OPEN ACCESS

GAVIN PUBLISHERS

Journal of Orthopedic Research and Therapy

Fekhaoui MR, et al. J Orthop Ther: JORT-100.

DOI: 10.29011/2575-8241. 000100

Case Report

Juxta Articular Myxoma of the Hand: A Case Report and Review of the Literature

Mohammed Reda Fekhaoui[1*], Ismail Kabbaj[1], Laila El'otmani[1], Reda-Allah Bassir[2], Moncef Boufettal[2], Mustapha Mahfoud[1], Mohammed Saleh Berrada[1]

[1]Department of Trauma and Orthopaedic Surgery, Ibn Sina University Hospital, Rabat, Morocco

[2]Department of Anatomy, Faculty of Medicine, Mohammed V University, Rabat, Morocco

[*]**Corresponding author:** Mohammed Reda Fekhaoui, Department of Trauma and Orthopaedic Surgery, Ibn Sina University Hospital, Rabat 10100, Morocco. Tel: +212661293150; Email: rfekhaoui@icloud.com

Citation: Fekhaoui MR, Kabbaj I, El'otmani L, Bassir RA, Boufettal M, et al. (2018) Juxta Articular Myxoma of the Hand: A Case Report and Review of the Literature. J Orthop Ther: JORT-100. DOI: 10.29011/2575-8241. 000100

Received Date: 16 May, 2018; **Accepted Date:** 18 May, 2018; **Published Date:** 25 May, 2018

Summary

Juxta articular myxoma is a rare, benign tumor rarely found in the hand. The treatment is a conservative surgical excision with a high rate of local recurrence. We report a case of a juxta articular myxoma of the hand, in a 42-year-old man, managed via complete surgical excision with no recurrence after four months. To our knowledge this is the third reported case in the hand.

Keywords: Hand; Juxta Articular Myxoma; Tumor

Introduction

Juxta Articular Myxoma (JAM) is a rare benign tumor of mesenchymal origin [1]. It's usually found around the knee, occasionally near the shoulder, elbow and rarely near the wrist and the hand [2,3]. We report a case of Juxta articular myxoma of the second interdigital space of the left hand, managed via complete surgical excision.

Case Presentation

A 42-year-old, left-handed man with no medical history, was referred to the department of orthopedic surgery in Rabat with a soft and painless mass of the second interdigital space of the left hand that had been growing over 12 months with no restriction of finger movement (Figure 1).

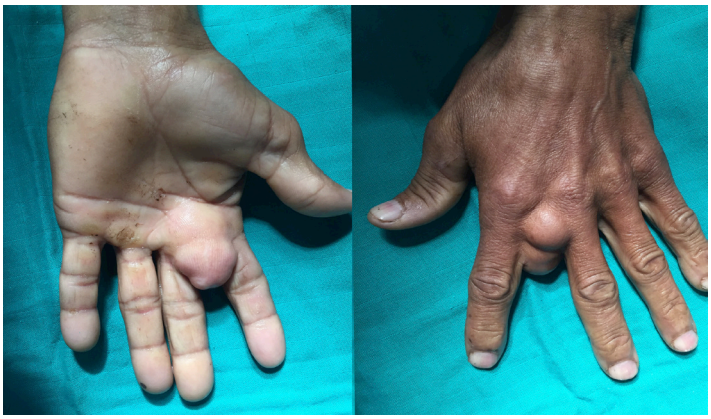

Figure 1: Clinical aspect of the mass in the second interdigital space of the left hand.

The patient had no history of joint trauma or osteoarthritis. Hand radiography showed a soft-tissue mass shadow without any apparent calcification or osteoarthritis (Figure 2).

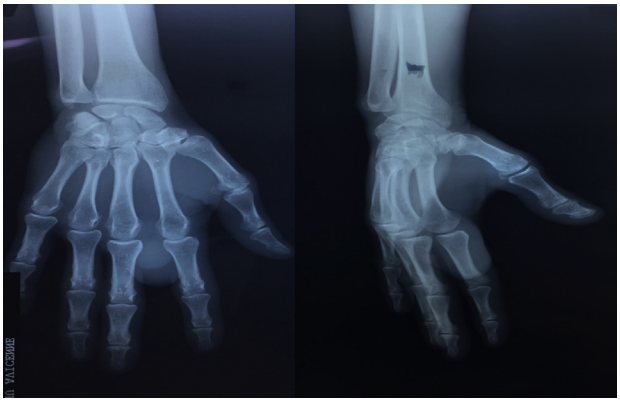

Figure 2: Hand radiography showing a soft-tissue mass shadow without any apparent calcification or osteoarthritis.

Magnetic resonance imaging showed a well-defined, encapsulated tumor measuring 52x29 mm, with a myxoid component, T1 hypointense and T2 hyperintense without invasion of surrounding tissues. A biopsy was performed, and the histological diagnosis was a juxta articular myxoma. A surgical excision was made using Bruner incision. We found a soft yellow-tan mass, myxoid, homogeneous and well limited (Figure 3).

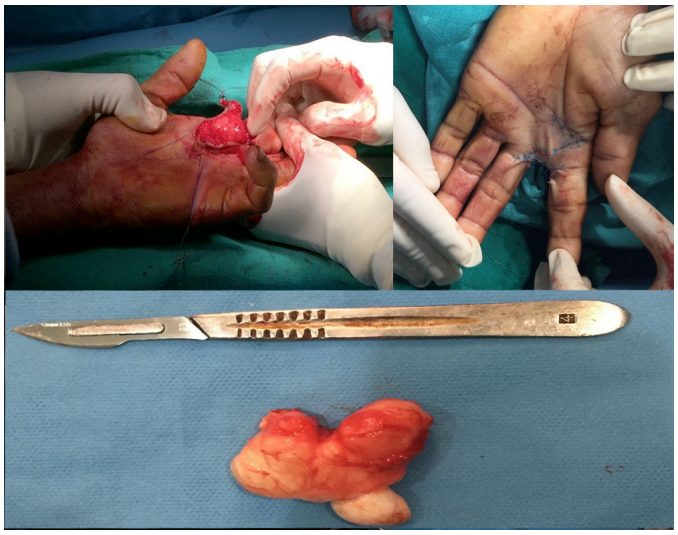

Figure 3: Intraoperative image showing the surgical excision using Bruner incision and the soft yellow-tan tumor.

It was easily separated from the neurovascular structures with respect of the flexor digitorum profundus and flexor digitorum superficialis tendons of the second and third finger. Histopathological analysis of the mass confirmed the juxta articular myxoma. The patient had no postoperative complications and there has been no sign of recurrence after four months.

Discussion

The term myxoma was first used in 1863 by Virchow to describe tumors that mirrored the structure of the umbilical cord and did not exhibit any other kind of differentiation [4]. After 85 years, Soot defined myxoma as a true neoplasm, a tumor of primitive mesenchyme, composed of stellate cells set in a loose myxoid stroma through which course very delicate reticulin fibers [5]. More than 60 different myxoid lesions have been described

There are 5 entities commonly accepted as mainstream myxomas of soft tissues: Intramuscular myxoma, Juxta-articular myxoma, cutaneous myxoma (superficial angiomyxoma), Aggressive angiomyxoma and myxoma of nerve sheath. JAM is commonly associated with joint trauma and osteoarthritis [2,3,12]. Our patient had no history of joint trauma or osteoarthritis. It has been reported around the shoulder [1,2], elbow [2,16], knee [2,12,13,17] and rarely in the wrist [6,10,18], hand [14,15], hip [2,11], ankle [2] and foot [12]. We report the third case in the hand. The other cases reported in the literature are noted in table 1.

	Meis, et Enzinger [2]	Daluiski, et al. [15]	Sciot, et al. [14]	Echols, et al. [1]	Allen [13]	Okamoto, et al. [12]	Minkoff, et al. [11]	Ozcanli, et al. [10]	Abkari, et al. [9]	Sandhu, et al. [8]	Van den Heever [7]	Irving [6]	
Shoulder	3			1									4
Elbow	3		1										4
Wrist								1	1		1		3
Hand										1		1	2
Hip	1				1								2
Knee	57	1				4	1						63
Ankle	1												1

Foot						1							1
	65	1	1	1	1	5	1	1	1	1	1	1	80

Table 1: The cases of juxta articular myxoma reported in the literature.

Ages have ranged from 5 to 83 years with a male predominance [2,16]. The presentation of JAM is a mass or swelling which may be painful, with a size of lesions ranged from 0.6 to 12 cm and a duration of symptoms highly variable from 1 week to 18 years [2,11]. Magnetic resonance imaging showed a mass that appears T1 hypointense and T2 hyperintense. Heterogeneous enhancement can also be observed after intravenous gadolinium injection [8,7]. Microscopically, JAM is characterized by a richly myxoid matrix, a small number of spindle-shaped to plump fibroblast type cells and a poorly developed hypovascular patter. Large areas are histologically identical to intramuscular myxoma but varying sizes of cysts in various stages of development are seen in 89%, higher than in intramuscular myxoma [2,11]. The main differential diagnoses are intramuscular myxoma, myxoid malignant fibrous histiocytoma, low-grade fibromyxoid sarcoma and myxoid-liposarcoma [11]. The treatment is a conservative surgical excision who has to be complete because it has been suggested that incomplete resection is responsible for a high recurrence rate (34 % within 18 months) [2,14,18].

Conclusion

Juxta articular myxoma are rare tumors. The localization in the hand remains exceptional. Histological evaluation is the key to the diagnosis and surgical treatment must be complete to avoid recurrence.

References

1. Echols PG, Omer GE Jr, Crawford MK (2000) Juxta-articular myxoma of the shoulder presenting as a cyst of the acromioclavicular joint: a case report. J Shoulder Elbow Surg 9: 157-159.
2. Meis JM and Enzinger FM (1992) Juxta-articular myxoma: a clinical and pathologic study of 65 cases. Hum Pathol 23: 639-646.
3. Weiss SW and Goldblum JR (2001) Benign soft tissue tumors and pseudotumors of miscellaneous type. In: Weiss SW, Goldblum JR, editors. Enzinger and Weiss's soft tissue tumors. 4th ed., St. Louis: Mosby 2001: 1419-1491.
4. Dutz W and Stout AP (1961) The myxoma in childhood. Cancer 14: 629-635.
5. Stout AP (1948) Myxoma, the tumor of primitive mesenchyme. Ann Surg 127: 706-719.
6. Van den Heever A (2014) Juxta articular myxoma of the wrist. S Afr J Rad 18.
7. Soler R, Rodriguez E, Bargiela A, Dariba M (1998) Lipoma arborescens of the knee: MR characteristics in 13 joints. J Comput Assist Tomogr 22: 605-609.
8. King DG, Saifuddin A, Preston HV, Hardy CJ, Reeves BF (1995) Magnetic resonance imaging of juxta-articular myxoma. Skeletal Radiol 24: 145-147.
9. Korver RJ, Theunissen PH, Van der Kreeke WT, Van der Linde MJ, Heyligers IC (2010) Juxta-articular myxoma of the knee in a 5-year old boy: a case report and review of the literature. Eur Radiol 20: 764-768.
10. Abkaria I, El Hassiba J, Latifia M, Hazmirib FE, Belaabidiab B (2010) Juxta articular myxoma of the wrist: a case report. Chir Main 29: 277-279.
11. Allen PW (2000) Myxoma is not a single entity: a review of the concept of myxoma. Ann Diagn Pathol 4: 99-123
12. Okamoto S, Hisaoka M, Meis-Kindblom JM, Kindblom L-G, Hashimoto H (2000) Juxta-articular myxoma and intramuscular myxoma are two distinct entities. Activating Ds_mutation at Arg 201 codon does not occur in juxta-articular myxoma. Virchows Arch 440: 12-15.
13. Daluiski A, Seeger LL, Doberneck SA, Finerman GA, Eckardt JJ (1995) A case of juxta-articular myxoma of the knee. Skeletal Radiol 24: 389-391.
14. Irving A, Gwynne-Jones D, Osipov V, Nicholson M (2012) Juxta-articular myxoma of the palm. J Surg Case Rep 6: 12-12.
15. Sandhu SS, Elston JB, Harrington MA, Payne WG (2016) Juxta-articular Myxoma of the Hand. Eplasty 16: ic41.
16. Sciot R, Dal Cin P, Samson I, Van den Berghe H, Van Damme B (1999) Clonal chromosomal changes in juxta-articular myxoma. Virchows Arch 434: 177-180.
17. Minkoff J, Stecker S, Irizarry J, Whiteman M, Woodhouse S (2003) Juxta- articular myxoma: a rare cause of painful restricted motion of the knee. Arthroscopy 19: 6-13.
18. Ozcanli H, Ozenci AM, Gurer EI, Tuzuner S (2005) Juxta-articular myxoma of the wrist: a case report. J Hand Surg Am 30: 165-167.