

Causes

Hereditary
Metabolic/endocrine
Vascular
Toxic
Autoimmune
Paraproteinaemia
Paraneoplastic disease
Iatrogenic
Deficiencies
Trauma
Infective
Compression/entrapment
Idiopathic

Negative Symptoms

Loss of feeling, numb, deadness
Hypeaesthesia
Hypalgesia

Positive Symptoms

Pins and needles, tingling, burning
Paraesthesias
Dysaesthesias
Hyperalgesia
Hypeaesthesia
Allodynia

Other symptoms:

Diminished proprioception
Cramps
Diminished reflexes

Acute Symmetrical Peripheral Neuropathy

Caused by Guillain-Barre syndrome
Distal paraesthesia and proximal/distal wasting
1-2 weeks after a GI/respiratory infection
Schwann cells are attacked by immune cells



S&S

- Paraesthesia/pain in the limbs
- Weakness in the limbs (symmetrical)
- Both proximal and distal muscles affected
- Facial and bulbar paralysis
- Reflexes depressed/absent
- Variable sensory loss - rare
- Weakness of extraocular muscles -rare
- Usually affects the lower limbs and works its way up. Treatment needed ASAP before the condition affects the phrenic nerve

Multiple Mononeuropathy

- Caused by vasculitis (neurological emergency)
- Treated with steroids
- RA, SLE, Polyarteritis nodosa should increase suspicion of vasculitis

Chronic Symmetrical Peripheral Neuro

- Chronic + develops over several months
- Ask about alcohol consumption, toxin exposure (insecticides,solvents), drugs, carcinoma

B12 Deficiency

- Demyelinative and axonal - sensory
- Constant, distal tingling in paraesthesia
- Glove and stocking- hands before feet
- Can have distal motor loss
- Serum B12 levels to be checked
- Treated by intramuscular injections

Alcoholic Neuropathy

- Often affects small fibres - primarily sensory
- Usually starts in the feet - dysaesthesia
- Painless distal motor neuropathy
- Refer to GP to be treated with high doses of B1 + alcohol programs

Diabetic Neuropathy

- Burning in the feet - aching, cramping and tingling
- Worse at night
- Can present in the hands as erythralgia
- Sensory ataxia can be present



Diabetic Neuropathy (cont)

- Urine: Glucose/protein
- Haematology: FBC, ESR, B12 folate
- Biochemistry: Fasting glucose, TSH, Renal function, liver function
- Can mimic iatrogenic (cisplatin), neoplasm, Sjorgerns or idiopathic sensory mononeuropathy

Paraneoplastic syndromes

- Rare, an immune system reaction to a neoplasm/cancerous tumour
- Affects middle aged to older persons with lung, ovarian, lymphatic or breast cancer
- Neurological symptoms occur when immune cells attack cells in the nervous system
- Neurological symptoms = difficulty in walking/swallowing, loss of muscle tone, loss of fine motor coordination, slurred speech, memory loss, vision problems, sleep disturbances, dementia, seizures, sensory loss in the limbs, vertigo
- Lambert-Eaton, Stiff person syndrome, encephalomyelitis, myasthenia gravis, cerebellar degeneration, limbic/brainstem encephalitis, neuromyotonia, opsoclonus and sensory neuropathy are all neuro paraneoplastic syndromes
- Treated by steroids (decreases immune response), high dose intravenous immunoglobulin, plasmapheresis

Paraproteinemia

- Excessive amounts of single monoclonal gammaglobulin
- Underlying immunoproliferative disorder
- Caused by Leukaemias and lymphomas, Myeloma, Waldenström macroglobulinemia, Amyloidosis
- If no cause found "Monoclonal gammopathy of undetermined significance" is used

Erythromelalgia

- AKA Mitchell's disease, red neuralgia or erythromelalgia
- Blood vessels in lower extremities are blocked and inflamed
- Symmetrical severe burning pain, skin redness, swelling
- Triggered by: Heat, alcohol, sugar and melon consumption and exertion
- Can be primary or secondary
- Primary: mutation of voltage gated sodium channel
- Secondary: small fibre peripheral neuropathy, hypercholesterolemia, mushroom/mercury poisoning, some autoimmune disorders
- Primary sufferers often avoid wearing shoes/socks

Vasculitis

- Inflammation of the blood vessels due to an immune response
- Inflammation of a vessel can: Narrow it, Close off and stretch and weaken (aneurysm)
- Fever, swelling, feeling unwell
- Treated with steroids

