopsy was performed.

Gross : Specimen received in two containers. Rt.sided specimen composed of oval piece of tissue covered with skin m. 6.2 x 3.5 x 1.3 cm .Left side specimen consists oval piece of tissue covered with skin m. 6 x 4 x 1 cm. Cut section of both shows chalky white areas with gritty sensation

Microscopically both section shows tissue covered with skin. The dermis shows

multiple deposits of calcification, focal giant cell reaction and mononuclear cell

infiltration. Diagnosis given was calcinosis cutis.

### Discussion

Calcinosis cutis is a term used to describe a group of disorders in which aberrant calcium deposits form in the skin. Virchow initially described calcinosis cutis in 1855. It may be divided into 4 main groups, associated with localized or widespread tissue changes or damage (dystrophic calcification), that associated with an abnormal calcium and phosphorus metabolism (metastatic calcification), not associated with any tissue damage or demonstrable metabolic disorder (idiopathic calcification). Iatrogenic calcinosis cutis arises secondary to a treatment or a procedure<sup>( 1,2,3,4,5,7,8, )</sup>

Idiopathic calcinosis cutis is a rare phenomenon and occurs in the absence of known tissue injury or systemic metabolic defect<sup>( 1,2,4,5,7, )</sup>. Pathogenesis is not clearly understood and underlying mechanism is not known. It is postulated that there may be some abnormality in the metabolism of gamma-carboxy glutamic acid a unique amino acid, which is normally found in bones and tissues<sup>(1,2,3,4)</sup>. It has calcium and phospholipid binding properties. Probably GCGA gets deposited in the skin due to some aberration in its metabolism, leading to deposition of calcium phosphate in the skin. Investigations should be done to exclude any underlying pathology. Histological examination of the lesions reveals calcium deposits in the dermis on biopsy, which may or may not be surrounded by foreign-body giant cell reaction<sup>(1,2,3,5,6,7, )</sup>. Alternatively, massive calcium deposits may be located in the subcutaneous tissue<sup>(1,2,3, )</sup>. Small and medium-sized blood vessels may contain calcium deposits in areas of necrosis<sup>(1,2,4)</sup>.

Our case fits into the category of Idiopathic calcinosis cutis since no cause could be identified despite extensive investigations. Medical therapy of calcinosis cutis is of limited and variable benefit. If secondary to any underlying disease the cause should be treated.<sup>( 2,5,4,6,8,)</sup>

Indications for surgical removal include pain, recurrent infection, ulceration, and functional impairment<sup>(1,3,6,7,8, )</sup>. Because surgical trauma may stimulate calcification, initially treat test site before a large excision is pursued. Following excision, however, recurrence is common

### Conclusion:-

Calcinosis cutis is a condition where calcification of the skin and subcutaneous tissue occurs secondary to various disease states.

Figure 1} Gross showing hard lesion .



Figure 2.Gross : Cut section of both shows chalky white areas with gritty sensation



## Legends to figures

Figure 2} Microphotograph showing calcium deposits. ( H &amp; E stain , 10 x ).

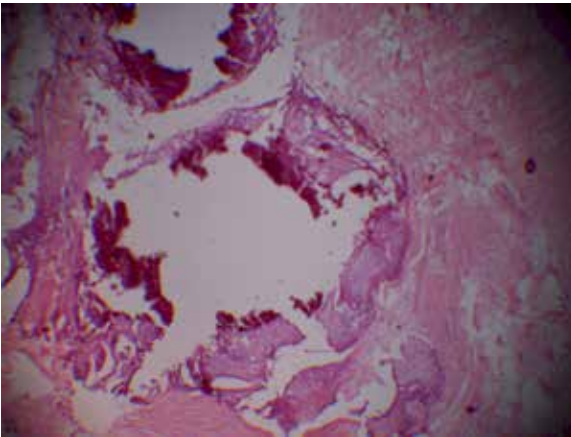
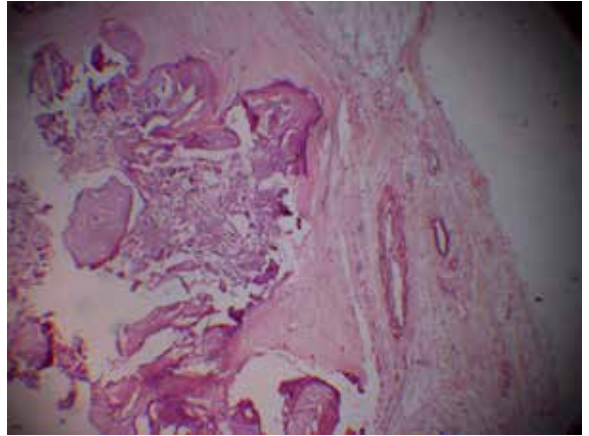


Figure 2} Microphotograph showing calcium deposits. with focal giant cell reaction ( H &amp; E stain , 10 x ).



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