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Chondroma of the Thumb Complicated by an Inetrphalangeal Dislocation: A Case Report

Case Report

Khalid Chmali*

Orthopedic and Trauma Surgery Department; Provincial Hospital of Boulemane, Morocco.

Abstract

Soft tissue chondroma is a benign and rare tumor. We report a specific case of this type of tumor, and we discuss it through a review of the literature.

Keywords: Chondroma, Upper Limb, Thumb, Tumor, Cartilag, Inetrphalangeal Dislocation.

Introduction

Soft tissue chondroma of the hand is a rare cartilage tumor, usually seen in adulthood. The treatment is based on surgical excision. The definitive diagnosis is based on the pathological examination.

Case Report

This is a 45-year-old patient, right-handed, without a notable pathological history, who consulted for a swelling of the right thumb, spontaneously appeared, evolving for 5 years and complicated 6 month ago by dislocation of the interphalangeal (IP) joint. The tumor was located on the palmar surface of the head of the first phalanx (Figure 1), without skin changes, of firm consistency, mobile, and painless. The standard x-ray of the right thumb (Figure 2) showed circumferential opacity over the first phalanx, associated with dislocation of the IP joint. The excision of the tumor was easy and the reduction of the dislocation was stable. Surgical exploration objectified that the tumor was yellowish, encapsulated, cartilaginous in appearance, unrelated to the articular synovium or periosteal tissue and independent of neighboring bone (Figure 3) and tendon structures, it was 2 x 1cm. Histological examination confirmed the diagnosis of soft tissue chondroma.

Results

The patient was seen again at the last follow-up of 1 year, no tumor recurrence was noted, and the mobility of the thumb was preserved after functional rehabilitation sessions.

Discussion

The soft tissue chondroma of the hand is a benign [1-5] and rare cartilage tumor: Chung EB et al., [6] described 104 cases over 23 years. It is localized at the extremities in 94% of cases [5], the hand remains the preferred localization in 64% of cases [6]. The thumb is a much rarer location [6]. It corresponds to an extra-synovial cartilage proliferation without any anatomical relation to the articular or tendon structures [7]. The starting point of this extra-skeletal tumor is still a subject of debate, the most plausible hypothesis is the activation of heterotopic cartilaginous islands which would be at the origin of this tumor [8, 9], since it is found in other viscera (liver, kidney…). It is seen in adulthood between the ages of 30 and 60 as a painless mass that evolves very slowly [3, 5, 6, 10, 11]. The patient consults after a variable delay of 1 to 50 years [5]. Our patient's consultation time was 5 years. The tumor can be symptomatic, Boudart et al., [5], Hoffman et al., [12] reported compression of the median nerve at the wrist in relation to the tumor mass. The radiological appearance of extraosseous chondroma varies depending on the extent of calcification of the tumor site. This calcification is present in 33 to 70% of cases [13, 14], in the center of the lesion, diffuse calcification may occur at a late stage. Magnetic Resonance Images (MRI) also depend on the degree of tumor calcification, and cannot confirm the origin of the tumor: Synovial or extra-synovial [15]. The treatment of this tumor is surgical excision without prior biopsy, given the criteria

***Corresponding Author**:
Chmali Khalid,
Orthopedic and Trauma Surgery Department; Provincial Hospital of Boulemane, Morocco.
E-mail: khalidabdo55@gmail.com

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Figure 1. Right thumb Chondroma.

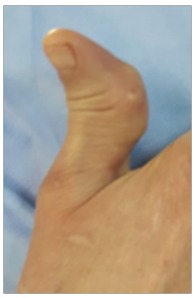


Figure 2. Standard x-ray appearance of thumb chondroma.

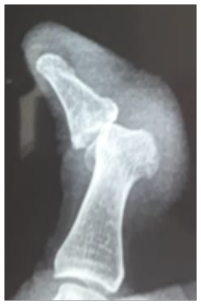
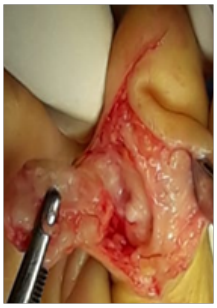


Figure 3. The excised tumor.



of benignity and easy resection of the tumor [4]. The definitive diagnosis is based on histological examination, the tumor must be differentiated from low-grade soft tissue chondrosarcoma [3, 4, 16]. The recurrence rate after resection does not exceed 18% according to Chung EB et al., [6]. This recurrence is attributed to incomplete resection or in connection with doubt about the histological nature [16]. There have been no reports of malignant transformation of a pre-existing soft tissue chondroma.

Conclusion

Soft tissue chondroma of the hand is not usually a diagnosis of a tumor of the soft tissue of the hand. The confirmation of the diagnosis is histological. Complete surgical excision prevents recurrence.

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