%PDF-Poliomyelitis Notes

Poliomyelitis (Orthopaedics) - High-Yield MCQ Notes

Definition: - Acute viral infection caused by Poliovirus (Enterovirus) - Affects anterior horn cells of spinal cord - Leads to lower motor neuron (LMN) paralysis

Types: 1. Abortive polio – mild, no paralysis 2. Non-paralytic polio – aseptic meningitis 3. Paralytic polio - Spinal (most common) - Bulbar - Bulbo-spinal

Mode of Spread: - Feco-oral route - Less commonly respiratory

Age Group: - Mostly children <5 years - Unvaccinated population

Pathology: - Destruction of motor neurons → muscle weakness, wasting, flaccid paralysis

Clinical Features: Acute Stage: - Fever, headache, myalgia, neck stiffness - Followed by paralysis

Paralytic Stage: - Asymmetric flaccid paralysis - No sensory loss - Areflexia, muscle wasting, fasciculations - Lower limbs more affected

Characteristic Features: - Asymmetrical involvement - Proximal muscles > distal - No bladder/bowel involvement

Commonly Affected Muscles: - Quadriceps, Glutei, Tibialis anterior, Gastrocnemius

Deformities: - Foot drop (most common) - Equinus, Calcaneus, Genu recurvatum, Scoliosis, Limb length discrepancy

Stages (Orthopaedic View): 1. Acute stage 2. Recovery stage 3. Residual paralysis stage (surgery indicated)

Diagnosis: - Clinical diagnosis - Stool culture → poliovirus - CSF: lymphocytosis, mild protein ↑, normal glucose

Management: Acute Stage: - Bed rest, analgesics, avoid IM injections, proper positioning

Rehabilitation: - Physiotherapy, splints, bracing

Surgical Management: - Tendon transfer (most common), Arthrodesis, Osteotomy, Muscle release - Donor muscle: strong (Grade 4/5), expendable, synergistic

Post-Polio Residual Paralysis (PPRP): - Permanent weakness → deformities & gait issues

Post-Polio Syndrome (PPS): - New muscle weakness decades later, fatigue, pain - Cause: overuse of surviving motor units

Prevention: - OPV (Sabin) – live attenuated - IPV (Salk) – killed

MCQs Rapid Fire: - Virus: Poliovirus - Nerve cell affected: Anterior horn cell - Paralysis type: LMN - Sensory loss: Absent - Most common limb: Lower limb - Most common deformity: Foot drop - Surgery timing: Residual stage - Common surgery: Tendon transfer