EXTRASKELETAL CHONDROMA, A RARE SOFT TISSUE TUMOR CASE REPORT

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A rare case of a chondroma of soft tissue located in the first metatarsophalangeal joint of the right foot in a 65-year-old male patient is reported. Defining elements of the tumor under study are : 1) the asymptomatic and harmless clinical course 2) the lack of connection between the tumor and the underlying bone 3) the slow tumor development 4) the absence of age and sex predominance and 5) the characteristic tumor histological picture.

Key Words : soft tissue chondroma ; extraskeletal chondroma ; benign tumor.
Mots-clés : chondrome des tissus mous ; chondrome extra-osseux ; tumeur bénigne

INTRODUCTION

Soft tissue chondroma is a rare benign slowly growing tumor, located mainly in the hand and foot and probably arising from the fibrous stroma and not from mature cartilaginous or osseous tissue. It may also be found in the joint capsules of the knee, elbow and other joints.(1) Periosteal chondroma was first described by Lichtenstein and Hall in 1952 (5). Afterwards, other authors described more cases of this entity, and over 137 cases have now been reported (4).

It is obvious from the review of the literature that under the term extraskeletal chondroma many authors have also included juxtacortical or periosteal chondroma, a benign tumor located between bone and periosteum (4). Therefore, the number of cases of soft tissue chondromas is actually smaller than the number quoted.

CASE REPORT

A 65-year-old male patient came to the KAT Accident Hospital complaining of a painless slowly growing mass of the first metatarsophalangeal joint of the right foot, of 10 years duration. Laboratory tests were normal. Physical examination revealed a mass of the first metatarsophalangeal joint, slightly painful when pressed and reddish. Radiological examination showed a dense soft tissue mass with a lobular periphery near the adjacent bone with radiolucent areas, indicating cellular activity of the tumor mass (fig. 1). Complete excision of the tumor was performed, and the mass removed was sent for histological examination.

The gross appearance of the specimen revealed an encapsulated whitish mass measuring about 5 cm in its greater dimension, with a nodular surface, covered by a triangular (3 x 2 x 1.5 cm) piece of skin on one side. On sections the tumor seemed to have a lobular and partially fusiform appearance with diffuse calcification and spotty hemorrhagic infiltration. The mass was firm on palpation. Microscopic examination showed islands of mature hyaline cartilage, with variable cellularity and

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plump nuclei, arranged in a lobular pattern at the periphery of the tumor (figs. 2, 3).

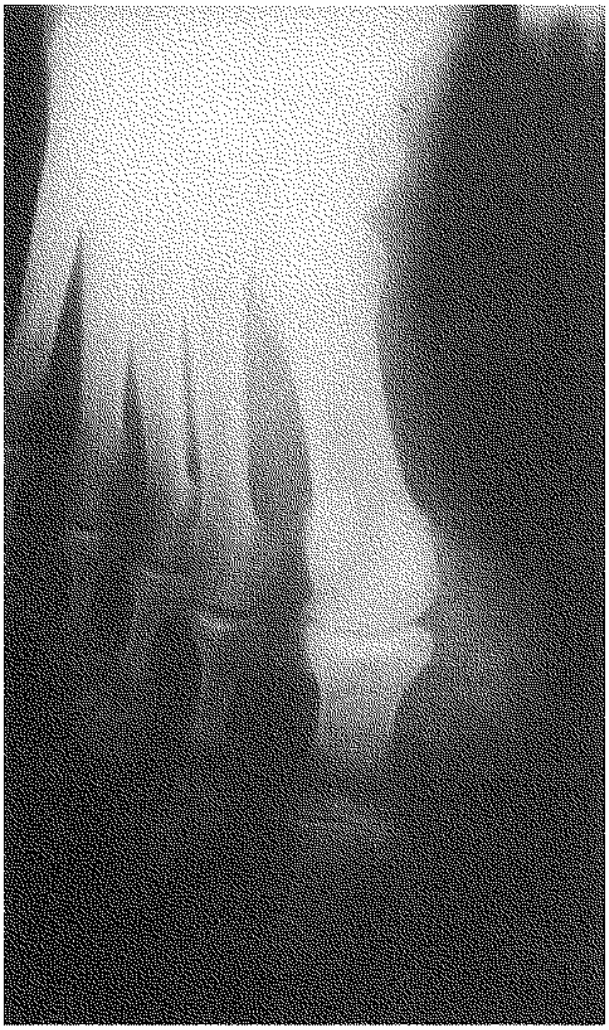

Fig. 1. — Frontal xray of the first metatarsophalangeal joint of the right foot showed a dense tumor mass adjacent to the joint with areas of radiolucency.

The islets of the hyaline cartilage were separated by richly vascularized interlobular connective tissue with extensive areas of fibrocartilaginous degeneration and myxoid changes. There was marked hyalinization and myxoid change of the tumor matrix and foci of calcification. A few multinucleated giant cells were also observed.

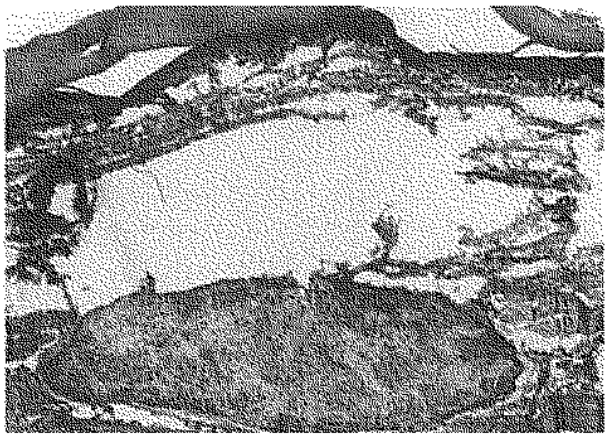

Fig. 2. — Peripheral islets of mature hyaline cartilage under the overlying skin. (H&E x 25)

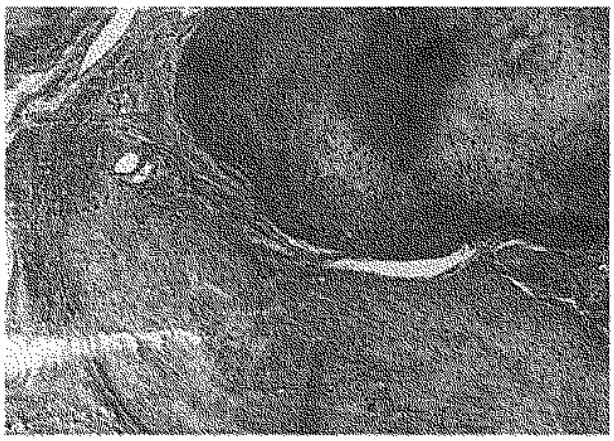

Fig. 3. — Island of fairly cellular hyaline cartilage surrounded by fibrous connective tissue stroma. (H&E x 40)

DISCUSSION

The differential diagnosis of extraskeletal chondroma must be made with other tumors and tumorous conditions with certain similar features but different clinical behavior.

The most important pathological conditions are juxtacortical chondrosarcoma, osteochondroma, synovial chondromatosis and sometimes juxtacortical chondromyxoid fibroma, periosteal desmoid tumor, tumoral calcinosis, etc (3).

Extraskeletal chondroma is a rare benign tumor, without any connection to the underlying bone, located mainly in the fingers (3), where over 80% of soft tissue chondromas are found. It seems,

according to Dahlin and other authors (2), to originate from tendon sheaths. It manifests as a slowly enlarging nodule or mass that seldom causes pain or tenderness. The tumor mainly affects adults between 30 and 60 years old. It is often associated with tendon, tendon sheath or joint capsule, and unlike periosteal chondroma, is located outside the periosteum (6).

Although some of the chondroblastic forms of extraskeletal chondroma may cause concern because of their atypical cellular features, there is no evidence that these tumors behave differently from the well-differentiated forms composed of mature hyaline cartilage. Therefore, it is notable that transformation of an extraskeletal chondroma to a chondrosarcoma has not been encountered so far; however this is rare in chondroid lesions of bone. Complete excision is the preferred mode of therapy.

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RÉSUMÉ

ANTHOULI-ANAGNASTOUPOULOU F. A., PAPACHRISTOU G. Une tumeur rare des tissus mous : le chondrome extra-osseux. Présentation d'un cas.

Les auteurs présentent un cas rare de chondrome des tissus mous, localisé au niveau de l'articulation métatarsophalangienne du premier rayon au niveau du pied droit chez un homme de 65 ans. Les éléments caractéristiques de cette tumeur sont : 1) son évolution asymptomatique et bénigne, 2) l'absence de connexion entre la tumeur et l'os sous-jacent, 3) la lenteur du développement tumoral, 4) l'absence de prédominance dans l'un ou l'autre sexe ou à un âge particulier, 5) un aspect histologique caractéristique

SAMENVATTING

ANTHOULI-ANAGNASTOUPOULOU F. A., PAPACHRISTOU G. Extraskeletaal chondroma, een zeldzame weke delen tumor. Een geval.

De auteurs beschrijven een zeldzaam geval van weke delen chondroma gelegen in het rechter eerste metatarsephalangeaal gewricht van een 65 jarige man. Karakteristiek voor deze tumor zijn : 1) het asymptomatisch en goedaardig verloop, 2) de afwezigheid van contact tussen de tumor en het onderliggend bot, 3) de trage groei, 4) het ontbreken van enige voorkeur voor leefijd of geslacht, 5) het typisch histologisch beeld.