

□ Neurodegenerative Disease Management

□ Diagnosis

- **History & Examination:** Progressive neurological deficits, cognitive decline, motor/sensory disturbances.
- **Imaging:** MRI (e.g., hippocampal atrophy in Alzheimer's, nigrostriatal degeneration in Parkinson's).
- **Laboratory tests:** Rule out reversible causes (e.g., vitamin B12, thyroid, infections).
- **Biomarkers:**
 - CSF tau and A β 42 (Alzheimer's)
 - DaTscan (Parkinson's)
 - Genetic testing (e.g., Huntington's, ALS-related mutations)

□ Common Diseases and Their Management

□ Alzheimer's Disease

- **Pharmacologic:**
 - Acetylcholinesterase inhibitors: donepezil, rivastigmine
 - NMDA receptor antagonist: memantine
- **Non-pharmacologic:** Cognitive stimulation, caregiver support
- **Monitoring:** MMSE, ADAS-Cog

□ Parkinson's Disease

- **Pharmacologic:**
 - Levodopa + carbidopa
 - Dopamine agonists: pramipexole, ropinirole
 - MAO-B inhibitors: rasagiline, selegiline
- **Surgical:** Deep Brain Stimulation (DBS)
- **Rehabilitation:** Physical, occupational, and speech therapy

□ Amyotrophic Lateral Sclerosis (ALS)

- **Pharmacologic:** riluzole, edaravone
- **Supportive care:** Non-invasive ventilation, gastrostomy
- **Multidisciplinary care:** Neurologist, pulmonologist, nutritionist

□ Huntington's Disease

- **Symptomatic treatment:**
 - tetrabenazine for chorea

- SSRIs or antipsychotics for behavioral symptoms
- **Genetic counseling:** Essential for family planning

□ Disease Monitoring and Follow-Up

- Regular neurological evaluations
- Functional status: ADLs, gait, speech
- Imaging or biomarkers when appropriate
- Periodic cognitive testing

□ Multidisciplinary Management

- Neurology
- Neuropsychology
- Rehabilitation medicine
- Palliative care (advanced stages)

□ Preventive Strategies & Risk Reduction

- Control of vascular risk factors
- Cognitive engagement and physical activity
- Mediterranean diet, low in saturated fats

□ End-of-Life Planning

- Advance care directives
- Palliative and hospice support
- Family and caregiver guidance

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