

A giant lipoma of the hand as a rare cause of secondary carpal tunnel syndrome



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Background

Carpal tunnel syndrome (CTS) is one of the **most common conditions** that affect the hand. **Increased carpal tunnel pressure** compromises intracarpal blood flow. Consequently, **ischemia in the endoneural capillary system** translates into microvascular changes that evolve **with demyelination and axonal degeneration of the nerve**. Its clinical presentation is characteristic and **secondary causes of this syndrome are rare**. **Tumor compression of the median nerve is very rare**, with less than 3% of carpal tunnel syndrome cases due to masses arising from or around the median nerve.

Case Presentation

A **47-year-old female** presented with signs and symptoms consistent with **carpal tunnel syndrome** associated with a **nodule superficial to the carpal tunnel on the palmar surface of the hand**. She already had an **evolution of a few months**. **Electromyography demonstrated median neuropathy**. **Magnetic resonance imaging (MRI)** of the hand revealed a **well-defined, encapsulated, fat-density lesion** occupying a space of approximately 70 x 25 x 15 mm. She underwent **excisional biopsy of the tumor and section of the transverse carpal ligament**.

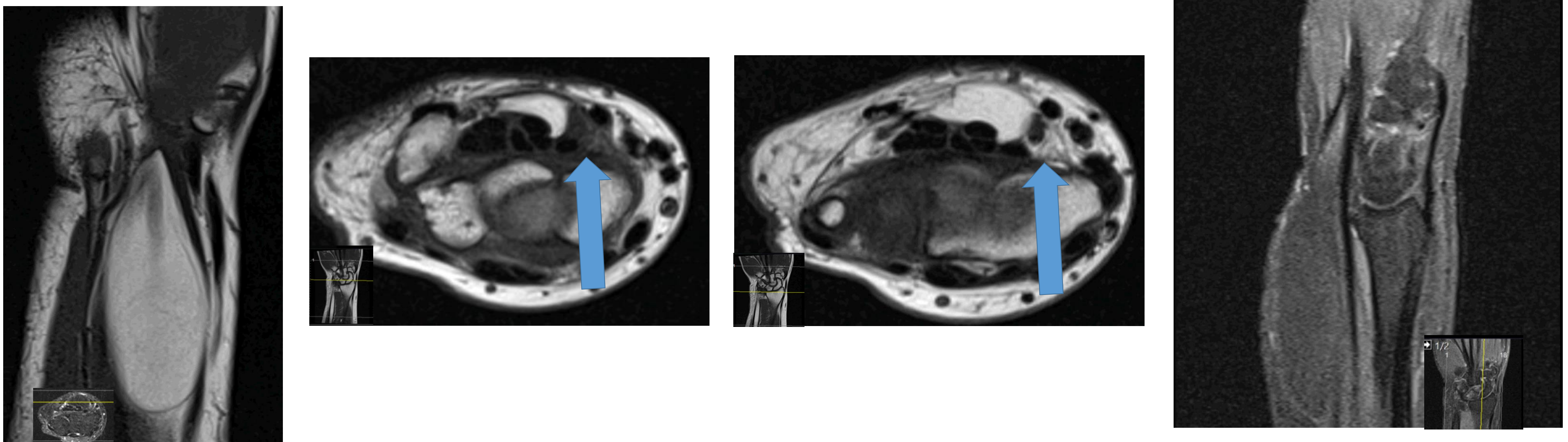


Fig.1 (MRI): Coronal, sagittal and axial views of the wrist. Arrow – median nerve.

Results

After surgery, the patient had complete resolution of symptoms from the time of surgery.

Histopathology confirmed the presence of a lipoma.

Her follow-up was carried out for 6 months, and the patient was satisfied with the procedure. When assessing mobility, she did not have wrist or finger mobility deficits. Kapandji 10. She had complete resolution of numbness and pain.

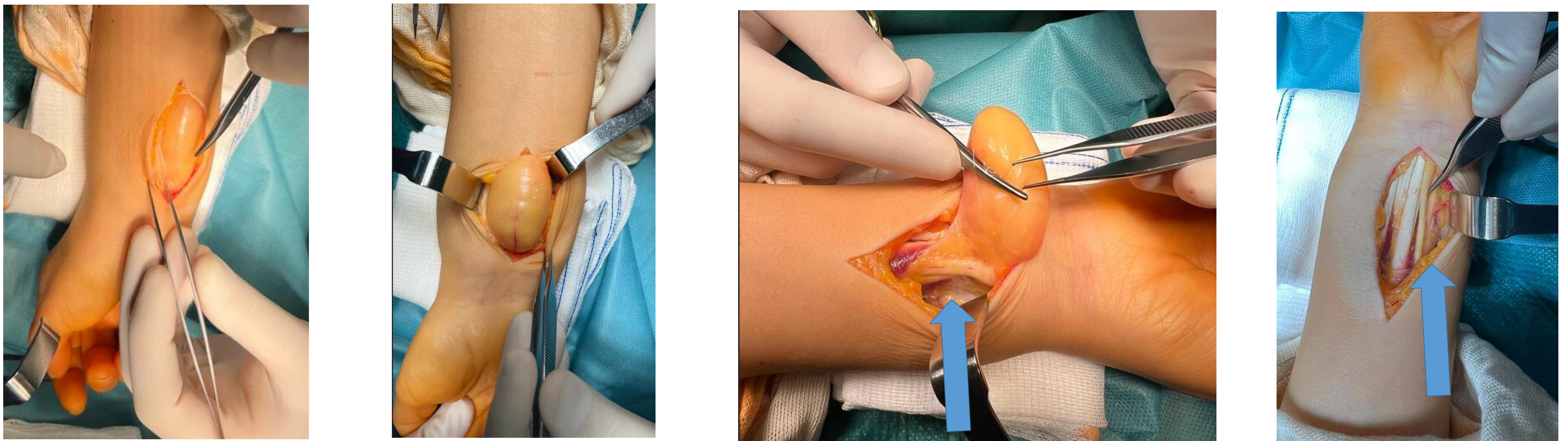


Fig.1 (MRI): Surgical dissection of the lipoma. Arrow – median nerve.

Discussion

Although **rare**, we should include the **uncommon cause of tumors and space-occupying lesions** in the **differential diagnosis of CTS**, **especially** when the **patient's profile is not typical** (young, male, without repetitive strain or manual work). In **addition**, the **presence of a palpable mass** in the distal forearm or in the palm of the hand determines the **need for imaging studies** to determine the extent, location and typology/aggressiveness of the **lesion**. These are the **characteristics** that will determine the **approach and type of procedure**.

Conclusions

Carpal tunnel syndrome is one of the most common reasons why the community resorts to an orthopedic consultation. If most of the time this translates into a uniform presentation and treatment but, occasionally, secondary causes may need to be addressed, like a tumor.