

Neurological Pathology

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1. Introduction

- Neurological pathology examines diseases of the brain, spinal cord, and nerves.
- These disorders affect movement, sensation, cognition, and behavior.

2. Vascular Disorders

- **Stroke:** sudden loss of brain function from disrupted blood supply.
- Ischemic stroke results from clots, while hemorrhagic stroke involves bleeding.
- Outcomes depend on the location and extent of damage.

3. Degenerative Diseases

- **Alzheimer's disease:** progressive dementia with amyloid plaques and tangles.
- **Parkinson's disease:** loss of dopamine neurons causing tremor and rigidity.
- Multiple sclerosis involves demyelination of nerve fibers.

4. Infections and Trauma

- Meningitis is inflammation of the meninges, often infectious.
- Encephalitis is inflammation of the brain tissue.
- Traumatic brain injury can cause hemorrhage and lasting deficits.

5. Other Conditions

- **Epilepsy:** recurrent seizures from abnormal electrical activity.
- Brain tumors may be primary or metastatic.
- Diagnosis uses imaging, EEG, and cerebrospinal fluid analysis.