A Simple Look-Up On Soft Tissue Osteoma: Report Of A Case.

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Citation

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Abstract

Soft tissue tumors of the body represent wide variety. Osteoma is a benign, slow-growing osteogenic tumor that is primarily located in the maxillofacial region. However, soft tissue osteoma or osteoma cutis or extraskeletal osteoma is observed extremely rare. Here, we report a soft-tissue osteoma located on the dorsum of the body that had started and grown silently. The main complaint was the mass. Excisional biopsy was successfully carried out. After all, the pathological analysis consisted of osteoma within the cutis.

INTRODUCTION

Osteoma is an osteogenic benign tumor that can be central, peripheral or extraskeletal (1). Central osteomas arise from endosteum, peripheral osteomas arise from periosteum and extraskeletal soft-tissue osteomas usually develop within a muscle (2, 3).

Cutaneous bone formation may be primary or secondary. If it is primary, there is no preceding cutaneous lesion or history; however, if it is secondary, bone forms through metaplasia within a preexisting lesion (4).

An extraskeletal soft-tissue osteoma is observed exceedingly rare. The most common involvement of soft tissue osteomas is reported on the tongue and the skin (1, 5-8). Furthermore, the skin welcomes mostly the face and extremities (1, 5-10).

CASE REPORT

An eighteen-year-old male patient applied with a non-traumatic, painless mass on his back. He had the mass for 4 years with no progressive grow-up. Everything was normal but, the palpation of the mass showed tenderness, tough and immobile 3x2 cm mass with sharp border. There was not a change on the color of the skin over the mass. The plain roentgenogram clearly showed the well circumscribed ossified lesion on the neighborhood of the T8 vertebra.

The excisional biopsy was carried out via local anesthesia (Figure 1). No invasion was noted around, and the mass was easily excised within the subcutaneous fat. The specimen pointed out a grey-white color, rough firm and encapsulation, grossly (Figure 2).

Figure 1

Figure 1: Intraoperative view of the mass. Please note that the lesion was entirely within the cutis, and well-circumscribed.

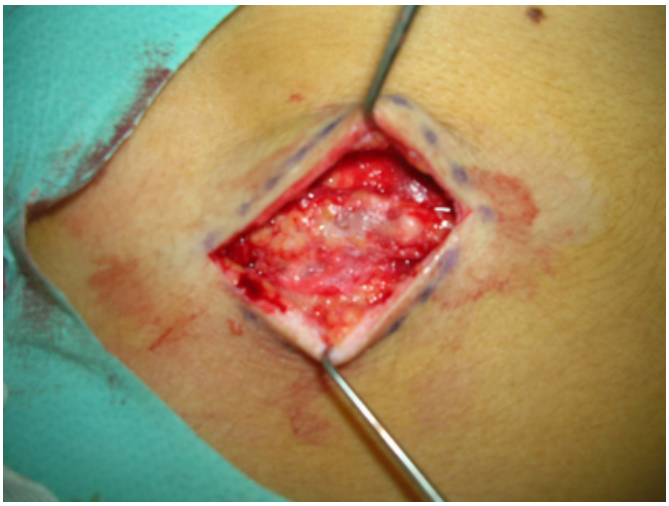
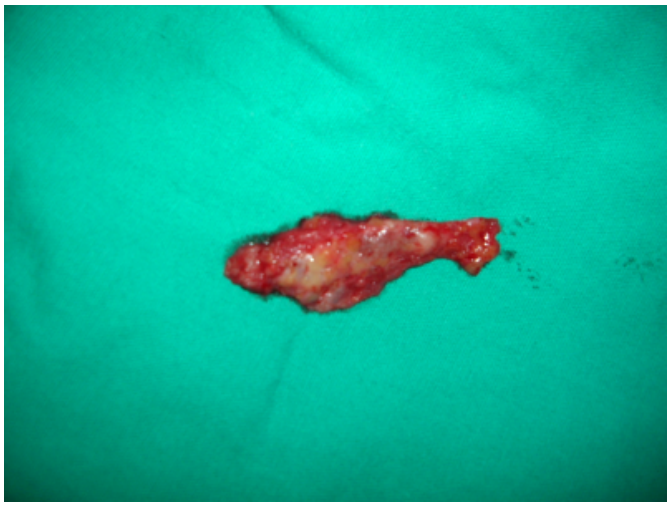


Figure 2

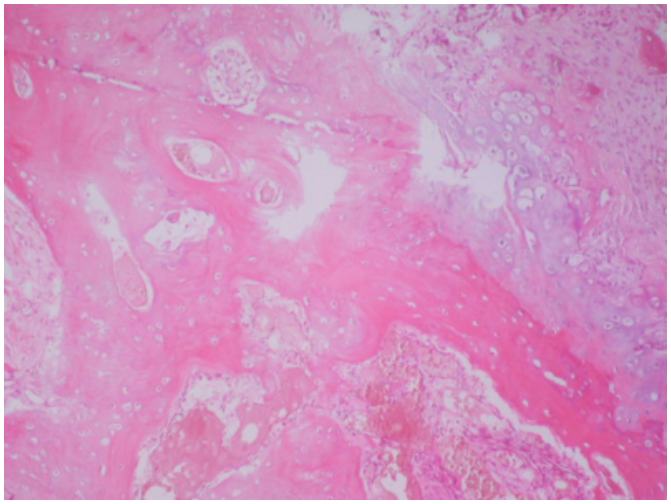
Figure 2: The specimen grossly that is 3x2 cm in size



The histopathologic examination revealed mature, dense, and lamellar bone formation as well as the cartilage tissue surrounded with connective tissue. The diagnosis was subcutaneous extraskelatel osteoma (Figure 3).

Figure 3

Figure 3: Microscopically, mature, dense, and lamellar bone formation can be seen with prominent cartilage formation surrounded with connective tissue (Hematoxylene & Eosine Stain, X50 magnification).



In one year follow-up, no complications were observed, and no recurrence was noted as well. In addition, the patient was unable to determine a new production for such a deposit or new formation at any site.

DISCUSSION

Tumors of extraskeletal soft tissue containing cartilage or osseous components are not common. Moreover, an osteoma of the soft tissue is extremely rare.

Osteoma cutis was first described by Wilkins in 1858(11, 12). Previous reports of the extraskeletal osteoma especially indicate predilection sites of skin and tongue (5-10, 13-16). The skin welcomes this kind of tumor frequently in the face, hand, hip, and thigh (9, 10, 17). On the other hand, in the surgical literature, there is only one report presented as an extraskeletal osteoma on the dorsum of the body (11).

The etiology of soft tissue osteoma is still unclear. According to Schweitzer et al, a soft tissue osteoma is part of the spectrum of posttraumatic ossifying musculoskeletal lesions (10). However, Kasper et al claimed a definition for a soft tissue osteoma as a spontaneous rise not after a traumatic or inflammatory process, including a grow-up from the adjacent periosteum or periarticular structures (9).

Soft tissue osteoma is classified as a pluripotent mesenchimal tumor (18). However, soft tissue osteomas lack the atypia and the hypercellularity which are pertaining to the malignancies such as osteosarcoma and are devoid of the zonal pattern that is typical in myositis ossificans which is abundantly confusing with soft tissue osteoma (4).

The differential diagnoses of the soft tissue osteoma include primary and secondary reasons like myositis ossificans, mesenchymoma, calcified gouty tophus, fibrodysplasia ossificans, tumoral calcinosis, mellrheostosis, pilomatrixoma, soft tissue chondromas and extraskeletal osteosarcoma, fundemantally (4, 19).

Primary cutaneous ossification can occur in Albright's hereditary osteodystrophy (AHO) and as osteoma cutis (4). AHO, an autosomal dominant disorder, may present subcutaneous or intracutaneous ossification, but moreover, includes the syndromes of pseudohypoparathyroidism and pseudopseudohypoparathyroidism. Mostly, primary osteoma cutis manifest with multipl cutaneous lesions (4). In addition, congenital osteomas occur in Gardner's syndrome and AHO, or in patients presenting with numerous, spontaneous osteoma cutis lesions without systemic manifestations, or disease (20).

Secondary reasons include various diagnoses as mentioned above. In addition, basal cell carcinoma (BCC), very rarely, may have ossification in nevoid BCC syndrome (21). Tumoral calcinosis can manifest itself in wide variety. Melanomas, malignant melanomas, intradermal nevi, chondroid syringomas, or mixed tumors of the skin may have secondary ossification by the means of enchondral ossification (22-25).

The choice of treatment for soft tissue osteoma should be surgical excision. Recurrence is extremely rare and yet, no malignant transformation has been reported elsewhere.

Henceforth, the practitioner must be aware about the probability of extraskeletal osteoma not only on the extremities or the maxillofacial region but also on the body. To anticipate the diagnosis, further radiologic techniques and intimate analysis of the blood shall be carried out.

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