



## Ostéoid ostéoma of the ulnar styloïde. A case report and review of the literature

Aziz.Mortaji, Omar.Margad, Khalid.Koulali and Farid.Galua

Department of Orthopedics trauma, military hospital Avicenne, Marrakech, Morocco.

### ARTICLE INFO

#### Article history:

Received: 2 October 2014;

Received in revised form:

25 November 2014;

Accepted: 6 December 2014;

#### Keywords

Ostéoid ostéoma,

Ulnar styloid,

Benign tumor.

### ABSTRACT

The authors bring back a case of ostéoid ostéoma of the ulnar styloïde. It was about a 26-year-old, military young man, who appeared in consultation for pain of the left wrist of inflammatory speed feigning monoarthritis. The diagnosis of the ostéoid ostéoma was evoked to the standard radiography and the scanning, and confirmed by the anatomopathologique examination. The treatment was surgical by percutaneous resection under control scopique with good result.

© 2014 Elixir All rights reserved.

### Introduction

The osteoid osteoma is a benign tumor in the common location diaphyses of the long bones of the lower limb. The wrist is a much rarer location where juxtaarticular location of the tumor is the cause of an intricate symptom can lead to misdiagnosis.

We report a case of osteoid osteoma in very rare localization at the level of the ulnar styloid, diagnosed early, with review of the literature

### Observation

He was a military man of 26 years who presented for consultation in the left wrist pain lasting for 4 months, gradual onset occurs on exertion and especially the movement of pumps during sports exercise military. Then appearance nocturnal pain of inflammatory evoking an array of monoarthritis wrist. Treatment with analgesic and anti-inflammatory prescribed by the physician of the body have not improved anything. It was addressed to us for advice.

Clinical examination revealed a non-swollen wrist movements were correct without any limitations, but the pressure of the ulnar styloid directed by the patient himself was very painful. Laboratory tests were normal, especially ESR, CRP, and serology arthritis. The comparative standard anteroposterior and profile of both wrists (Figure 1) showed a filling defect localized to the left ulnar styloid, citing an osteoid osteoma. A CT scan (Figure 2) performed to visualize the nidus showed a gap in rosette in the middle of the ulnar styloid bone surrounded by condensation reaction.

The patient was treated under local anesthesia by ulnar block and mini medial resection percutaneous fine curette under the radiosopic control. The product resection was told the pathologist who confirmed the histological nature of osteoid osteoma showing a bone osteoid formation in a highly vascular stroma.

The outcome was very satisfactory with complete disappearance of pain.

### Discussion

The osteoid osteoma is a benign tumor that affects adolescents and young adults. Individualized by Jaffe in 1935 [1]. Its pathogenesis is still unclear. Its frequency is estimated by

Dahlin [2] at 11 % of all benign bone tumors. Clinically it is manifested by diurnal and nocturnal pain relieved by nonsteroidal anti-inflammatory drugs or salicylates. But it is rarely found after Ghiam [3] and Savornin [4]. The diaphysis of long bones location of the lower limbs is the most common with 60 to 70% of patients [5]. At hand it is 6 to 13 % [6, 2,16]. It preferentially affects phalanges, then the metacarpals, and finally the carpal bones [7].

The osteoid osteoma performs a chronic inflammatory reaction in the surrounding tissue with a periosteal reaction, bone sclerosis and synovitis associated with the production of prostaglandins by the tumor [8].



Figure 1. X-ray view showing a rounded filling defect of the ulnar styloid

In exceptional intra-articular locations in the upper limb have been reported, elbow and hand. This intra-articular location is sometimes responsible for making symptoms falsely suggest a rheumatoid disease or carpal tunnel syndrome [9, 10,11].

Radiologically standard, the diagnosis of osteoid osteoma is difficult intra-spongy according to Folinais and Thelen, the nidus is less easily discernible in the spongy little or no revamped tissue and peripheral condensation can be reduced to a single dense edged or absent or misleading, sitting at a distance. Hence the value of computed tomography that evokes the diagnosis and provides very accurate topographic identification before surgery. [5]

If diagnostic problem, scintigraphy immediately stands out, its negativity virtually excludes the diagnosis of osteoid osteoma.

Wrist and among the carpal bones, the scaphoid is the most commonly involved [3, 4, 6, 12,13,14], the attainment of the scaphoid and the capitate is second after that of the lunate .

The location in ulnar styloid was not published until now to our knowledge.



**Fig. 2. Rosette appearance with circumferential thickening of the spongy bone**

The treatment remains surgical resection and is based on the nidus, combined according to its importance to bone graft [4,6].

For ten years, the practice of percutaneous treatments guided by the scanner was developed. These techniques have a precise location, a reduced incision, limited bone sacrifice and a short hospital stay. [5] In our case, it led to the immediate recovery without sequelae. Simple curettage is insufficient, it may be followed by recurrence [4], [11]. Diagnostic certainty is provided by histology, which also determines the quality of resection, which only the immediate and prolonged pain relief assert completeness.

#### Conclusion

The intra-articular osteoid osteoma of the wrist is very rare. It can maintain an inflammatory response, suggestive monoarthritis leading, if neglected, to destruction of the joint. The diagnosis should be considered in chronic pain refractory to

anti-inflammatory treatment with the appearance of a geode roundel. Excision of the tumor provides the cure.

#### Declaration of interest

The authors declare that they have no conflicts of interest related to this article.

#### References

- [1] JAFFE HL : Osteoid osteoma. A benign osteoblastic tumor composed of osteoid and atypical bone. Arch Surg, 1935, 31, 709.
- [2] DAHLIN DC : Bone tumors, 39th edition. Charles C. Thomas, Springfield/illinois), 1979, 75-86.
- [3] GHAM GF, BORA W : Osteoid osteoma of the carpal bones. J Hand Surg, 1985, 3, 280-283.
- [4] SAVORNIN C, SOURY P, DOURY P : L'ostéome ostéoïde de la main. Rev Rhum Mal Osteoartic, 1990, 57, 419-421.
- [5] FOLINAIS D, THELEN Ph : L'ostéome ostéoïde. Comment faire son diagnostic? Cahiers d'Enseignement de la SOFCOT Expansion Scientifique Française, Paris, 1988, 29, 350-358.
- [6] ALLIEU Y, LUSSIEZ B : L'ostéome ostéoïde au niveau de la main. À propos de quarante six cas. Ann Chir Main, 1988, 7, 298-304.
- [7] Le Huec JC, Lesprit En Mainard M, Le Rebeller A : Osteoid osteoma of the elbow. *J Shoulder Elbow Surg*, 1998, 7, 160-163.
- [8] Marcove RC, Freiberg RH : Osteoid osteoma of the elbow : a diagnostic problem. *J Bone Joint Surg (Am)*, 1966, 48, 1185-1190.
- [9] HERNDON JH, EATON RG, LITTLER W : Carpal-tunnel syndrom. An unusual presentation of Osteoid osteoma of the capitate. *J Bone Joint Surg (Am)*, 1974, 56, 1715-1718.
- [10] TRICOIRE JL, DUPORT M, PUGET J, MAZIÉRES B, CHIRON P, UTHEZA G : Ostéome ostéoïde du trapézoïde. Ann Chir Main, 1991, 10, 175-177.
- [11] TUBIANA R, MENKES CJ, DE SÈZE S : Localisation carpienne de l'ostéome ostéoïde. Rev Rhum Mal Osteoartic, 1978, 45, 133-135.
- [12] DOYLE LK, RUBY K, NALEBUFF EG, BELSKY MR: Osteoid osteoma of the hand. *J Hand Surg*, 1985, 3, 408-410.
- [13] KERNOHAN J, BEACOM JP, DAKIN PK, HELAC B : Osteoid osteoma of the pisiform. *J Hand Surg*, 1985, 3, 411-414.