

Mononeuritis Multiplex

Vascular: vasculitis, diabetes (may be inflammatory/vasculitic)

Infectious/inflammatory: HIV, Zoster, Lyme, Leprosy, sarcoid, paraneoplastic, ?amyloid

Neoplastic: lymphomatous infiltration of peripheral nerves, multiple primary nerve tumors, multiple mets to individual peripheral nerves

Toxic: metals (Pb)

Inherited/degenerative: HTPP, Tangiers, porphyria

Motor neuronopathy/neuropathy

Infectious/inflammatory: polio, AIDP, CIDP, multifocal motor neuropathy with conduction block, paraprotein, paraneoplastic, Jakob-Creutzfeldt ds,

Toxic: metals (Pb)

Inherited/degenerative: spinal muscular atrophy (Werdnig-Hoffman-infantile C5, Kugelberg-Welander-childhood/adult C5, Kennedy's ds-X-linked bulbo-spinal muscular atrophy, Fazio-Londe-confined to cranial neurons, Sobue's-focal motor neuron ds of 1-2 limbs-usually upper ext, some frontal lobe dementias, some SCA (e.g. SCA3/Machado Joseph)

Sensory neuronopathy/neuropathy (may also fit in the spinocerebellar degeneration pattern when pyramidal and/or motor nerve is involved)

Infectious/inflammatory: HIV, HTLV I (with myelopathy), syphilis, Lyme, Sjogrens, sarcoid, AIDP, CIDP, paraprotein, paraneoplastic

Toxic: Vitamin B6 (>100 mg/d), cis-platinum, nitrous oxide

Endocrine/nutritional: Vitamin deficiency (B12, E),

Inherited/degenerative: Friedrich's, SCA,

Autonomic Neuropathy -(first differentiate preganglionic (MSA, PAF), from post-ganglionic (i.e. peripheral nerve)

Infectious/inflammatory: AIDP, POTS, amyloid, paraneoplastic

Toxic: Alcohol, drugs (Vincristine), metals (Th)

Metabolic: diabetes, mitochondrial cytopathy

Inherited/degenerative: Fabrys, porphyria, Tangiers, MSA, HSN I (Denny Brown-C9), HSN II (Morvan), HSN III (Riley Day or HSAN)

Distal sensorimotor peripheral neuropathy (DSMPN)-Length dependent

Mild and chronic

Screen for reversible causes: CBC, chem, ESR, CXR, SPEP, TSH, B12, drug and family history, toxin exposure
If negative treat symptomatically

Acute and/or progressive/severe- can try to classify as mainly axonal or demyelinating but most are mixed and many etiologies are listed under both categories

Axonal

Vascular: vasculitis[^] (less common than mononeuritis multiplex)

Infectious / inflammatory: HIV, CMV, sarcoid, paraneoplastic, paraprotein*, connective tissue disease (CTD)**,
AIDP/CIDP (axonal forms)

Toxic: alcohol, drugs (Amiodarone, AZT, Chloramphenicol, Chlorthalidone, cis-platinum and most other chemoRx drugs, nucleoside analogues-DDI, DDC, CT3, etc., Dilantin, Dapsone, disulfiram, Flagyl, Gold, INH, Nitrofurantoin, nitrous oxide, simvastatin, suramin, taxols, vinca alkaloids), metals (As, Pb, Hg, Th), chemicals (acrylamide, allyl-chloride, carbon disulfide, methyl N-butyl ketone, N-hexane, toluene, triortho-cresyl-phosphate, pesticides, solvents, ethylene dioxide, etc.)

Metabolic: renal failure, diabetes, critical illness polyneuropathy, ? hyperlipidemia

Endocrine / nutritional: hypothyroid, acromegally, Vitamin deficiency (B1, B6, B12, niacin, E)

Inherited/degenerative: HMSN II (a-C1, b-C3, c-C?, d-C7), ataxia telangiectasia, Nieman-Pick ds, neuraxonal dystrophy (kids), mitochondrial cytopathy, Fabrys ds, Tangiers ds, abetalipoproteinemia, Refsums ds, porphyria, , Cockaynes ds (kids), Giant axonal neuropathy (kids), MSA, cerebrotendinous xanthomatosis

Demyelinating

Infectious / inflammatory: HIV, CMV, sarcoid, diphtheria, paraneoplastic, paraprotein, CTD, AIDP, CIDP

Toxic: drugs (Dapsone, perhexiline, cyclosporine, FK 506,), metals (As, Pb)

Metabolic: renal failure, diabetes

Endocrine / nutritional: Acromegally, Vitamin deficiency (E)

Inherited/degenerative: HMSN I (a-C17-dup PMP22, b-C1-mut Po, X-linked-conexin 32), HMSN III (nonsense mut PMP22 or Po), HTPP (tomaculous neuropathy, C17-del PMP22) leukodystrophy, abetalipoproteinemia, Tangiers ds, Refsums ds, cerebrotendinous xanthomatosis

[^]Vasculitides: "Necrotizing"- PAN, Churg-Strauss, Vasc confined to peripheral nervous system, Rheumatoid vasculitis, "malignant" dermatomyositis, Wegeners, Lymphomatoid granulomatosis; "Large vessel": giant cell arteritis, Takayasu's; "Hypersensitivity or small vessel vasculitis": connective tissue diseases, Bechets, mixed cryoglobulinemia, Henoch-Shonlein purpura, drug reaction.

*Paraproteinemias associated with neuropathy: amyloid, MGUS, osteosclerotic myeloma, Waldenstroms, Heavy chain disease, lymphoma

**Connective tissue diseases associated with neuropathy: Rheumatoid arthritis, SLE, Sjogrens, Mixed CTD, Gluten enteropathy, primary biliary cirrhosis, eosinophilic myalgia and other hypereosinophilic syndromes

Polyradiculoneuropathy

Infectious / inflammatory: HIV, CMV, Hep B & C, EBV, syphilis, Lyme, diphtheria, sarcoid, paraneoplastic, paraprotein, CTD, AIDP, CIDP

Neoplastic: carcinomatous or lymphomatous meningitis

Toxic: metals (As, Pb), radiation

Metabolic: renal failure, diabetes, critical illness polyneuropathy

Endocrine / nutritional: Acromegally, Vitamin deficiency (E)

Inherited/degenerative: HMSN I (a-C17-dup PMP22, b-C1-mut Po, X-linked-conexin 32), HMSN III (nonsense mut PMP22 or Po), HTPP (tomaculous neuropathy, C17-del PMP22) leukodystrophy, abetalipoproteinemia, Tangiers ds, Refsums ds