Carpal Tunnel Lipoma: A Rare Case Report
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Abstract
Palmar compressive lipoma of the median nerve is relatively rare. It is often expressed as a tumor syndrome compressing the flexor tendons and compressing the median nerve. We present the case of a patient who initially consulted for a carpal tunnel syndrome associated with a mass in the wrist that progressively increased in size. We discuss the unusual character of the localization, the interest and the difficulty of an excision of this type of lesion.

Keywords: median nerve, lipoma, carpal tunnel, surgery.

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INTRODUCTION
Lipoma are very rarely localized in the hand. The localization in the carpal tunnel remains exceptional. Its diagnosis is often easy, but may require further exploration.

We report in this case a compressive form of the median nerve, not invading the tendon structures of the right hand.

MATERIALS AND METHODS
A case of palmar lipoma of the right hand is reported in a 55-year-old woman who consulted us for paresthesias in the right hand with difficulty in grasping, which had been evolving for one year, with no intrinsic or extrinsic motor deficits. The clinical examination revealed a swelling well limited to the anterior aspect of the wrist, mobile, soft and painless. There was no cutaneous pain in the area. The vascular examination of the fingers was without abnormality.

The standard radiograph did not reveal any pathological image. An ultrasound was performed, orienting the diagnosis to a lipoma of the wrist, well limited, non vascularized on Doppler. An EMG of the left upper extremity was in favor of a sensitive compression of the left median nerve from its passage to the left wrist.

Intraoperatively, the median nerve was found to be compressed by a yellow mass that fused into the carpal tunnel. The encapsulated tumor was carefully dissected from the median nerve, which was pushed back without being invaded by the mass. The size of the tumor after monobloc excision was 5 cm in diameter, well limited, non vascularized, and a priori without signs of malignancy.

The anatomical pathology result confirmed the diagnosis of lipoma. The evolution was marked by the resolution of sensory disorders. At 12 months, there was no recurrence of the tumor and the function of the hand was excellent, with disappearance of the nervous disorders of the carpal tunnel syndrome.

DISCUSSION
Benign tumor pathologies of the hand are frequent and mainly represented by arthrosynovial and paratendinous cysts. Other etiologies are rarer: among these, lipomas constitute only 1 to 3.8% [1,2] of benign tumors of the hand.

Lipoma is a tumor developed from mature adipocyte cells. Most often encapsulated and sometimes infiltrating, it sometimes poses difficult problems of differentiation from adipose hyperplasia. Localization in the hand and wrist remains rare - 5% of cases [2].

Depending on its location, the lipoma may induce nerve compression, carpal tunnel syndrome, compression of the ulnar nerve in Guyon's canal [3], digital nerves [4], or even a jerking finger [5].

Clinically, it is often painless and usually results in the palpation of a soft, regular and mobile
tumor. In the wrist, the appearance of signs of vasculo-
nervous compression leads the patient to seek medical 
attention [6-8].

Ultrasound can sometimes be used to evoke 
the diagnosis by finding an echogenic mass on the 
anteior aspect of the wrist, without vascular character. 
Electromyography (EMG) and nerve conduction 
measurements show prolonged sensory latency in the 
median nerve territory of the wrist [9].

The gold standard for these tumors is MRI, 
which is the most interesting diagnostic tool and allows 
therapeutic planning. It shows a lobulated mass, 
including septa with a TI hypersignal and a T2-
weighted iso signal [10]. Pathological examination 
remains the only means of diagnostic affirmation.

In the wrist, marginal excision is the treatment 
of choice for benign lipomas. Dissection and 
identification of vasculo-nervous elements must be 
done with care to avoid iatrogenic lesions. Local 
recurrences are exceptional. Histology should eliminate 
the diagnosis of well-differentiated liposarcoma, which 
is the main differential diagnosis [11].

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Fig-1: Intraoperative image of the lipoma measuring 
5 cm in long axis

Fig-2: Intraoperative image of the median nerve 
under the lipoma

Fig-3: Intraoperative image after single-block 
removal of the mass.

REFERENCES


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