Case report
A Case report and review of literature of a giant lipoma of the hand

ABSTRACT

Lipomas are very common benign tumors which are preferentially located in the neck and trunk, however other locations which are rare but can exist such as the hand and its commissures .

We report one case of a massif lipoma of the first commissural that progressed for 10 years of a 61 year-old woman.

In spite of the size of the tumor and its extensions to others interosseous spaces no nerve compression sign was reported by the patient.

We signal the interest of MRI that allow us to define limits of the mass and to ease the surgical treatment.

The mass was resected in a bloc without any lesions of vessels, nerves or tendons.

Post operative period was uneventful. And the patient had excellent hand and fingers function after a few days of gentle mobilization exercises .

Keywords: Lipoma , Hand , Commissure , surgery , MRI

1. INTRODUCTION

Lipoma is a benign tumor of mesenchymal origin composed of fat cells.

They are very common, since they represent almost 50% of all soft tissue tumors. Superficial lipomas are most often located on the back, shoulders, neck and abdomen, followed by the arms and thighs.

Other locations are unusual but we can find them like the hand and its commissures which only represent 1 to 3.8% of its benign tumors.

We report a case of massive dorsopalmar thenar lipoma invading the entire palm of the hand without clinical signs of neurovascular compression.

2. CASE PRESENTATION

We report the case of A 61-year-old patient who has had large asymptomatic swelling of the thenar space for more than 10 years.

The clinical examination showed a subcutaneous tumor measuring approximately 7 cm in length x 8 cm in width, thus spreading the 1st commissure and making opposition of the thumb very limited or even impossible. (Fig. 1)

This mass of soft consistency, without inflammatory signs and not painful, appears poorly limited, giving tumor extensions of smaller sizes to the palm of the hand next to the 3rd and 4th interosseous spaces.
The patient reports no sensory deficit and the Local neurological examination is normal. X-ray shows the appearance of a tissue image without bone lesions (Fig 2)
The MRI highlights a voluminous tissue formation in T1, T2 hypersignal, well limited, it is developed in the subcutaneous fat of the 1st corner, insinuates itself in front of the last three metacarpals and encompasses the deep and superficial flexor tendons. (Fig 3)
The surgical intervention was carried out under locoregional anesthesia, and under a pneumatic tourniquet at the root of the limb, the approach provided satisfactory exposure over the entire palm of the hand and made it possible to highlight a lipomatous mass. , encapsulated, repressing the vascular-nervous pedicles of the long fingers without invading them and remaining in front of the flexor tendons.(Fig 4)
The tumor was carefully dissected, which made it possible to remove it all (Fig 5) without damaging the noble elements
Complete recovery was achieved after 06 months without any sign of recurrence.(Fig 6)

3. DISCUSSION

Lipomas are benign tutors that are commonly located in the limbs (11.5% to 27% in the upper limbs), its localization in the hand is rare, occurring in 5% of cases [1] .

A lipoma of the fingers or the dorsal aspect of the hand presents as a soft, sometimes lobulated lesion that typically does not affect function [2] .

Palmary lipomas, which are more common, can be either superficial and subcutaneous or deep, beneath the aponeurosis, forming a voluminous, arborizing mass that insinuates between the septa of the hand. They rarely cause signs of nerve compression.

Depending on its location, a palmary lipoma can cause compression of the interosseous nerve in the forearm, carpal tunnel syndrome [3], compression of the ulnar nerve in Guyon's canal [5,6], or compression of digital nerves [7], and may even compress the intrinsic muscles of the hand, leading to trigger fingers [8].

In our case, despite the size of the tumor and the mass effect it could have on the various neurovascular pedicles of the hand, no signs of nerve compression were noted.

X-rays may rarely show bone erosion at the site of contact with the lipoma. MRI is very useful for completing the preoperative assessment in cases of diagnostic uncertainty. Due to its high sensitivity, MRI can reveal a lobulated mass with septa, showing hyperintensity on T1-weighted images and isointensity on T2-weighted sequences. It also helps assess the dimensions, relationships, and boundaries of the mass and guides us in determining whether the tumor is benign or malignant.

Surgical treatment of an asymptomatic lipoma is not necessarily imperative if the diagnosis is not regularly made during preoperative assessment. However, only histological examination can rule out a liposarcoma, which remains exceptionally rare before age 40 and should be considered in the presence of rapid tumor growth and neurological signs, as well as other more common benign tumors of the hand, such as synovial cysts or giant cell tumors.

Recurrence is rare and usually results from incomplete initial excision.

4. CONCLUSION

Lipomas of the hand are rare benign tumor pathologies. Due to their proximity to vascular and nerve structures, extreme caution should be exercised during surgical dissection.
MRI is the most useful exploration, both diagnostically and with a significant impact on treatment.
Only histopathological examinations can confirm the histological nature of the lesion.

CONSENT

As per international standards or university standards, patient(s) written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

I declare on my honor that the ethical approval has been exempted by my establishment.

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Fig. 1. intraoperative aspect

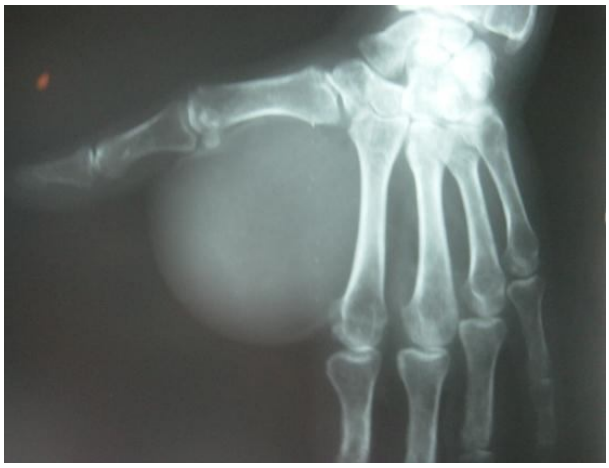

Fig. 2. X-ray : round opacity of the first commissure without bone defect

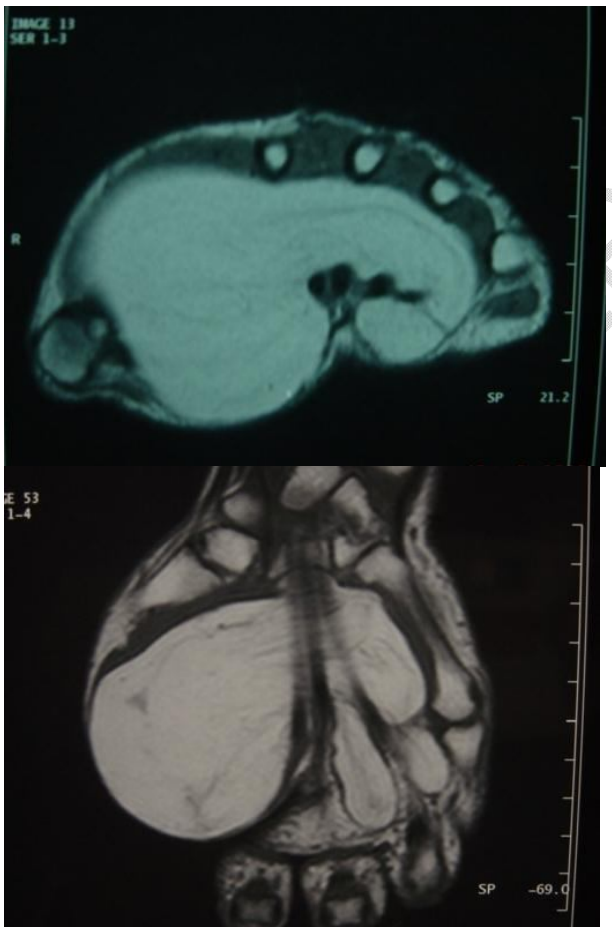

Fig. 3. MRI : typical appearance of a lipoma extending to the entire palm of the hand

Fig 4 : Intraoperative aspect showing the giant mass and its extensions to the palm

Fig 5 : surgical piece all removed

Fig 6 : post operative result