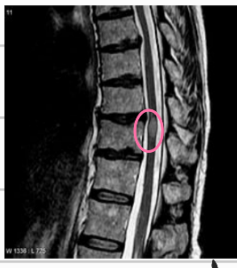
Acute flaccid paralysis



fusiform swelling !

* Transverse Myelitis.

→ inflammation across spinal cord segmentally

→ preceding by viral infection

→ clinical presentation: depend upon : ① level of spinal cord ② Extent of involvement (Sensory, Motor, Autonomic)

-Most commonly at thoracic spine

* prognosis : 60% spontaneous recovery

- Abrupt onset of progressive weakness and sensory disturbance in LL.
- Permenent urinary incontenee.
- flaccidity changing to spasticity
- UMNL in LL (spasticity, ↑ DTR, ↑ muscle tone)

* clinical Diagnosis

- CSF → Lymphatic pleocytosis
- MRI → fusiform swelling.

→ Management → High-dose Methylprednisolone → effective in ↓ duration of disease, improve outcome.

more effective! ← أكثر فعالية من ←

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* poliomyelitis

* Incubation period: 8–12 days

→ Viral infection that affect anterior horn cell.

→ IS Eradicable? Yes by?

① vaccine (OPV) → Cheap, easy to give, available, Safe, effective.

② Have only 3 subtypes (No cross immunity between them)

③ Human is the only reservior

④ No chronic carrier

* Immunity ?

IgG protect against CNS (IPV) - protect pt himself - induce immunity against 3 strains.

IgA protect against GI (OPV) - induce immunity against 2 strains - protect Community

→ The most devasting outcome → paralysis

→ Transmission → Mainly (feco-oral) Rarely (Droplet) ↔ Vaccine derived (OPV)

→ Tendency to affect Motor neurons.

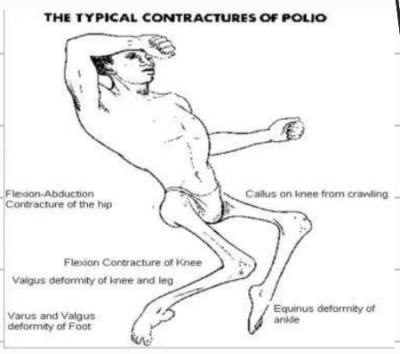
→ Clinical manifestation:

- 74% Asymptomatic
- 24% Abortive polio → <1% paralytic
  - Non-specific flu-like symptoms
  - Recovery is complete with no sequele
- 1–5% non paralytic (Aseptic meningitis) → Biphasic illness (sever flu → free s/s → sign of meningitis) (nuchal and spinal rigidity ----)
  - ↓ Reflex
  - (Abdominal cremastic → first affected)

* Paralytic polio → within 1–2 days / Asymmetrical flaccid paralysis
→ Proximal muscle, Descending paralysis | intact sensation
→ Transient sphincter defect.

Recognised 3 clinical syndromes:

① Spinal PP → occur 2nd phase of biphasic illness
→ lack of improvement after 1st week predict permenant paralysis ← if occur?
① limb atrophy
② Failure of growth
③ Deformity



② Bulbar poliomyelitis → Dysfunction of cranial nerves ± Medullary Center
→ affect 8, 9, 10, 11, 12
③ Bulbospinal poliomyelitis
→ virus affect C3–C5
→ paralysis of resp. m (Diaphragm)
* involve vital center: Can lead to resp. Failure and apnea
- Cardiovascular alteration.

* Diagnosis
→ Clinical Diagnosis (immunization / travel / contact)
→ WHO Diagnosis
→ Any child <15 yrs has AFP is polio UPO
→ Do 2 Stool test (separated by 24hrs) not less than 8mg (thumb size)
→ isolation and identification of polio v.
→ CNS analysis: - pleocytosis (20–300) → PMN
- protein ↑ (50–100) - glucose → Normal
→ Serology → ↑ AB titer 4 folds

* Management → Mainly supportive.
* prevention → Vaccine is the only effective method!
→ Complications of OPV? → 1 / 2.6 million.
① Vaccine ass polio paralysis (VAPP) → OPV mutates with in intestine of vaccinated pt lead to form of polio v. → can cause paralysis / affect close contact
② Vaccine derived poliovirus (VDPP) →
When un-vaccinated pt contaminated with polio vaccine from stool
Can lead to outbreak.

* GBS → production of Auto AB → destruct various part of Mylein sheath.
→ Autoimmune demylinating disorder that lead to progressive paralysis
→ The most common cause of AFP (M>F) ♂

* Eitology : 2/3 of pt → Complaint from URTI or GITI 1-4Ws prior onset of disease.
→ Campylobacter jejuni → MC / also viruses / and recent immunization (influenza vacc)
→ usually ass → H.lymphoma / SLE / HIV

* Auto Anti-Bodies :
① Anti GM1 / Anti-GQ1B → NMJ
② Anti GD1a → Nodes of Ranvier

* clinical manifestations : * Fever / Constutional s → absent (if present reconsider the DX)

① Motor
② Sensory
③ Autonomic
→ pain / weakness / paresthesia in disal extrimities
→ hypo / A-reflexid / crainal Nerves involvement → 7th N : Mostly affected
→ CVS / urinary / intestinal - dysfunction

→ paralysis : Symmetrical / Ascending / Distal / Recovery in 1-2 ws progressive.

* variants :
① Miller-Fisher syndrome (5%)
Acute ophthalmoplagia (papilledema / pupillary paralysis)
Areflexia
Ataxia
+ve Anti-GQ1B AB
② AIDP ② AMAN

* Investigations
→ LP → CSF → ↑x2 protein (100-1000)
→ < 10 WBC
→ glucose → Normal
→ Nerve conductive study → confirm diagnosis (↓ N. velocity)
→ Anti-gangliosides AB

* Treatment → IVIg (2g/kg) / Plasma pharesis
Steroid X

* prognosis → 85% → full recovery
→ < 5% → Mortality rate
30% of pt need ventilatory assistance

* Better prognosis in children
* poor prognosis : CNS involvement - intubation
- Maximum disability at presentation