

Hand lipoma: About 3 cases

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Abstract

Lipomas are very rarely localized in the hand and are even More rare in the fingers. We present three cases of hand lipomas of different localizations at three patients, with no particular pathological history, two lipomas of the palmar surface of the hand, and a lipoma of the anatomical snuffbox, and we are trying to develop its different clinical, para-clinical and therapeutic modalities for this pathological entity.

Keywords: lipoma, hand, nerve compression; excision

Introduction

Lipoma is a benign tumor that develops from abundant adipose tissue [1].

It constitutes only 1 to 3.8% of benign tumors of the hand and fingers [2], with different locations in the hand. We illustrate here three cases of lipomas, with two lipomas at the palmar level including a giant, and a third at the level of the anatomical snuff box.

Observations

Case 1: This 60-year-old patient, who has for more than 2 years a swelling of the palm of the left hand without sensory deficit. The clinical examination showed a subcutaneous tumour measuring about 4 cm long and 3 cm wide (Figure 1), of soft consistency, without inflammatory and not painful signs, very limited, located at the 2nd the second inter bony space.



Fig 1: Clinical image of lipoma.

The standard radio is without particularity. The MRI shows a left palmar lipoma of the posterior side of the 2nd and 3rd spaces in contact with the flexor tendons which it remains separated by a border (figure 2).



Fig 2: MRI of the hand showing lipoma of the posterior side of the 2nd and 3rd space Metacarpophalagian.

Under locoregional anaesthesia, with a tourniquet at the root of the limb, this mass was carefully excised, lipomatous, supra-aponevrotic without contact with tendons or vascular-

nervous elements (figure3).The anatomo-pathological study concluded lipoma without any signs of malignancies.



Fig 3: The peroperative appearance of lipoma after dissection and excision.

Case 2: It is a patient aged 40 years, consulted for paresthesias in the right thumb present for 2 years. The clinical examination found a very limited swelling, of soft consistency, non-inflammatory of the anatomical snuffbox, with paresthesias on the dorsal face of the thumb. The Allen test was normal, indicating a good permeability of the radial artery. Standard radiography did not reveal any pathological images. The electromyogram (EMG) objectified at the right thumb, a prolonged sensitive latency in the radial nerve distribution territory.

The ultrasound of the hand found an echogenic mass of the

anatomical snuffbox, without vascular character, with a radial artery permeable to Doppler. A biopsy-resection was performed under locoregional anaesthesia by a lateral approach centered on the tumor, allowed us to highlight a mass of lipomatous appearance occupying the anatomical snuffbox, with close contact with the lateral branch of the sensitive branch of the radial nerve. The radial artery and tendons were intact and did not relate to the tumor. The encapsulated tumor was carefully dissected from the adhering nerve branch and repressed without being invaded by the mass (Figure 4).



Fig 4: Macroscopic image of the lipoma of the anatomical snuffbox.

The histological study confirmed the diagnosis of lipoma. The evolution was marked by the resolution of sensory disorders, without recurrence in the long term.

Case 3: A 71-year-old patient, who has had for more than 10 years a voluminous swelling of the asymptomatic left thenar region.

The clinical examination showed a subcutaneous tumour measuring about 6 cm long and 4 cm wide of soft consistency, without inflammatory and not painful signs, seems poorly limited, located in the 3rd and 4th interbony spaces. The patient reported no sensory deficits and the local neurological examination was normal, (Figure 5)



Fig 5: clinical image showing lipoma of thenar region

The ultrasound shows a lipoma of the hand measuring 64/44 mm not vascularized with Doppler, without abnormalities of the tendons.

This mass was excised under locoregional anesthesia, it was

encapsulated repressing the vasculo-nervous pedicles of the long fingers without invading them and remaining ahead of the flexor tendons (Figure 6), with an anatomy-pathological study that confirmed the diagnosis of lipoma.



Fig 6: The peroperative appearance of the giant lipoma of the thenarian region.

Discussion

Lipomas are benign tumours of extra-neural origin and account for about 16% of mesenchymal tumours [3]. They constitute a common pathology but infrequent at the level of the hand and are extremely rare at the level of the fingers with a usual evolution of slow growth, which can stabilize spontaneously [4].

Palmar lipoma is the most common, its localization can be in superficial subcutaneous as our first case, or deep under aponeurotic clinically realizing a voluminous mass, soft, regular and painless, with an encapsulated appearance, polylobed housing the deep palmar space realizing a giant lipoma (our 3rd clinical case).

Some locations may cause interbony nerve compression in the forearm [5], carpal tunnel syndrome [6], ulnar nerve compression in the Guyon canal [7, 8], or digital nerves [9], or even a compression of the intrinsic muscles of the hand causing fingers to appear [10]. The localization at the level of the anatomical snuffbox remains unusual and exceptional, such as the case of our patient (second clinical case) where the tumor was adhered to the external branch of the sensitive branch of the radial nerve.

Signs of nerve compression are not correlated with tumour size in forms with intra-nervous development, unlike extra-nerve forms for which volume certainly has a role. Radiological scans help guide the diagnosis, ultrasound and MRI, which allow to suspect the benignity of the lesion and analyze its relationship with the vasculo-nervous axes.

The differential diagnosis arises with other soft tissue

tumors, mainly liposarcoma [11], which remains the most dangerous differential diagnosis, and exceptional before age 40 characterized by rapid growth of the tumor and neurological signs. Marginal exeresis is the treatment of choice for benign lipomas. The dissection must be careful and complete not to damage the vasculonervous elements and avoid recurrences.

Conclusion

Lipomas of the hand are rare pathologies, their peculiarities are due to the often intimate relationships with the vasculo-nervous elements require a careful dissection, the MRI remains the reference examination for the diagnosis, and histology after complete removal of the tumor remains imperative to confirm the diagnosis and eliminate a malignant tumor especially liposarcoma.

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