OSTEOMA CUTIS (A Case Report)

Maj N SRINATH*, Lt Col RS DHAKA+

ABSTRACT

A case of osteoma cutis in a woman of 48 years is reported. The primary cutaneous ossification has a unique congenital and noninvasive nature. The histological features of the lesion are illustrated.

MJAFI 1994; 50 : 158-159

KEY WORDS : Primary osteoma cutis, Cutaneous ossification

Introduction

The term osteoma cutis is applied to cases of primary cutaneous ossification in which there is no evidence of Albright's hereditary osteodystrophy in either the patient or his family [1]. Although secondary or metastatic calcification and even bone formation in pre-existing skin lesion is not uncommon, primary osteoma cutis is a most unusual finding and not frequently reported [2].

CASE REPORT

48 year old mother of soldier was admitted to a service hospital with history of a painless swelling over the left hip of three years duration. The onset of swelling was

insidious and it had gradually increased in size. There was no history of similar swelling elsewhere in the body of the patient or in her family members.

Examination of the patient revealed a moderately built lady with no evidence of any facial or skeletal abnormalities. There was a 10x8 cm swelling over the left hip. The surface of the swelling was raised and nodular. The overlying skin was hyperpigmented with white spots. The swelling was hard and fixed to the skin, but not to the deeper structures. There was no significant inguinal lymphadenopathy. Systemic examination was essentially normal. Routine investigations and biochemical parameters like serum calcium, alkaline phosphatase and protein determinations were all within normal limits. Radiographic studies showed radio-opaque densities in the lesion.

The lesion was excised *in toto* and wound closed primarily. The excised specimen was a 10x7x5.5 cm elliptical piece of tissue with skin on one side, the centre

* Graded Specialist (Surgery) Military Hospital, Belgaum 590 009; + Classified Specialist (Histopathology) Command Pathology Laboratory (SC) Pune 411040.

Fig. 1 Subcutaneous tissue showing spicules of bone. x 120.

of which was lobulated and hard. It was gritty and difficult to cut. The cut section showed whitish tissue processes extending into the subcutaneous fat with specks of calcification.

Microscopic examination showed stratified squamous epidermal lining with subcutaneous tissue. The dermal and the sub-cutaneous tissue showed spicules of bone of varying size (Fig 1). The bony areas contained a number of osteocytes and cement lines. Osteoblasts as well as new bone formation was at the periphery. Occasional multinucleated osteoclasts were seen (Fig 2). Some of the spicules enclosed areas of mature fat. Osteoid like areas at places showed specks of calcification. Histopathological features were consistent with osteoma cutis.

Discussion

Cutaneous bone formation may occur as a metaplastic change within a wide variety of benign and malignant conditions and many such cases have been reported [3]. Cutaneous ossification, in the absence of a preexisting or associated lesion, is unusual and has been described under a variety of names, including osteosis cutis multiplex, osteosis cutis [4] and disseminated congenital osteoma [2].

They may be easily distinguished from cutaneous ossification seen in Albright's hereditary osteodystrophy by absence of skeletal and facial abnormalities and absence of syndrome of pseudohypoparathyroidism (hypocalcemia not responding to parathormone) and pseudopseudohypoparathyroidism (normal serum calcium) [1].

Fig. 2 Multinucleated osteoclasts. x 240

They may be single or multiple and may be present at birth or appear later in life. Occurrence in more than one members of family is described, but is apparently rare [5]. The lesions vary from patient to patient in size and location. They are always hard and generally asymptomatic. They occur within or directly beneath the skin and the overlying cutaneous tissue may ulcerate with release of bony spicules.

The histogenesis of these osseous formations has not been fully defined. Lever [1] and Montgomery [6] suggest that these osteomas of the skin probably arise from mesenchymal cells in the embryonal rests and should be regarded as hamartomas.

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