MOVEMENT DISORDERS

ATAXIA CEREBRI

MOVEMENT DISORDERS

1. CONTROL OF VOLUNTARY MOVEMENT BECOMES DYSREGULATED IN MOVEMENT DISORDERS DUE TO DISRUPTION OF NEURAL CIRCUITS. THESE IMPAIRMENTS CAN ARISE FROM BASAL GANGLIA, MOTOR CORTEX, OR CEREBELLUM

DIFFERINTIATED:

HYPOKENETIC

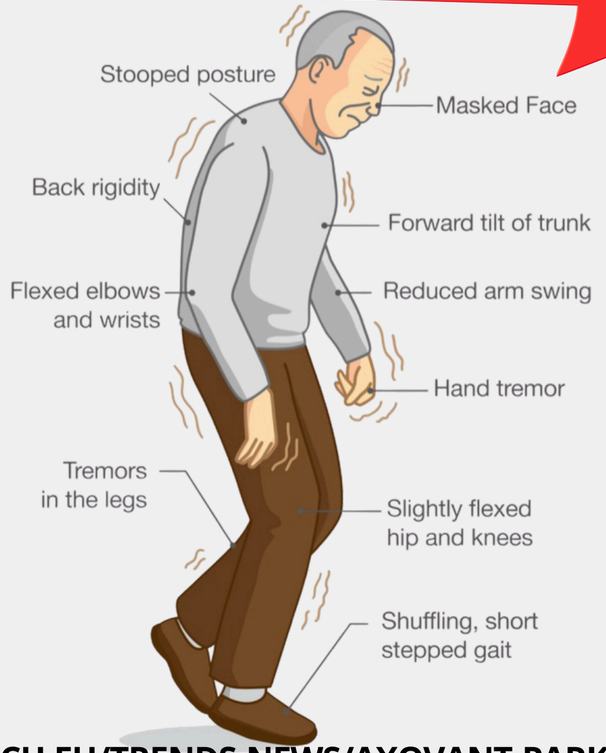
HYPERKENETIC

ATAXIC DISORDER

UMN DYSFUNCTION

HYPOKENETIC DISORDER

1.ARISE FROM BASAL GANGLIA



EX: PARKINSON'S DISEASE

BRADYKINESIA
RIGIDITY
RESTING TREMOR
POSTURAL INSTABILITY

HTTPS://WWW.LABIOTECH.EU/TRENDS-NEWS/AXOVANT-PARKINSONS-DISEASE-GENE/

HYPERKINETIC DISORDERS

1.ARISE FROM BASAL GANGLIA

EX: BALLISMUS

VIOLENT FLINGING MOVEMENT

ATAXIC DISORDERS

1.CEREBELLUM

Wide-Based Gait

Intention Tremor

Dysmetria

Dysdiadochokinesia

EX: CEREBELLAR ATAXIA

WIDE-BASED GAIT
INTENTION TREMOR
DYSMETRIA
DYSDIADOCHOKINESIA

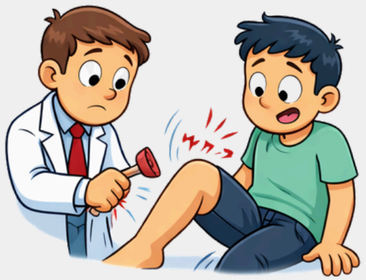
UMN DYSFUNCTIONS

1.MOTOR CORTEX

UMN LESION DUE TO STROKE

Spasticity

Clonus



Hyperreflexia

Weakness

SPASTICITY
CLONUS
HYPERREFLEXIA
WEAKNESS

WHAT IS CEREBELLAR ATAXIA

- CEREBELLAR ATAXIA IS THE DYSFUNCTION OF THE CEREBELLUM THAT IS RESPONSIBLE FOR VOLUNTARY MOVEMENT, BALANCE AND POSTURE, MOTOR LEARNING, AND PRECISION TIMING

- SYMPTOMS:
GAIT INSTABILITY (HALLMARK)
DYSMETRIA
INTENTION TREMOR
DYSARTHRIA
NYSTAGMUS
DYSDIADOCHOKINESIA
SLURRED SPEACH

- CAUSE: STROKE, HEMORRHAGE(PICA), DRUG TOXICITY, ALCOHOL INTOXICATION, AUTOIMMUNE, VITAMIN DEFICIENCY (B1, B12, VITAMIN E), PARANEOPLASTIC CEREBELLAR DEGENERATION, POST INFECTION (MOST COMMON)
GENETIC: FRIEDREICH'S ATAXIA

CEREBELLAR ATAXIA

IN EXAMINATION PATIENTS WILL HAVE IMPAIRED COORDINATION. AN EXAMPLE: FINGER TO NOSE TEST.

CEREBELLAR VS. SENSORY ATAXIA: IN SENSORY ATAXIA CLOSING THE EYES WOULD RESULT IN POSITIVE ROMBERG SIGN. IN CEREBELLAR ATAXIA THE INSTIBILITY OF BALANCE ALWAYS PRESENT.

CEREBELLAR ATAXIA

DIAGNOSIS: MRI*, DRUG SCREENING, GENETIC TESTING, LUMBAR PUNCTURE, TOXICOLOGY SCREENING, VITAMIN LEVELS

MRI IS VERY ESSENTIAL TO RULE OUT ANY STRUCTURAL LESIONS

CEREBELLAR ATAXIA TREATMENT

TREATMENT:
GENETIC: SUPPORTIVE
VITAMIN DEFICIENCY: SUPPLEMENT
TOXIC: REMOVING THE TOXIC
TUMOR: SURGERY/RADIATION
AUTOIMMUNE: STEROIDS
INFECTION:SUPPORTIVE

REHABILITATION: PHYSICAL THERAPY, SPEECH THERAPY, OCCUPATIONAL THERAPY IS KNOWN TO SIGNIFICANTLY IMPROVE QUALITY OF LIFE