

AN UNUSUAL
CASE OF
WASTING OF
THE SMALL
MUSCLES OF
THE HAND

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Disclosures

- ◆ Advisory Boards and/or Lecture Fees for:
 - ◆ Allergan / Abbvie
 - ◆ Eli Lilly
 - ◆ Lundbeck
 - ◆ Teva
 - ◆ Novartis

Learning Objectives:

To become aware of some unusual spinal conditions which present with hand wasting

1. **Ventral longitudinal intraspinal fluid collections (VLISFC)**
2. **Hirayama disease**
3. **High cord compression**

Wasting of the hand muscles

- ◇ Most often related to peripheral nerve disorders, such as
 - ◇ Ulnar nerve compression
 - ◇ Peripheral neuropathy
 - ◇ Plexopathy
- ◇ If the pattern does not fit the distribution of a peripheral nerve, nerve root or plexus element, consider anterior horn cell involvement. Especially if there is a gradient of severity across contiguous segmental levels (eg C8>C7>C6)
- ◇ Cause might include:
 - ◇ Degenerative or infective causes: ALS, polio
 - ◇ Obvious structural cord pathology: syrinx
 - ◇ Unusual causes of indirect cord injury associated with “snake eye” appearance on MRI such as those listed in the Learning Objectives slide

Mechanism of amyotrophy

- ◇ The mechanism for hand wasting and the associated “snake eyes” appearance on MRI remains speculative
- ◇ The anterior horn regions are thought to be susceptible to ischaemic injury
- ◇ Mechanical stress involving the spinal cord may be a factor, but the predominant involvement of the lower cervical cord when the major compressive pathology is either above (high cord compression) or below (VLISFC) this region suggests an indirect vascular mechanism
- ◇ Venous congestion resulting in impaired perfusion pressure is a potential explanation

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