Multiple Sclerosis

Chronic inflammatory disorder characterised by plaques of demyelination in central nervous system causing neurological symptoms/disability.

Types of MS

- Relapsing-remitting (85%): intermittent relapses with subsequent total/partial recovery
- Secondary progressive: many people (65%) with relapsing-remitting MS go on to develop sustained, progressive disability
- Primary progressive (15%): constant progressive disability from the start (no relapses)

Clinical features

Any function of central nervous system can be affected but commonly affected areas include:

- Optic nerve: reduced visual acuity, central scotoma
- Medial longitudinal fasciculus: internuclear ophthalmoplegia
- Cerebellum: DANISH (Dysdiadochokinesia, Ataxia, Nystagmus, Intention tremor, Slurred speech, Hypotonia)
- Spinal cord: spastic paraparesis, lower limb sensory loss, urinary symptoms

Investigations

Diagnosis requires demonstration of demyelinating lesions 'disseminated in time and space'

- MRI brain/spinal cord (shows demyelination)
- Evoked potentials (may reveal delayed visual/auditory/sensory potentials due to demyelination)
- Cerebrospinal fluid analysis (for oligoclonal bands)

Management

Management requires a multi-disciplinary approach e.g. neurologist, specialist nurse, physiotherapist, occupational therapist, GP, speech and language therapist)

Acute relapses

- Methylprednisolone (IV or oral)

Preventing relapses (disease-modifying agents)

Available to patients with relapsing remitting MS or secondary progressive MS who meet certain criteria

- Highly effective: alemtuzumab, natalizumab
- Good: dimethyl fumarate, fingolimod
- Moderate: glatiramer, beta-interferon, teriflunomide

Symptomatic management

- Neuropathic pain: TCAs, gabapentin
- Incontinence: intermittent self-catheterisation for overflow, anticholinergics for urge
- Spasticity: physio, baclofen, gabapentin
- Oscillopia: gabapentin
- Fatigue: exercise, diet, amantadine

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