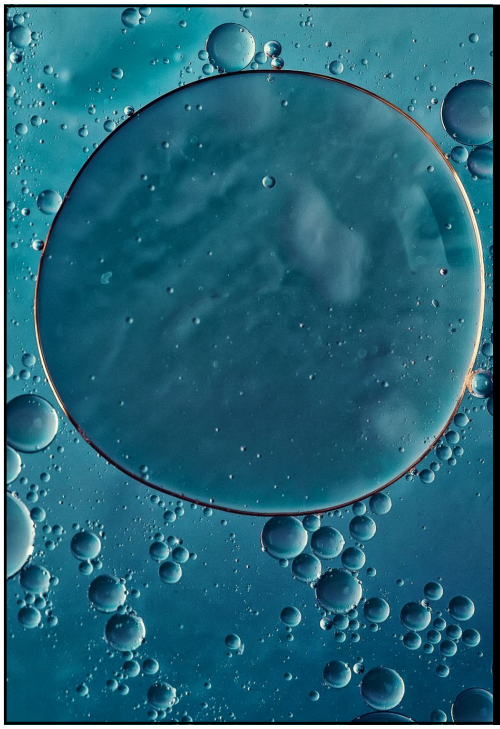


INTRODUCTION TO PARKINSON'S DISEASE AND MOVEMENT DISORDERS

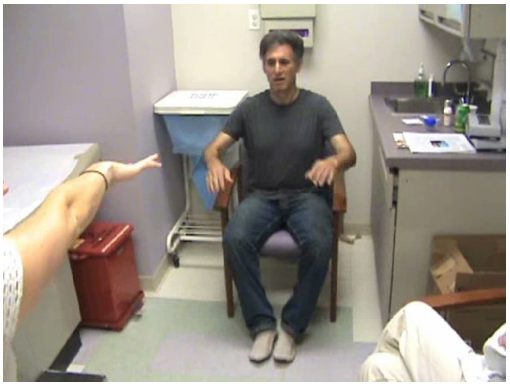
ODINACHI OGUH M.D

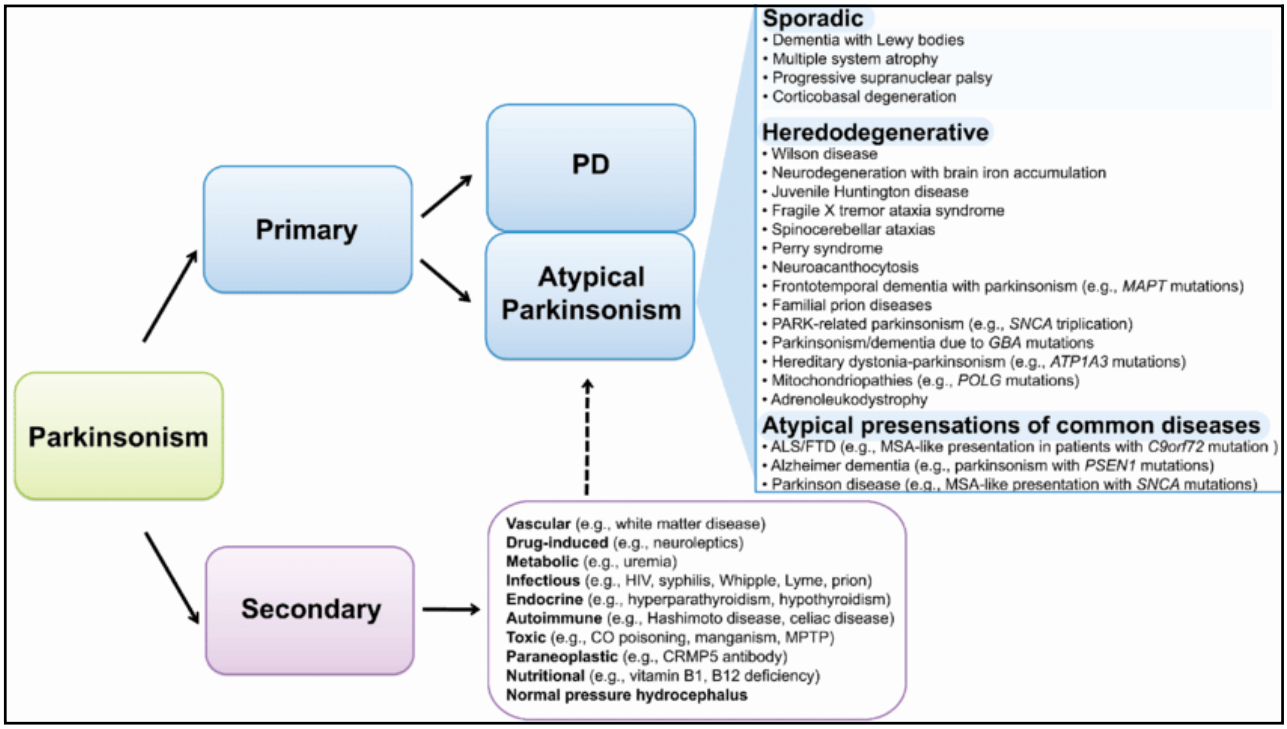
PARKINSONISM

Cardinal features

- Tremor
  - **Rest**
  - **Postural**
- Bradykinesia
- Rigidity
- (Postural reflex impairment)

Need 2/3





DIAGNOSING PARKINSON'S DISEASE

UNITED KINGDOM PD SOCIETY BRAIN BANK CRITERIA

Step 1

- Bradykinesia
- At least 1…

  Rigidity

  4-6 Hz rest tremor

  Postural instability

  - Not visual
  - Not vestibular
  - Not cerebellar
  - Not sensory

https://youtu.be/3-wrNhyVTNE

DIAGNOSING PARKINSON'S DISEASE

UNITED KINGDOM PD SOCIETY BRAIN BANK CRITERIA

Step 2—exclusions

- Stepwise progression
- Head injuries
- Encephalitis
- Oculogyric crises
- Neuroleptics
- Familial
- Remission
- Strictly unilateral
- Supranuclear gaze palsy
- Cerebellar signs
- Early, severe ANS
- Early, severe dementia
- Babinski sign
- Tumor/hydrocephalus
- Dopa unresponsive
- MPTP

Hughes et al. JNNP;55:181-184

DIAGNOSING PARKINSON'S DISEASE

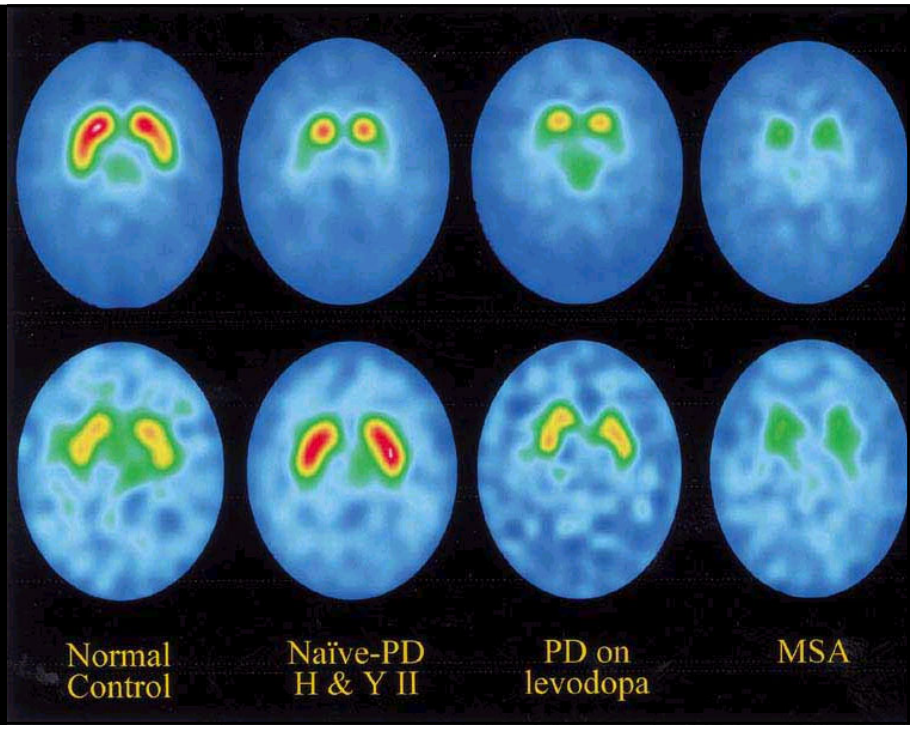
UNITED KINGDOM PD SOCIETY BRAIN BANK CRITERIA

Step 3—supportive features

- Unilateral onset
- Rest tremor
- Progressive disorder
- Persistent asymmetry, worse on onset side
- 70-100% response to levodopa
- Severe levodopa-induced dyskinesias
- > 5 year history levodopa-responsiveness
- Disease course ≥ 10 years

Hughes et al. JNNP;55:181-184

IMAGING THE DA SYSTEM DOPAMINE TRANSPORTER & D2 RECEPTOR SPECT



MULTIPLE SYSTEM ATROPHY

Parkinsonism

- May be asymmetric
- No Rest tremor
- Early gait disorder
- ± Levodopa response

Cerebellar signs

- Gait disorder
- Limb ataxia (later)
- Nystagmus

Other motor

- Hyper-reflexia
- Antecollis
- Spastic dysarthria
- Bulbar dysfunction
- Limb dystonia

Autonomic

- Orthostatic ↓ BP
- Sexual dysfunction
- Incontinence

DEMENTIA WITH LEWY BODY

2nd most common degenerative dementia

Differentiation from PD dementia evolving

- Core features dementia & parkinsonism within 1 year
- Fluctuating level of consciousness
- Hallucinations
- Extreme sensitivity to neuroleptics

PROGRESSIVE SUPRANUCLEAR PALSY CLINICAL FEATURES

Parkinsonism
- Symmetric
- Early gait/balance
- Falls in 1str year
- Tremor uncommon

EOM
- Supranuclear palsy
- Square wave jerks
- Absent OKN

Other motor
- Neck extension
- Bulbar dysfunction
- Limb dystonia

Cognitive
- Frontal dementia

Litvan I, et al. Neurology 1996;47:1-9.

CORTICOBASAL DEGENERATION

Parkinsonism
- Rigidity

Other motor
- Apraxia
- Myoclonus
- Dystonia
- Alien limb
- Pyramidal signs
- Bulbar dysfunction

Cortical sensory loss

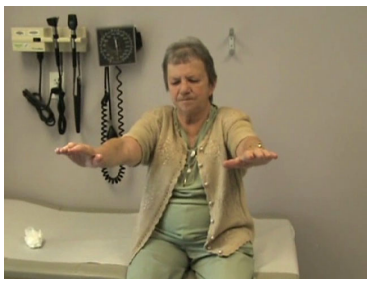
Gaze palsy

Dementia
- Typically late
- Early Pick's-like

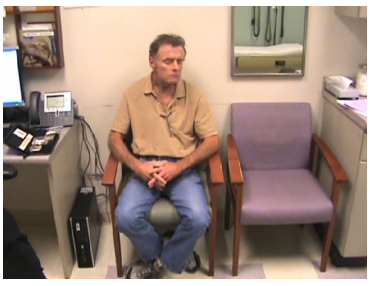
https://www.youtube.com/watch?v=tfjqlM7B6MY

TREMORS

ESSENTIAL TREMORS

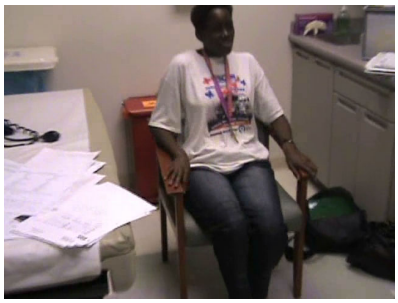


DYSTONIC TREMORS



CHOREA

Huntington's disease	HD negative ND disease	Secondary causes
• Symptom onset: • Motor signs 60% • Behavioral 15% • Behavioral and Motor 25%	• HDL diseases -1,2,3 • HLA -4 (SCA 17) • PKAN pantothenate kinase associated neurodegeneration or neurodegeneration with brain iron accumulation (NBIA) • Dentorubro-pallidoluysian atrophy (DRPLA • Neurocanthocytosis	• Autoimmune →Sydenham's Chorea • Lupus (lupus anti-coagulant) • Systemic sclerosis • Paraneoplastic syndrome • Metabolic - →Diabetes non-ketotic hyperglycemia, hypoglycemia • Drug induced → Tardive dyskinesias



ATAXIAS

Ataxia Classification

Etiological

Hereditary
- AD
- AR
- XL
- Mitochondrial

Non Hereditary
- Infections
- Immunological
- Demyelination
- Vascular
- Tumor
- Endocrine, Metabolic
- Nutritional
- Drugs/Toxic
- Physical
- Degenerative
- Developmental

Anatomical

Cerebellar

Vestibular

Spinal

Peripheral nerves

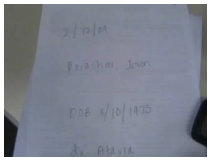
Ataxia Plus Syndrome
- Cortical
- Subcortical
- Brain stem
- Spinal cord
- Ant horn cell
- Pyramidal
- Extrapyramidal
- Cranial / Peripheral nerves
- Muscle
- Raised ICT
- Systemic Disease

Clinical

Age of onset
- Childhood,
- Adulthood,
- Old age

Onset
- Acute
- Sub-acute
- Chronic

Progression
- Recurrent
- Progressive
- Non-progressing




QUESTIONS