SNS COLLEGE OF ALLIED HEALTH SCIENCES

SNS Kalvi Nagar, Coimbatore - 35

Affiliated to Dr MGR Medical University, Chennai

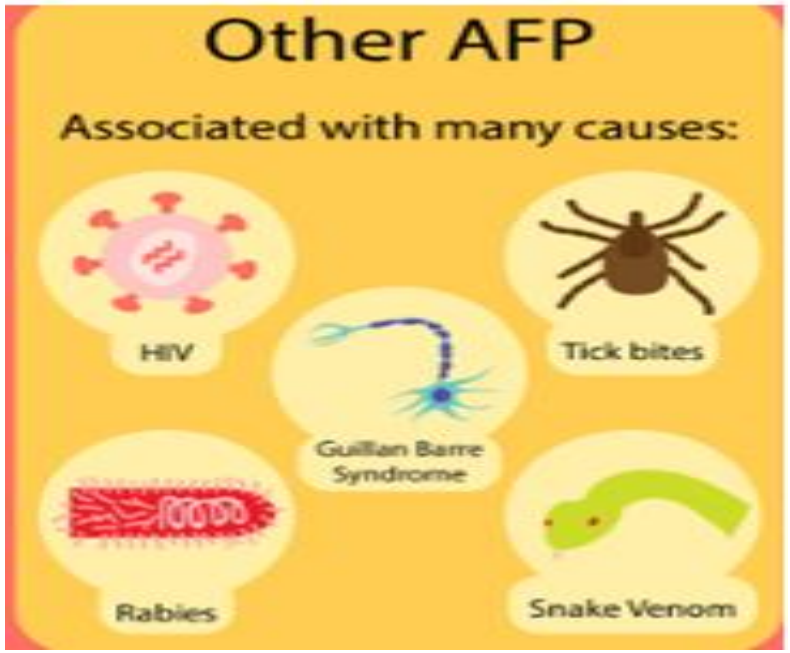
DEPARTMENT: ALLIED HEALTH SCIENCES

COURSE NAME: PAEDIATRIC

Topic: Acute Flaccid Paralysis

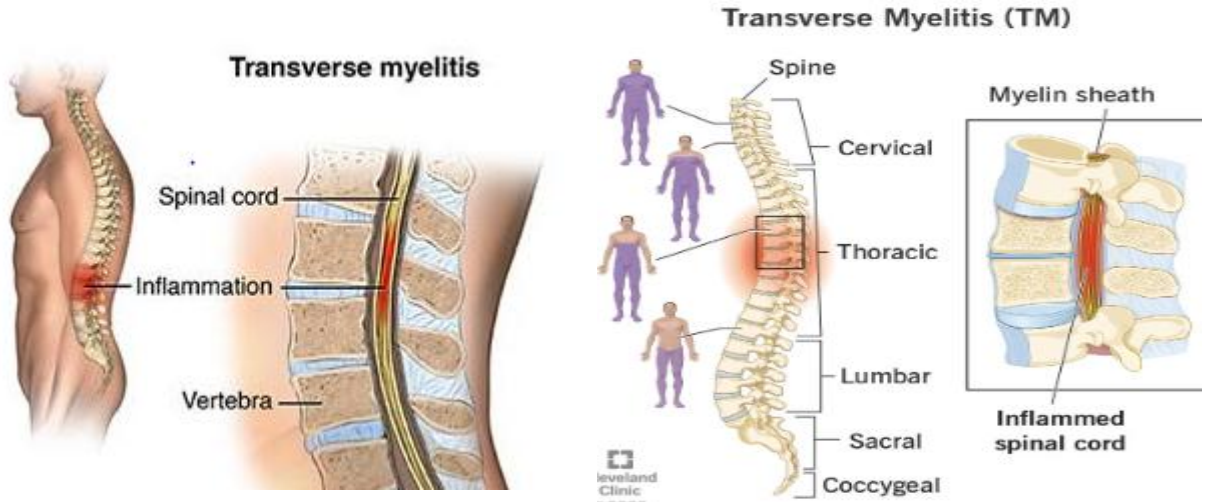
Definition

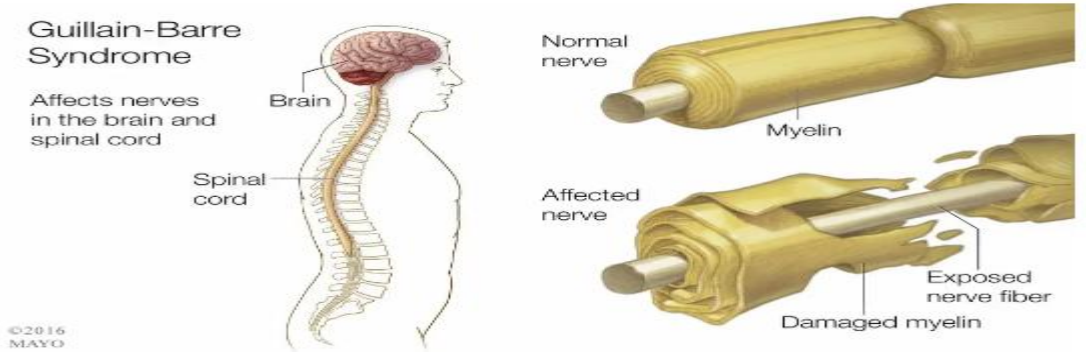
- Acute flaccid paralysis (AFP) is a clinical syndrome characterized by rapid onset of weakness of lower motor neuron type, including weakness of the respiratory and pharyngeal muscles, progressing to maximum severity within several days to weeks(with 15 days)



Differential diagnosis of AFP

- **paralytic poliomyelitis-** Polio, or poliomyelitis, is a disabling and life-threatening disease caused by the poliovirus. The virus spreads from person to person and can infect a person's spinal cord, causing paralysis
- **Guillain-Barré syndrome** - Guillain-Barré syndrome (GBS) is also called acute inflammatory demyelinating polyradiculoneuropathy (AIDP). It is a neurological disorder in which the body's immune system attacks the peripheral nervous system, the part of the nervous system outside the brain and spinal cord.
- **transverse myelitis-** Transverse myelitis is an inflammation of part of the spinal cord. The exact cause is unknown, sometimes due to infections or autoimmune diseases.





Assessment 1

- 1. what is AFP

- 2.What are the differential diagnosis of AFP?

Pathophysiology

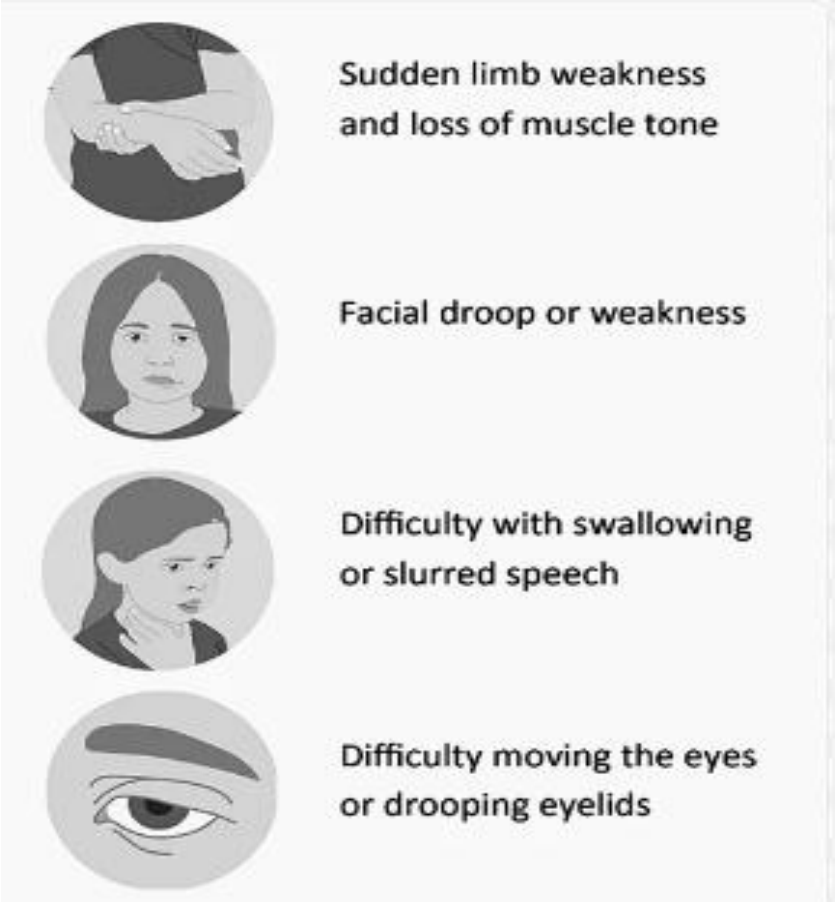
- Pathophysiology Autoimmune disorder (T cell sensitization)
- cause of demyelination Due to attack of the myelin sheath of nerves by: antibodies (Ig M, Ig G) white blood cells (macrophages) nucleus Complement activation on the outer surface of myelinated fibers Because (POST-) Virus/Bacteria share antigenic sites with axons & peripheral nerve sheath or both
- inflammation causes leakage of proteins into the CSF causing raised CSF proteins without pleocytosis Can involve the peripheral nerves, cranial nerves, dorsal roots, dorsal root ganglia & sympathetic chain

Acute flaccid paralysis (AFP) surveillance

This is mainly seen in children below 15 years of age.

Clinical manifestation of AFP

Age <21 years	80–90%
Prodromal fever or viral illness	85–95%
Neurological onset to nadir <10 days	100%
Headache or neck stiffness at onset	12–60%
Asymmetric onset of weakness	65–95%
Limb weakness	85–95%
Upper limb weakness	60–85%
Flaccidity or hyporeflexia of affected limbs	95–100%
Neck, face, extraocular, or bulbar weakness	20–60%
Trunk weakness	30–70%
Requirement for mechanical ventilation	10–40%
Bladder or bowel dysfunction	5–40%
Non-specific sensory symptoms (eg, paresthesia)	10–20%
Cardiovascular autonomic dysfunction	<10%
CSF pleocytosis (with testing <5 days after	85–95%

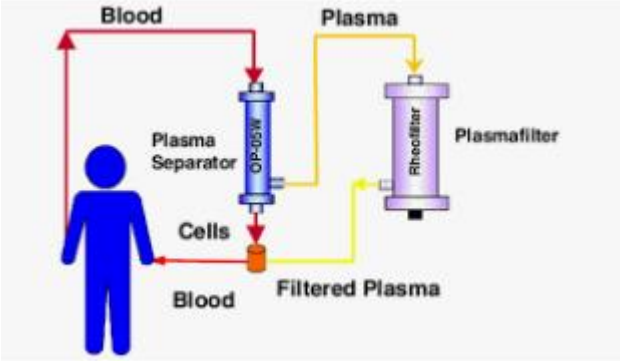


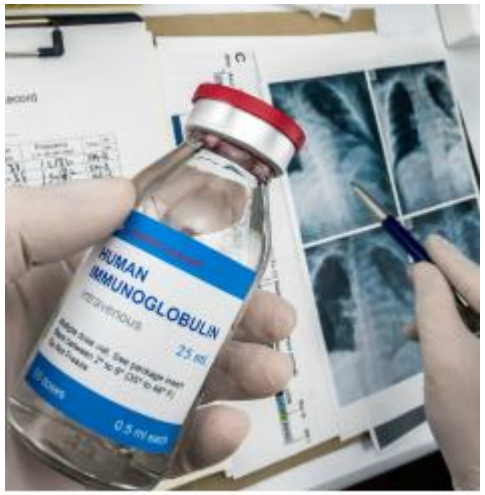
Diagnosis of AFP

- History collection
- Physical examination
- Cerebrospinal fluid- to view of inflammation around the brain & spinal cord
- MRI- to rule our grey matter lesion

Mangement of AFP

- Supportive care including hospital admission, medications such as steroids and
- treatments that include plasmapheresis and/or IVIG.
- **Plasmapheresis** is a therapeutic intervention that involves extracorporeal removal, return, or exchange of blood plasma or components
- **Immune replacement therapy: IVIg** given to babies or children who do not make enough of their own antibodies to fight infections. These infections may be present from birth or develop as a result of other diseases or treatments, e.g. chemotherapy.
- Physical therapy and
- occupational therapy is very important





Assessment 2

- 1. Mention the clinical ,manifestation of AFP
- 2. List down the Daignostic methods of AFP
- 3.Write down the treatment options of AFP

Summary

- Text book of paediatric author Santhosh kumar
- Referrence – for futher referrence -youtube