

Case Report**Rare Localization of a Giant Cell Tumor of the Synovial Sheaths of the Hand: Thenar Lodge with Compression of the Median Nerve**

Badaoui Reda^{1*}, Valedemir Ravid¹, Boussaidan Mohamed², Mekaoui Jalal², Boukhriss Jalal³, Chafry Bouchaib³, Benchaba Driss³, Boussouga Mostapha³

¹Resident in Orthopedic Surgery and Traumatology, Department of Orthopedic Surgery and Traumatology 2, Military Hospital Mohammed V (HMIMV), Faculty of Medicine and Pharmacy, University Mohammed V, BP 10100 Rabat, Morocco

²Specialist in Orthopedic Surgery and Traumatology, Department of Orthopedic Surgery and Traumatology 2, Military Hospital Mohammed V (HMIMV), Faculty of Medicine and Pharmacy, University Mohammed V, BP 10100 Rabat

³Professor in Orthopedic Surgery and Traumatology, Department of Orthopedic Surgery and Traumatology 2, Military Hospital Mohammed V (HMIMV), Faculty of Medicine and Pharmacy, University Mohammed V BP 10100 Rabat, Morocco

Corresponding Author: Badaoui Reda, E-mail: joudbadaoui17@gmail.com

ARTICLE INFO*Article history*

Received: February 15, 2020

Accepted: June 14, 2020

Published: July 31, 2020

Volume: 8 Issue: 3

Conflicts of interest: None

Funding: None

Key words:

Giant Cell Tumor,
Thenar Lodge,
Median Nerve

ABSTRACT

The synovial sheath cell tumor (TCGGS) represents the localized form of hemo pigmented villonodular synovitis, which remains a rare tumor in our practice. It occurs mainly in young adults with a predominance of women. It mainly affects the fingers of the hand, its location at the level of the thenar compartment is very rare. Clinically, it has a local expression, which can be summarized as a swelling characterized by slow growth and which may be accompanied by signs of compression at a late stage. An anatomo-pathological examination remains the key element in diagnosis and prognosis. Treatment is based on surgery with complete tumor removal. We report the case of TCGGS of the thenar compartment with compression of the median nerve.

INTRODUCTION

TCGGS is frequent in the hand, second in order of frequency after the arthrosynovial cyst. It is a benign tumor, but with a tendency for local spread to the point that it has been called by some authors "synovial sheath sarcoma". The treatment, which is based on a complete surgical excision, is made difficult by the diffuse invasion of the noble neighboring structures. They often involve the fingers in their palmar face, typically unique, but of variable size depending on the time taken to consult the patient. We report the case of a very rare localization with a typical picture of carpal tunnel syndrome.

PATIENT AND OBSERVATION

51-year-old patient, with no particular pathological history, presenting for one year a swelling at the level of the thenar compartment of the left hand, gradually increasing

in volume, asymptomatic at the beginning then the evolution is marked by the appearance of sensory disturbances in the territory of the median nerve, such as tingling and paraesthesia. The examination objectified a mass of multi-lobed contours, 3 cm long, of firm consistency, infiltrated, adherent to the deep plane, without inflammatory signs in sight. The standard hand x-ray was normal. Ultrasound of the soft parts showed a nodular formation of hypoechoic echostructure, well limited, of macrolobulated contours (Figure 1). The paraclinical assessment was supplemented by MRI which revealed a lesional process in hyposignal T1, hypersignal T2, of poly-lobed contours, presenting an intimate contact with the flexor tendons which it drives back (Figure 2). The patient underwent an exegesis biopsy of the tumor (Figure 3), macroscopically it was an encapsulated mass, polylobed and of brownish yellow color (Figure 4). A histological study made it possible to retain the diagnosis of tenosynovial tumor with giant cells in its nodular form.

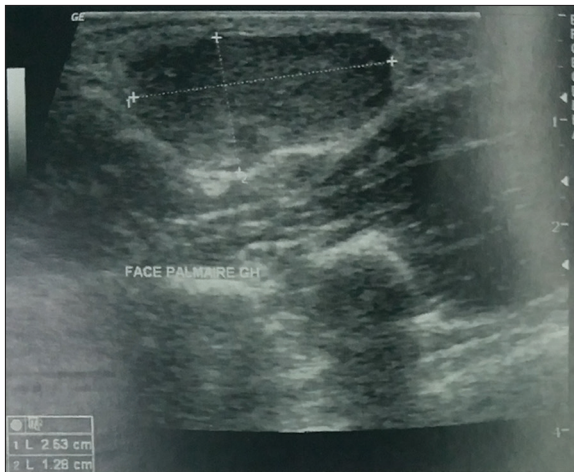


Figure 1. Ultrasound of the hand showing a nodular, hypoechoic formation, well limited and of macrolobulated



Figure 2. MRI of the hand showing a T2 hypersignal lesion process, of multi-lobed contours, in intimate contact with the flexor tendons



Figure 3. Intraoperative clinical image showing the skin incision



Figure 4. Clinical image of the tumor after excision showing an encapsulated, multi-lobed mass of brownish yellow color

Anglo-Saxon literature. Its numerous names mean that this tumor sometimes remains ill-defined. It was Chassaignac [1] who first described it in 1852 with this name: “malignant tumor of the tendon sheaths”. All tendon synovials can be affected with a predilection for the hand and the foot. For Posch and Weber [2], they represent 10% of hand tumors and for Boyes [3] 15%. Like most soft tissue tumors, the etiology of TCGGS in the hand remains unknown.

TCGGS is a tumor in young adults, usually between 30 and 50 years old, with a maximum between 40 and 50 years old, but children can also be affected. Female involvement is slightly dominant in large series [4]. As a rule, these tumors occur along the palmar surface of the fingers [5] and are most often next to the distal interphalangeal joint (IPD) [6-7]. Localization at the level of the thenar compartment is rare, very few cases are described in the literature, like the case described by Mizushima et al [8].

Clinically, TCGGS presents as a painless mass slowly growing on the palmar surface. The differential diagnosis is often made with granulomas with a foreign body, fibroids of the tendon sheaths, fibrous tumors, lipoma or a desmoid tumor.

For paraclinical exploration, no biological element is specific. The standard radiography allows to see cortical erosions by tumor hyperpressure in 10% to 15%. Ultrasound confirms the tissue nature of the tumor without prejudging its etiology. It also makes it possible to search for satellite lesions and to study the relationships of the tumor with neighboring structures [9]. On MRI, the tumor has discreetly well-defined boundaries developed in contact with a synovial sheath. It appears in hyposignal in sequence balanced in T1 and in hypersignal in sequence balanced in T2, it is raised in a diffuse way after injection of gadolinium. Histologically, TCCGS corresponds to a proliferation of giant multinucleated cells, and histiocytes associated with foamy macrophages, and hemosiderin deposits.

The treatment of TCGGS is surgical by excision. This excision must be meticulous and complete in order to prevent tumor recurrence. The difficulties in carrying out a complete excision are related to the tumor volume, itself

DISCUSSION

The term localized hemopigmented villonodular synovitis is currently the most used to speak of these tumors in the

related to the delay in the consultation, because the tumors are painless and very little annoying on the functional level. The evolution is mainly dominated by recurrences which vary according to the series from 0 to 26% [10]. Radiotherapy is an adjuvant treatment recommended to prevent them.

CONCLUSION

TCGGS of the thenar compartment is rare, diagnostic delays are often lengthened due to its pauci-symptomatology character. It is a benign soft tissue tumor but with local malignancy like giant bone cell tumors. Their management calls for surgery which remains difficult and which must be well planned and correctly performed to avoid recurrences.

ACKNOWLEDGEMENT

We want to acknowledge Madame SABRA BEZZANIN for her helpful revision of the English language.

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