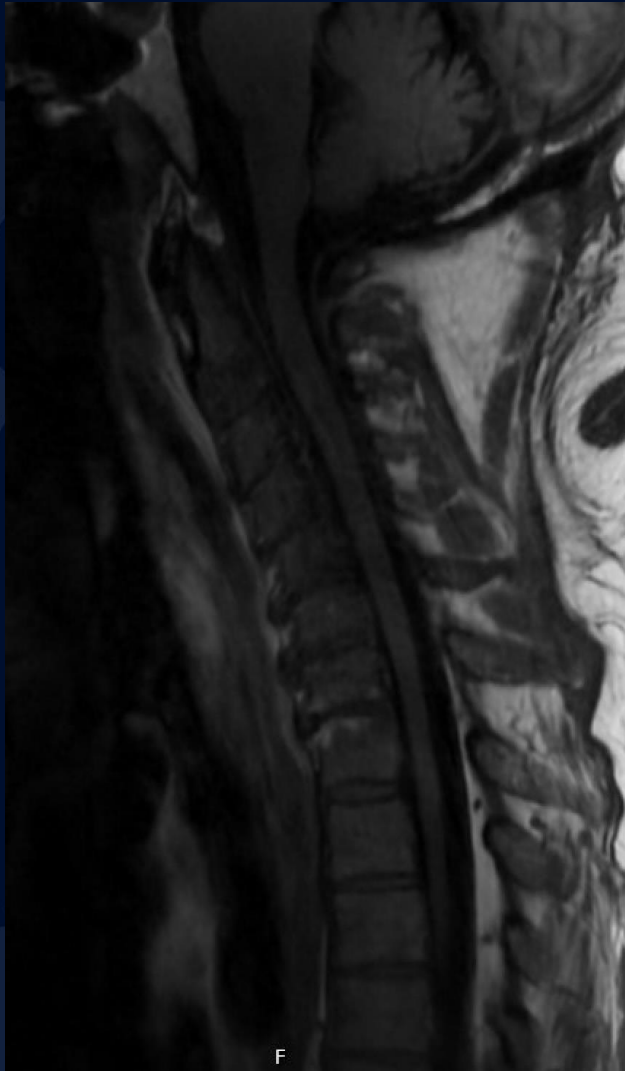


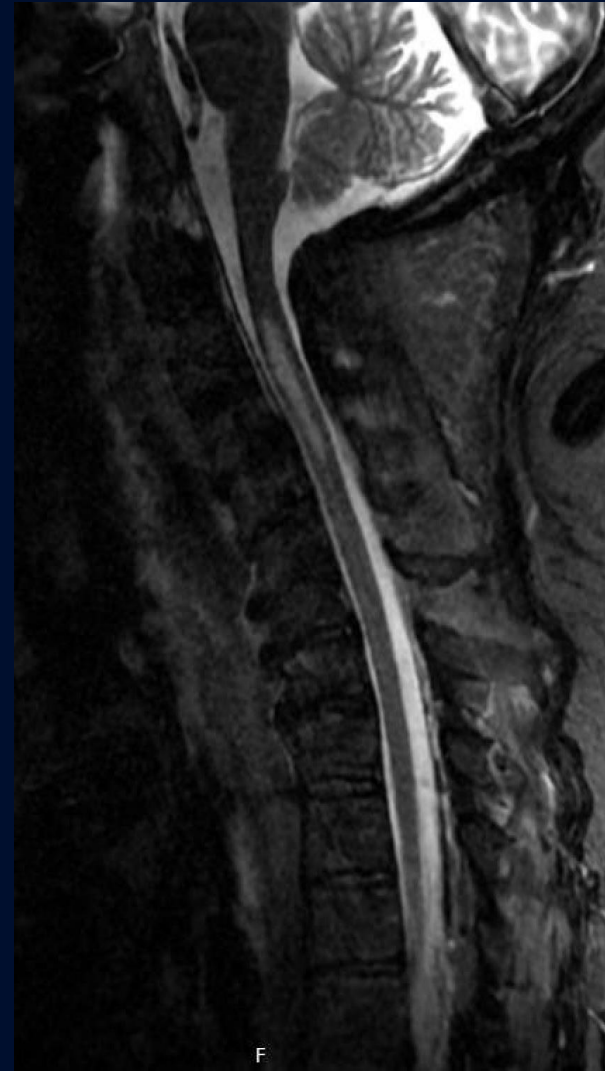
65-year-old male with
generalized weakness, bilateral
hand numbness and lethargy

Mallory Kane, MS III

MR Cervical Spine



T1



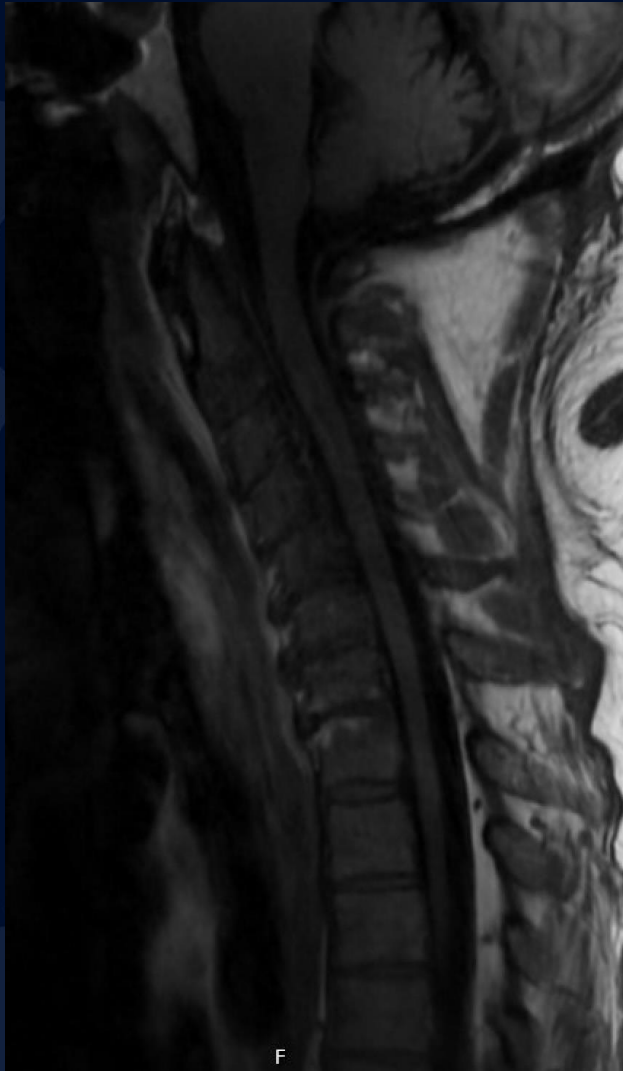
STIR

A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. The leaf has a prominent central vein and several smaller veins branching off it. The leaf's edge is serrated.

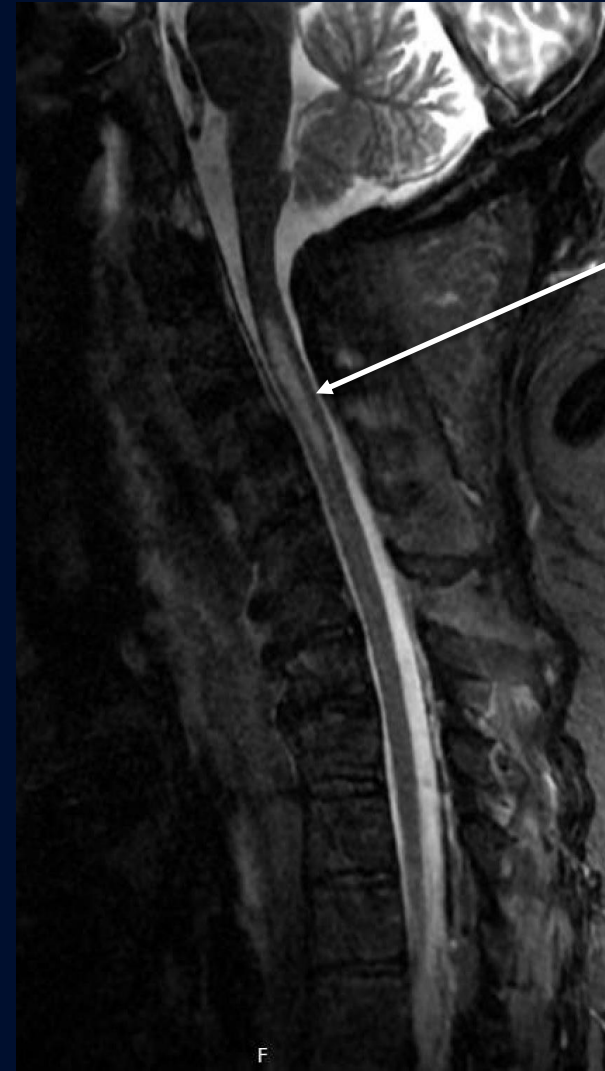
?

Transverse Myelitis

MR Cervical Spine



T1



Intramedullary hyperintensity at the C2-C4 levels

STIR

Transverse Myelitis

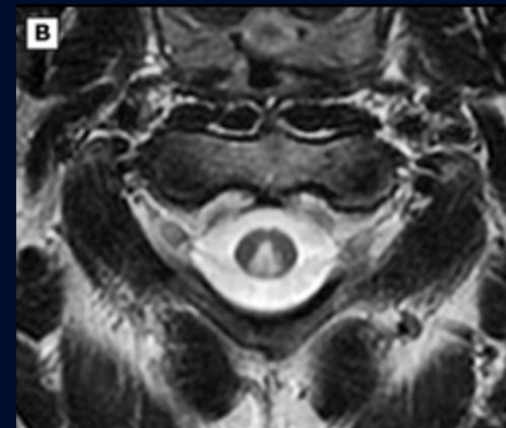
- Rare & acquired focal inflammatory disorder with many possible causes:
 - Idiopathic (most common), postinfectious, systemic inflammation, multifocal CNS disease
- Epidemiology: 1-8 cases / million people / year
- Imaging:
 - CT spine is the fastest test to rule out spinal cord compression, but a normal CT does not rule out **intrinsic** spinal lesions
 - MRI spine with and without contrast is the best test to make the diagnosis
 - Gadolinium enhancing signal abnormality extending over multiple cord segments +/- swelling of the spinal cord at affected levels
- Treatment:
 - High dose IV steroids as soon as possible
 - Plasma exchange if symptoms fail to improve with steroids

Transverse Myelitis

- Diagnostic criteria
 - Development of sensory, motor, or ANS dysfunction attributable to the spinal cord
 - Bilateral symptoms
 - Defined sensory level
 - Exclusion of extra-axial compression
 - CSF pleocytosis **or** elevated CSF IgG index **or** gadolinium enhancement of the spinal cord
 - Symptoms decrease to a minimal point between 4 hours and 21 days of onset
- Imaging:
 - CT spine is the fastest test to rule out spinal cord compression, but a normal CT does not rule out **intrinsic** spinal lesions
 - MRI spine with and without contrast is diagnostic
 - Gadolinium enhancing signal abnormality extending multiple cord segments +/- swelling of the spinal cord at affected levels
- Treatment
 - High dose IV steroids as soon as possible
 - Plasma exchange if symptoms fail to improve with steroids



T2 sagittal



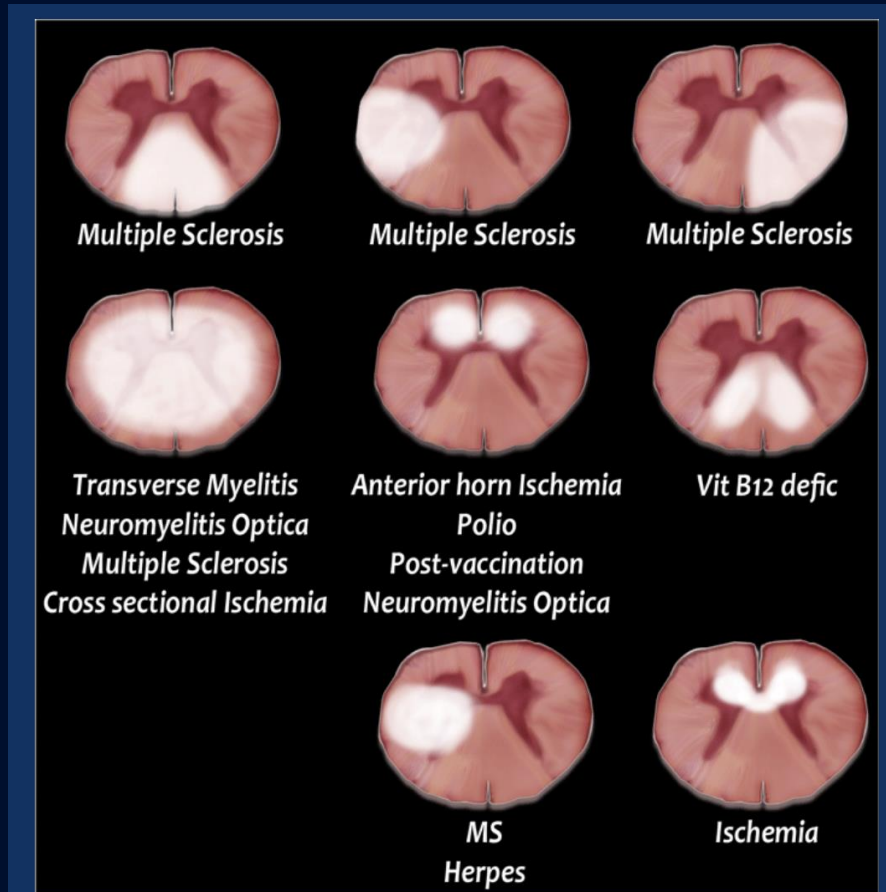
T2 axial

UConn
HEALTH

RADIOLOGY

Differential Diagnosis

- Compressive myelopathy
 - Epidural mass
 - Epidural hematoma
 - Epidural abscess
 - Vertebral body compression fracture
- Vascular myelopathy
 - Anterior spinal artery infarction
 - Central cord syndrome
 - Spinal Dural AV fistula
- Metabolic myelopathy
 - Vitamin B12 deficiency
 - Vitamin E deficiency
 - Copper deficiency
 - Nitrous oxide toxicity
- Radiation myelopathy
- Neuromyelitis optica
- Acute flaccid myelitis
- Neurosyphilis
- Neurosarcoidosis



References

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- Murphy OC, et al. Acute flaccid myelitis: cause, diagnosis, and management. Lancet. 2021 Jan 23;397(10271):334-346. doi: 10.1016/S0140-6736(20)32723-9.
- Simone CG, Emmady PD. Transverse Myelitis. StatPearls. Jan 2023. NIH. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK559302/>
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