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Case Report

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Primary Osteoma Cutis - A case report

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Abstract

Osteoma Cutis is a rare disorder characterized by spontaneous bone formation beneath the skin. The disease can be primary with no preceeding cutaneous lesions or secondary with an underlying cause of cutaneous ossification such as metaplastic reactions to inflammatory, traumatic or neoplastic processes. Osteoma cutis is most often a secondary phenomenon to local tissue alteration or pre-existing calcification. Primary osteoma cutis is exceedingly rare. Here we present to you a case – a 25 year old gentleman presenting with multiple swellings in the form of hard nodules like calcified tumours of varying sizes over his scalp, extremities, subungual regions, and over almost all the bony prominences of his body since the age of 5 years. The biopsy findings were consistent with Osteoma Cutis. The possible causes for secondary subcutaneous ossification were ruled out with appropriate investigations. Henceforth diagnosing Primary Osteoma Cutis. It can be easily confused with Tumour Cacinosis, which can be differentiated with a biopsy.

Keywords: Extra-pulmonary, Tuberculosis, Cheek, Immunocompetent, HIV negative.

INTRODUCTION

Calcified swellings in the body could mean spontaneous bone formation underneath the skin. This can be triggered by neoplasm, trauma or inflammation [1]. Rarely it can be a de novo process. We present one such case of multiple calcified swellings distributed all over the body.

CASE REPORT

A 25 year old gentleman presented with swellings all over his body since the age of 5 years. Starting as a peanut sized swelling over his back, it progressed to the size of a cricket ball within a month's time. Multiple similar swellings developed all over his body including the face, trunck, hips, upper and lower limbs (fig 1-4). After attaining a certain size the swellings would spontaneously rupture discharging blood, pus and a chalky white material occasionally. No fever, body pains or other constitutional symptoms were noticed. Patient experienced pain over the swellings at times of rupture and would wane off shortly.

Patient has no other co-morbidities. There was a strong family history of similar condition. His elder sister, elder brother and a maternal cousin had similar swellings. Patient was not evaluated elsewhere for this problem previously. On examination, military tumours of varying sizes over his scalp, extremities, sub-ungual regions and almost all the bony prominences, few of which were ulcerated following spontaneous rupture and few were healed. Other systems examination was normal. The lab parameters are as in table 1.

DISCUSSION

Osteoma Cutis is spontaneous new bone formation within the skin. Calcification, lamellae, lacunae and bone marrow may all be seen within the dermis or in the subcutaneous tissue [2],[3],[4]. Osteoma Cutis may be primary, in which there are no preceding cutaneous lesions or secondary in which there has been tissue trauma or inflammation with secondary bone formation [1],[5]. Primary Osteoma Cutis is very rare which often occurs with genetic disorders like Progressive Osseous Hyperplasia, Albright Hereditary Osteodystrophy, Fibrodysplasia Ossificans Progressive and Plate like Osteoma Cutis [1]. There is also an acquired form of primary ossification of skin without any genetic background known as Military Osteoma of Face.

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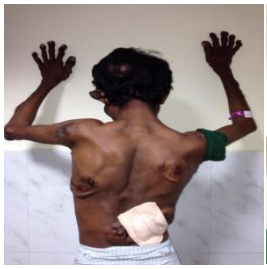
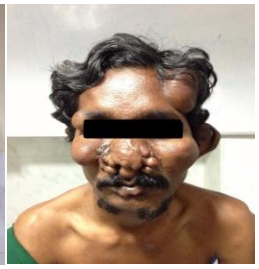
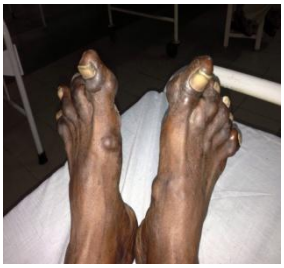
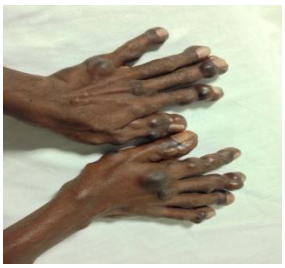

Fig 1 Fig 2 Fig 3 Fig 4

Table 1: Lab parameters

Complete blood counts	normal
RFT &LFT	normal
25OH vitamin D	13.2NG/ML
Intact PTH	34.5pg/ml
calcium	9.4mg/dl
phosphorus	4.1mg/dl
24hr urinary calcium	167mg/dl
24hr urinary phosphorus	493mg/dl

Therapy and Prognosis

1. Surgical excision- treatment of choice in most cases
2. No treatment required for smaller lesions
3. Dermabrasion- excision- for multiple lesions of face
4. Pseudopseudohypoparathyroidism should be closely monitored by an endocrinologist to prevent severe hypocalcaemia and seizures
5. Vitamin D and Calcium supplements are the mainstay therapies when needed
6. Patients should be screened periodically for hypothyroidism because of its frequent association with pseudohypoparathyroidism

Plate Like Osteoma Cutis

The term Plate like Osteoma Cutis describes cutaneous osteomas that satisfy the following criteria

1. Present at birth or first year of life
2. No evidence of abnormal calcium or phosphate metabolism
3. Absence of trauma or any predisposing event
4. Presence of atleast one bony plate with or without other cutaneous osteomas

Plate like Osteoma Cutis clinically manifests as hard plaques with gritty consistency varying in size from one to several centimeters, solitary or multiple, more common over the scalp, face and limbs. Over time there can be occurance of new lesions or increase in size of the existing lesions. Familial occurrence has been reported. The ossification is superficial and does not progress to affect the deeper structures which distinguishes it from POH. Surgical excision is the only form of treatment.

CONCLUSION

In our day to day practice if we come across a patient with multiple calcified swellings in the body, we must always consider a differential diagnosis for the same. Osteoma cutis whether primary or secondary should be borne in mind along with tumuour calcinosis which is a more common entity.

Conflict of interest – All authors have none to declare.

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