

Things Are Not What They Seem! Median Nerve Lipomatosis Presenting As Subcutaneous Lipoma In A 5 Year Old

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INTRODUCTION:

Lipomatosis of the nerve (LN) is an uncommon disorder of the peripheral nerves characterized by interfascicular fibro-fatty proliferation within the epineurium that leads to massive nerve hypertrophy and consequent symptoms secondary to mass effect¹.

REPORT:

This is a case of a 5 year old child which presented with a left hand progressively growing swelling at the volar aspect of the wrist extending to base of ring finger. This was a one year history and the child was asymptomatic.

An MRI was also done and was reported as thickened fatty tissue at 3rd and 4th metacarpalphalangeal level of the subcutaneous region with 1.0cm thickness which had high intensity at T1 and complete suppression in all fat suppression images. This swelling extends up to proximal interphalangeal joint of radial aspect of index finger up to ulna aspect of little finger. Final diagnosis was still in keeping with a subcutaneous lipoma.

Surgery was performed and the intraoperative findings was not what it seemed. There was a small lipoma over the base of ring finger measuring 1x1cm. There was ballooning of the median nerve from level 2cm proximal to the proximal wrist crease onwards. This was travelling into the carpal tunnel and a carpal tunnel release was done. The hypertrophic median nerve showed hourglass appearance at level of carpal tunnel. The digital nerves of the ring finger also noted to be hypertrophic.

Intraoperative diagnosis was then changed to left median nerve schwannoma. Histopathology image showed adipocytic proliferation associated with fibrous component, infiltrates and expands the epineurial and perineurial

compartments of the nerve which separates nerve fascicles. A final diagnosis of median nerve lipomatosis was then made.

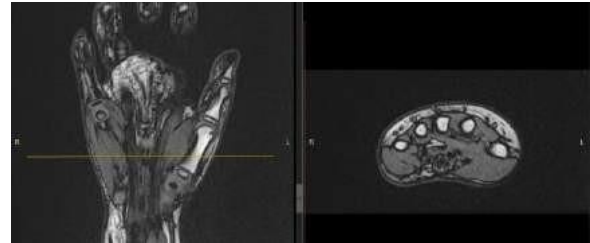


Figure 1: MRI images of the hand



Figure 2: Intraoperative image of the hand

Option of excision was given to the parents but they are undecided yet at the moment and will give the decision to us during the next follow up.

CONCLUSION:

Lipomatosis of the nerve is a rare condition but a high index of suspicion is necessary in children especially in age group less than 10 years old². Both clinical and radiological findings must be examined thoroughly before the surgery in order for a correct diagnosis to be established to reduce patient morbidity and outcome.

REFERENCES:

1. Khaled et al, A Real Mystery- Nerve Lipomatosis Cureus 2019; Pg226.
2. Patrick et al, *PIK3CA* mutations in lipomatosis of nerve with or without nerve territory overgrowth