

Chronic Inflammatory Demyelinating Polyradiculoneuropathy

- Clinically heterogeneous, grossly symmetric, sensory and motor neuropathy evolving as monophasic, relapsing, or progressive disorder
- Develops over > 8 weeks
- Autoimmune disease involving cellular and humoral immunity
- Hallmarks of CIDP: Enlarged nerves with "onion bulb" formations, demyelination.
- CIDP is usually a **clinical** diagnosis based on presence of progressive weakness/sensory loss and response to corticosteroid therapy.
- Adult > childhood

Chronic Inflammatory Demyelinating Polyradiculoneuropathy (CIDP)

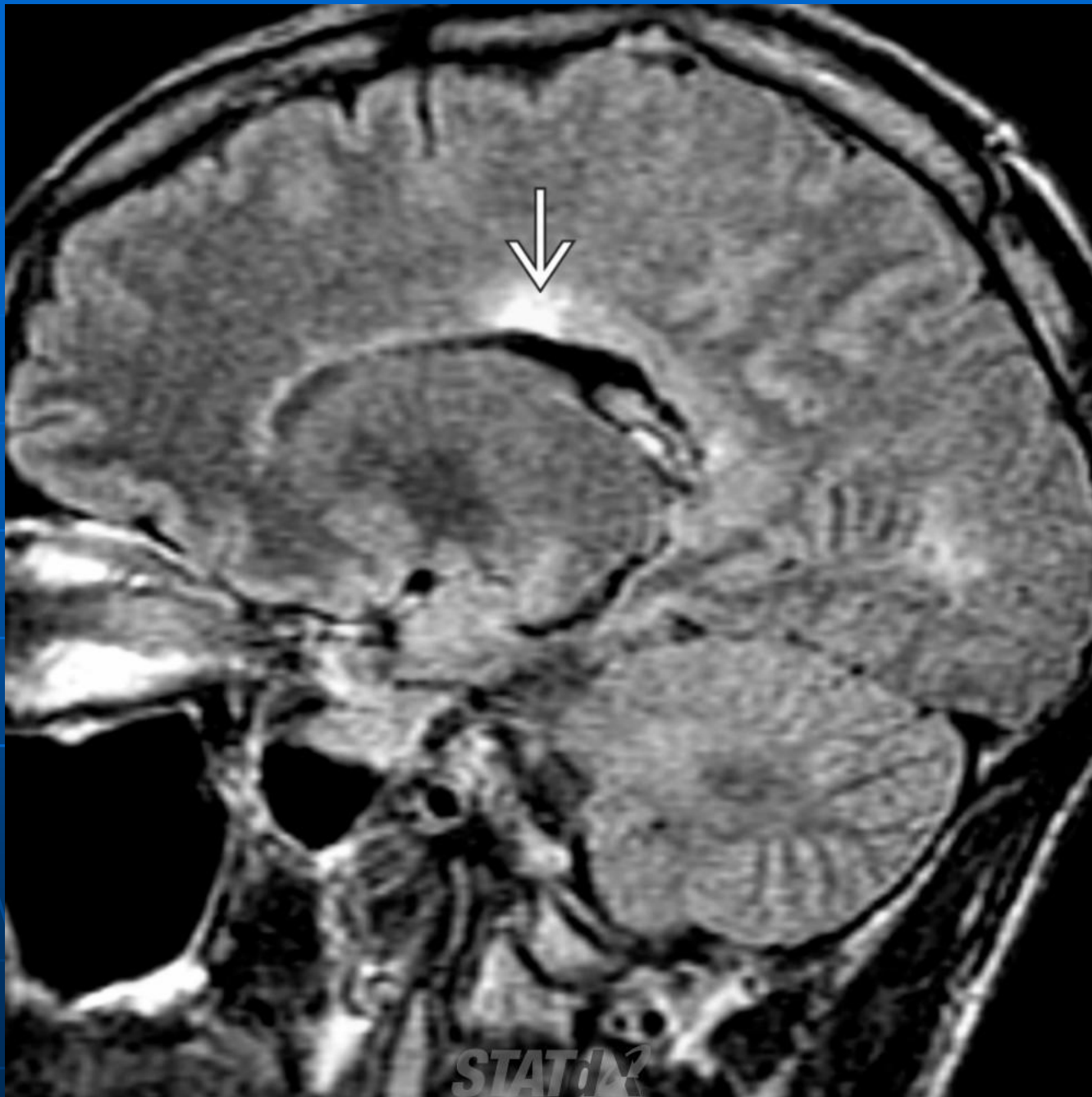
- Presumed to occur because of immunologic antibody-mediated reaction.
- Uncommon
- Insidious onset
- Most frequently an idiopathic illness
- Any age
- May affect cranial nerves
- T2 hyperintense plexus with diffuse bilateral nerve thickening, +enhancement

Imaging

- Enlargement and abnormal T2 hyperintensity of nerve roots, plexi, or peripheral nerves
- Spinal nerve roots and peripheral nerves (extraforaminal > intradural)
- Lumbar > cervical, brachial plexus, thoracic/intercostal > cranial nerve
- Can see brain lesions like MS



Sagittal T2WI MR reveals enlargement and abnormal T2 hyperintensity of the exiting extradural lumbosacral nerves (white solid arrow). Diffuse nerve root hypertrophy and enhancement can be extensive in CIDP.



Sagittal FLAIR MR of the brain in a CIDP patient shows a typical paraventricular demyelinating lesion (white solid arrow) similar to those seen in multiple sclerosis patients.

Nerve root thickening/enhancement

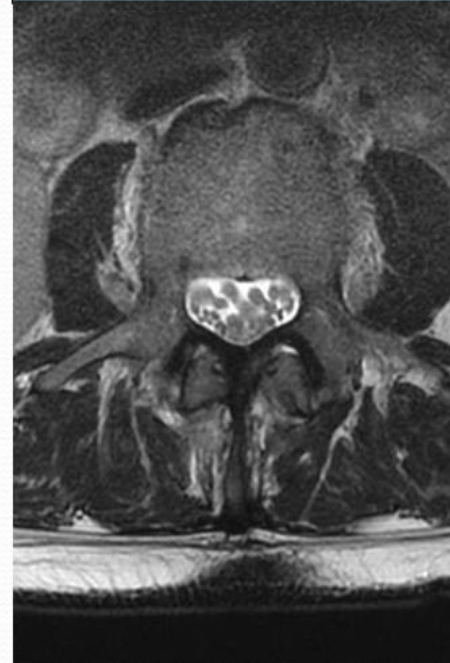
GBS



CIDP



CMT



Differential diagnosis of enlarged nerve roots

■ **Nodular Thickening**

- CSF Seeding (carcinomatous meningitis)
- Granulomatous disease
- Arachnoiditis
- Nerve sheath tumors (NF1 >> NF2)

■ **Smooth Thickening**

- Charcot-Marie-Tooth (inflammatory demyelinating polyneuropathy)
- Dejerine-Sottas
- *Chronic Inflammatory Demyelinating Polyradiculoneuropathy (CIDP)*