International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

# Extraskeletal Chondroma of the Finger in Young Girl: A Case Report

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**Abstract:**
Extraskeletal chondroma is a rare benign tumor, In most cases, the origin of these tumors has yet to be determined, The clinical exam is characterized by the appearance of a painless mass, generally less than 3 cm in size. The only treatment for this condition is surgery, which involves the removal of a large part of the tumor. Histologically, low-grade soft tissue chondrosarcoma is to be feared. Recurrences are rare. We report a case of young girl who present an extraskeletal chondroma of the finger, who had a complete resection with no recurrence.

**Keywords:** hand, children, chondroma, extraskeletal.

## Introduction:

Extraskeletal chondroma is a rare, benign tumor whose preferential location is the feet and hands, and exceptionally the trunk, head and neck [1]. The diagnosis of certainty is anatomopathological and must rule out bone or periosteal chondroma or synovial osteochondromatosis. report the case of a chondroma of the soft parts of the finger.

## Case report

An 11-year-old right-handed girl presented with a small swelling of the palmar surface of the 3rd finger of the right hand, evolving over a period of 3 years and causing pain on mobilization of the finger, with no notion of trauma or fever.

Clinical examination revealed a palpable mass on the palmar surface opposite P1 on the 3rd finger of the right hand, mobile and painless, measuring about 2 cm with no inflammatory signs. The rest of the clinical examination was unremarkable.

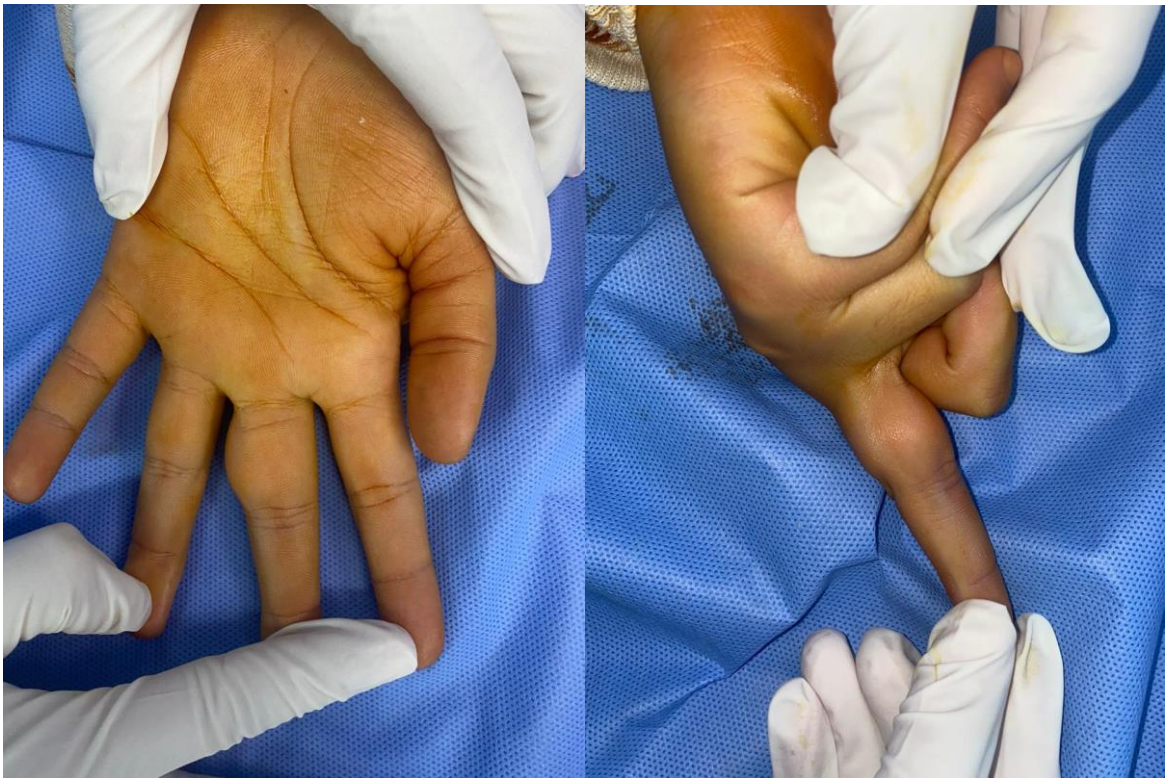

**Fig 1: A mass of about 4 cm in diameter of the finger**

A standard X-ray of the hand was unremarkable.

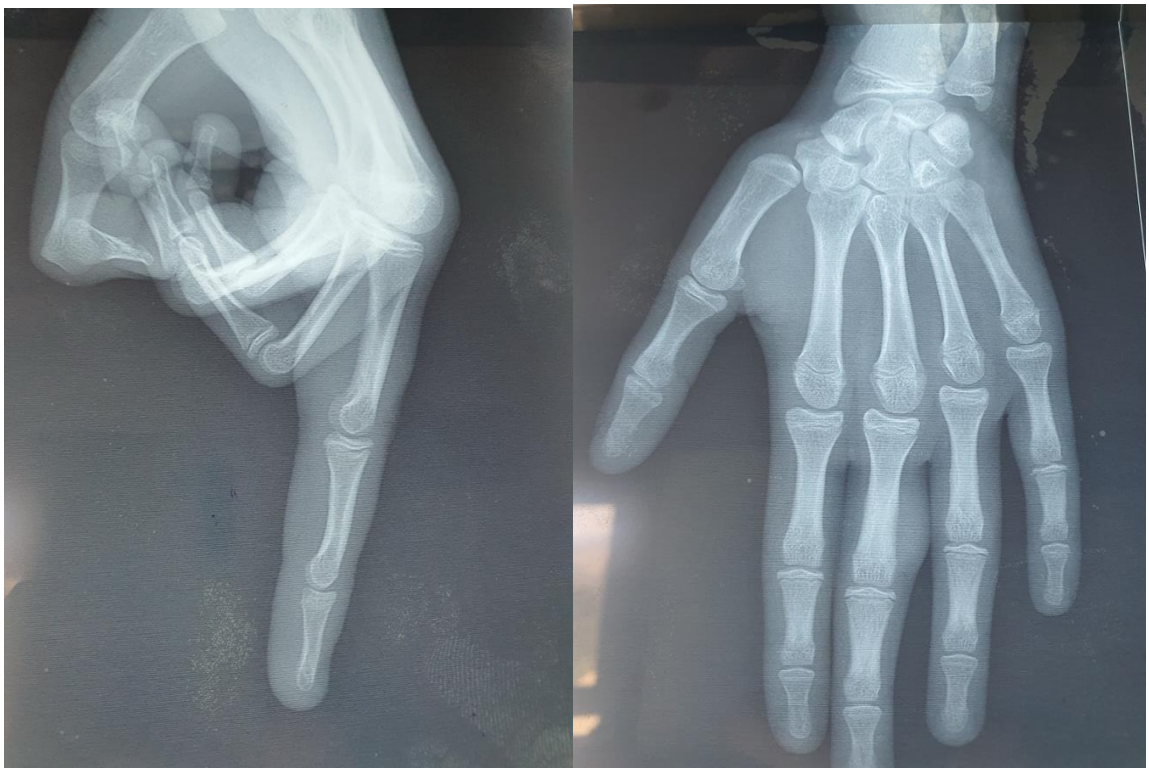

**Fig 2: X-ray of the hand: soft tissue swelling, no bone lesions**

An ultrasound scan revealed an oval formation opposite the anterolateral of the proximal phalanx of the 3ème radius of the right hand, with regular contours, well limited, not taking color Doppler, measuring

18x11mm. This formation rests partially on the tendon of the flexor muscles of the finger, with respect for its fibrillar aspect and its mobility in dynamic exploration, with respect for the overlying and underlying joints.

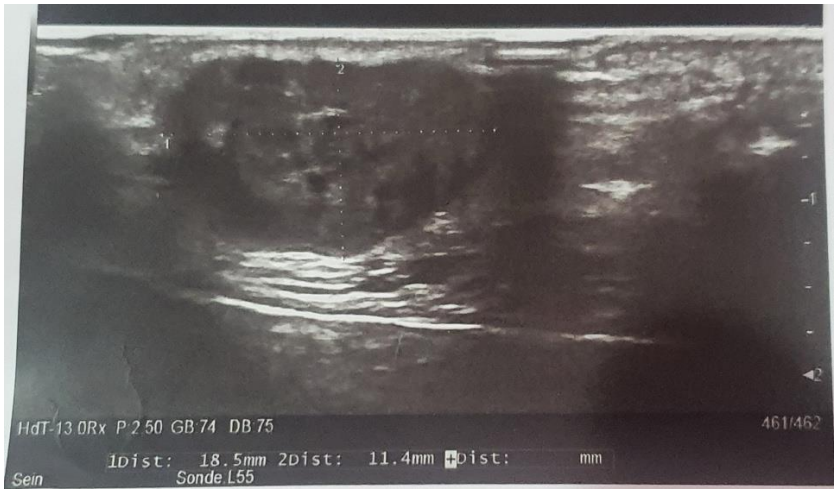


**Fig 3: Ultrasound examination of the third finger of the right hand shows an avascular mass of about 18x11 mm, attached to the flexor tendons.**

Magnetic resonance imaging showed an eccentric nodular lesion in the palmar soft tissue of the proximal phalanx of the 3ème right finger, which appeared to extend into the flexor tendon sheath and contained haemosiderin stigmata.

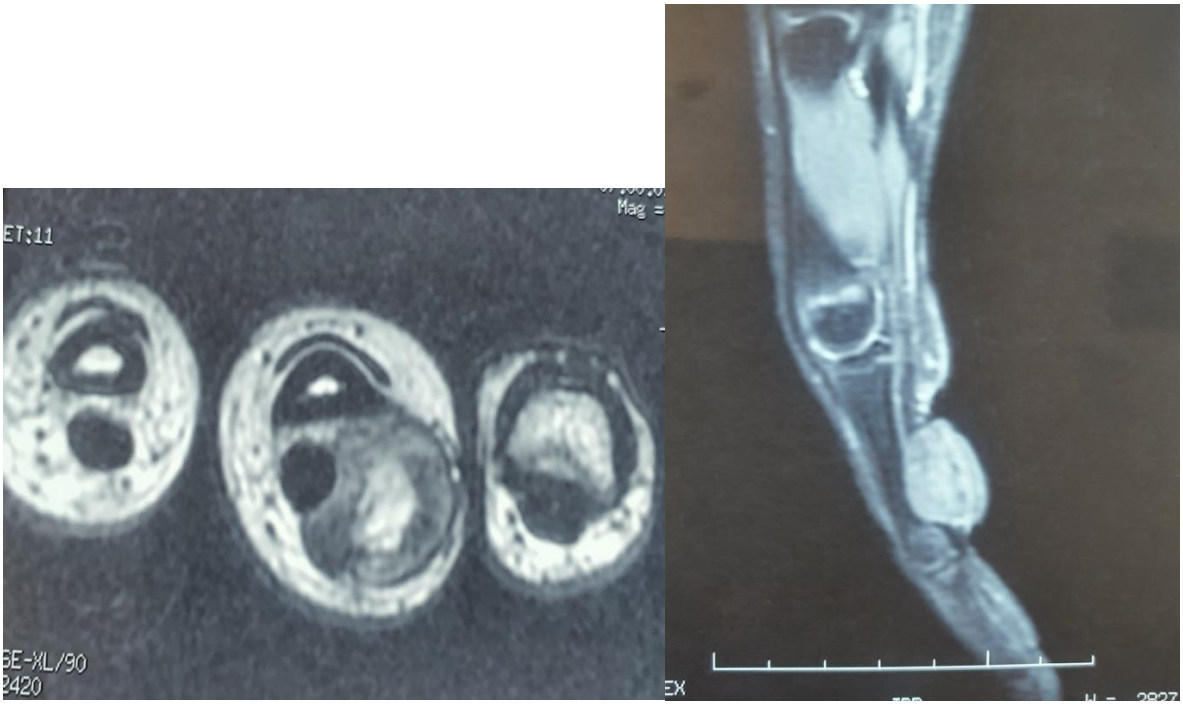

**Fig 4: transverse and sagittal sections showing the appearance of the mass on MRI**

The patient underwent a surgical cure with removal of the entire mass, which was free, well-limited and encapsulated in the soft tissues, with no real connection with bony or tendinous structures.

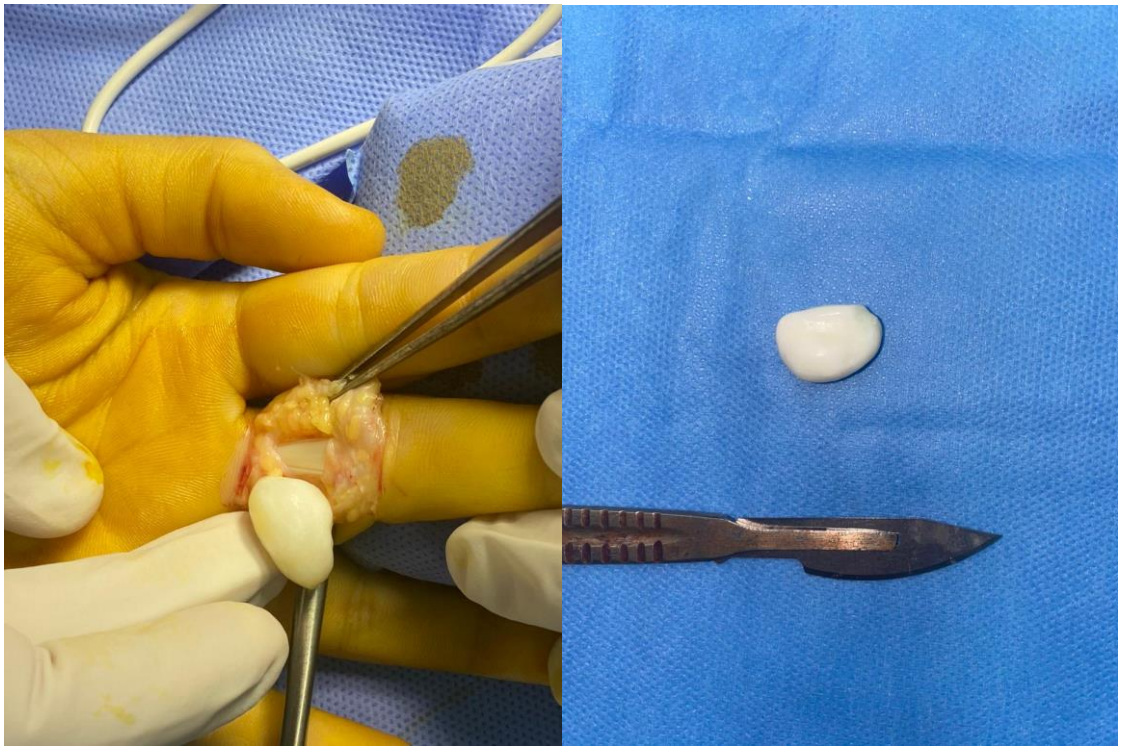

**Fig 5: a per operative view showing a mass and after resection**

Pathological examination reveals a soft tissue chondroma

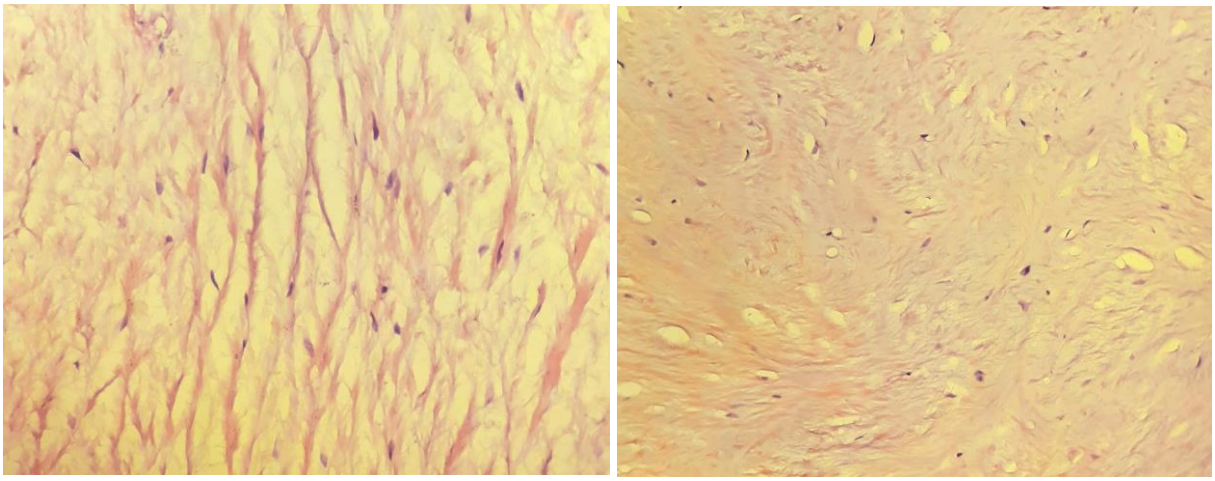

**Fig6 : histology of the mass after resection wich confirms a chondroma.**

The patient progressed, with normal finger mobility and no recurrence after one year's follow-up.

**Discussion**

Soft tissue chondromas are rare, benign cartilaginous tumors that are highly unusual in that they are not only extraskeletal, but also appear to have no anatomical connection with normal synovial structures (articular and tendinous). Indeed, extraosseous cartilage lesions of the hand are essentially represented by synovial and tenosynovial chondromatoses on the one hand, and extra synovial soft tissue chondromas on the other. The first two lesions originate in the joint synovium and tendon synovium [2].

In most cases, the origin of these tumors has yet to be determined, but they are thought to be a proliferation of the synovial, and some authors have likened them to synovial chondromatosis, a chondromatosis that generally affects the large joints [3].

Dahlin and Salvador [1] believe that the starting point is synovial, while Uheara and Becker [4], Rosenfeld and Kurzer [5] find its origin in the production of connective tissue by metaplasia or activation of heterotopic cartilaginous islets. In the hand, repeated microtrauma has been incriminated in the development of these tumors [6-10].

The clinical exam is characterized by the appearance of a painless mass, generally less than 3 cm in size, which develops slowly. This mass causes pain and oedema in 19% of cases, most frequently affecting the fingers [2,4, 11].

Radiographs may show areas of radiodensity without calcifications. The radiological appearance varies according to the calcium content of the tumor. Magnetic resonance imaging (MRI) also depends on the degree of mineralisation of the calcifications. However, it is not always possible to tell from MRI whether the tumor is synovial or extrasynovial [12-15].

The only treatment for this condition is surgery, which involves the removal of a large part of the tumor. Removal of the tumor is usually straightforward as it is encapsulated and well limited in relation to neighboring tissues.

Histologically, low-grade soft tissue chondrosarcoma is to be feared. Recurrences are rare but have been described [8].

Chung and Enzinger [11] reported recurrences in 18% of cases, and can be explained by incomplete excision.

## Conclusion

Although it has been reported several times in the literature, soft tissue chondroma is not a diagnosis that usually comes to mind when confronted with a tumor of the hand. X-ray and MRI may suggest this tumor. Surgical excision, which is often simple, should attempt to guide the pathologist in excluding a bony, periosteal, articular, or tendinous origin for this chondroma.

## Declaration of competing interest

The authors have no conflict of interest to declare.

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