

NEUROLOGICAL PHYSICAL THERAPY PAPER

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Q.1

A.

Parkinsonism: Parkinsonism is a syndrome characterized by a combination of Bradykinesia, stiffness, tremors, and postural instability.

- Rapidly progressive condition.
- More than 80 % of the identified cases are due to Parkinson's disease.
- Take a longer duration to respond or do not respond.
- Slow, shuffling gait with festination, retropulsion

Parkinson Disease: Is a clinical syndrome characterized by lesions in the basal ganglia.

- Include resting tremors, rigidity, stiffness, akinesia and postural dysfunction.
- Root cause is multifactorial such as heredity, positive family history, advanced age, and environmental toxins.
- Respond faster.
- Mainly movement disorder.

B.

Clinical Feature of Parkinson Disease:

Primary Features:

- Abnormal gait
- Rigidity
- Masked face
- Postural abnormality
- Bradykinesia
- Resting tremors

Secondary Features:

- Autonomic disturbances
- Micrographic
- Psychological problems
- Sensory problems
- Sleep disturbance
- Cough
- Sialorrhea
- Personality problems
- Speech problems

Physical Therapy Management:

- Strengthening exercise
- Stretching exercises
- Flexibility exercises
- Balance exercises

- Breathing exercises
- Facial mobility exercises
- ROM exercises
- Coordination exercises.

Q.2

Lobes of brain:

1. Parietal lobe:

- Touch perception
- Movement control
- Manipulation of objects

2. Occipital lobe:

- Visual Reception
- Local Orientation
- Shape Perception

3. Cerebellum :

- Coordination
- Balance
- Reflex Motor Acts

4. Frontal Lobe:

- Voluntary Movement
- Planning
- Intellect
- Problem Solving
- Abstract Reasoning

5. Temporal Lobe:

- Long Term Memory
- Speech Comprehension
- Object Perception
- Faces Recognition
- Hearing

6. Brain Stem:

- Conduction
- Tract for Pain, Temp , Pressure Sensation

Q.3

Stroke: A Stroke is a medical Emergency that happens when the blood flow to your Brain is interrupted. Without Blood, your Brain cells start to die. This can cause serious symptoms, lasting disability and even death.

Types of Stroke:

- **Ischemic Stroke (Blockage):** Caused by a Blockage in Blood Vessels in Brain
- **Hemorrhagic Stroke(Bleeding):** Caused by burst or Leaking blood vessels in brain

A. Neurological Complications of Stroke: Result of all patients, 95 % had at least one complication. The most common serious medical complication was pneumonia and the most common serious neurological complication was new cerebral infarction or extension of the admission infarction.

Associated Condition of Stroke: Heart disease, blood pressure, cholesterol level, coronary artery disease.

B. Physical Therapy Interventions in Stroke Patients:

- Fitness and Muscle Strength
- Over-Ground Walking and Balanced Training
- Body Weight Supported Treadmill Training
- Robotic Gait Assist Devices
- Functional Electrical Stimulation