



Case Study: Subclavicular Extraosseous Chondroma

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ABSTRACT

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Extraosseous chondroma is a rare soft tissue tumor composed of hyaline cartilage with no connection to bone or periosteum. Chondroid lesions present radiological aspects that are common for benign lesions and conventional low-grade chondrosarcomas. The differentiation is not always possible and should be considered a meticulous clinical and pathologic imaging. It can sometimes be misdiagnosed as a synovial cyst or a more serious condition such as synovial sarcoma.

We present the case of a 14-year-old soccer player, presented to the trauma and orthopedic service of the Center of Medical Excellence in Height (CEMA by FIFA) with a history of 4 years ago with a solid abnormality characteristic located in the right subclavicular area. An ultrasound study was requested, which reported a lobulated, hypoechoic subcutaneous nodule, with acoustic reinforcement and without vascularity with Doppler. At radiographic level, normal soft tissue is shown, without nodular lesions. The nodule was surgically removed, then, was sent to histopathology study, which reported: Fibroadipose tissue of the periclavicular region with changes compatible with soft tissue chondroma - extra-skeletal- without lesion on the resection edges. In addition, a literature review was made focused on the search for subclavicular extraosseous chondromas, finding no case in the literature, for which this report was made, due to the strange location of the chondroma.

KEYWORDS:

Extraosseous chondroma, chondrosarcomas, radiography.

INTRODUCTION

Extraosseous chondroma (EC) is a rare soft tissue tumor composed of hyaline cartilage. The frequent sites of CE are the hands and feet and it is rarely reported in the pediatric population¹.

They are considered rare benign mesenchymal tumors that are most commonly found in the pelvis and ribs, and rarely in the head and neck region². It is formed by well-defined cartilaginous nodules that develop in its soft tissues, without adherence to the bone or the periosteum, which differentiates it from juxtacortical or periosteal chondroma³.

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Chondromas and chondrosarcomas are cartilage-forming tumors, these neoplasms exist at opposite ends of the pathological spectrum, ranging from benign chondroma to high-grade malignant chondrosarcoma. Unlike other sarcomas, a patient's long-term prognosis depends on the grade of the tumor. A complete en bloc resection is the ideal method of surgical treatment⁴.

Histologically, they are more cellular than ordinary osteochondromas or enchondromas⁵. A slowly growing soft tissue mass is the usual presenting symptom. Sometimes localized pain in the absence of a history of trauma is the main complaint⁵.

Treatment consists on a simple excision of the cartilage lobe and curettage of the scleral cortical base or en bloc excision of the affected area⁶.

We present an extremely rare case of a right subclavicular mass in a 14-year-old man who underwent surgery to a total resection, with the final diagnosis of Extra- osseous Chondroma⁷.

CASE REPORT

This is a male who, at 14 years of age, presented to the trauma and orthopedic service of the Center of Medical Excellence in Height (CEMA by FIFA), for presenting a solid abnormality characteristic located in the subclavicular area, the patient refers a slow development about 4 years ago, but it was not painful, currently he began to present pain on a scale of 9, according to the Visual Analogue Scale (VAS), the traumatologist who performed his Evaluation indicates radiography and sonography, which is why it is diagnosed as “soft tissue chondroma”.

The nodule was surgically removed, then, was sent to histopathology study, which reported: Fibroadipose tissue of the periclavicular region with changes compatible with soft tissue chondroma -extrasosseous- without lesion at the resection edges.

Radiography (See Figure 1) shows normal soft tissue, without nodular lesions. Clavicles with normal cortical bone without bone deformity. Congruent joints with normal amplitude.

Histopathological report: Nodule 1.8 x 1.2 x 1.0 cm, lobulated surface of reddish brown color, solid when cut, with cartilaginous appearance and firm consistency. Vascularized connective tissue with hyaline, multilobed cartilaginous nodule, irregularly distributed chondrocytes with abundant cytoplasm, small, round or ovoid nuclei with fissures, condensed chromatin, without atypia or mitosis, basophilic chondroid matrix, focal calcification, fibrotic periphery, hyalinization, areas of hemorrhage, without lesion in edges or bone tissue that suggests origin of the nodule.

Actually, the patient performs daily activities. An image (See Figure 3) with evidence of a scar from his surgical procedure is attached.



Figure 1. X-Ray Chest, CEMA by FIFA

Echsonography (See Figure 2) shows a hypoechoic, lobulated subcutaneous nodule with acoustic enhancement and no vascularity with Doppler, adjacent to the right sterno-clavicular joint and not in contact with the clavicle.



Figure 3. Incision Scar, CEMA by FIFA

DISCUSSION

Soft tissue chondroma is a rare clinical entity. It has the following characteristic features:

- Benign clinical course.
- Not attached to underlying bone.
- Slow growth.
- The absence of predominance of age and sex
- The histological picture

CONCLUSION

Having a better understanding of the nature of soft tissue chondromas should help surgeons anticipate the diagnosis in the case of an atypical presentation and should also help them feel more comfortable in managing treatment decisions related to these histologically worrisome lesions. , albeit benign. That is the reason of the presentation of this case, unusual in our population, specifically due to its location.

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Conflict of Interest

The authors declare no conflict of interest.

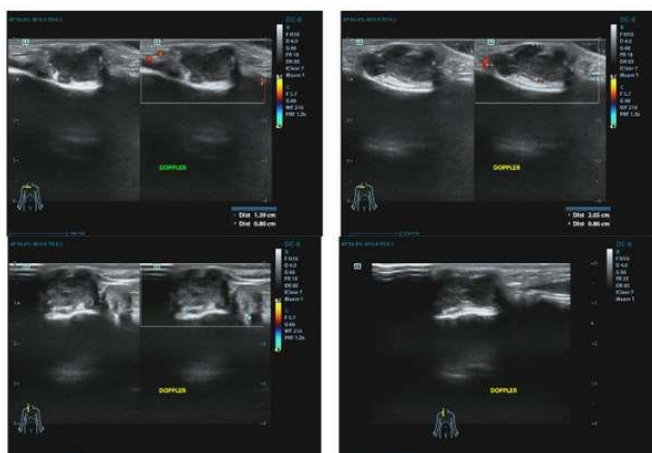


Figure 2. Echsonography, CEMA by FIFA

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