FACIAL PALSY

The facial n. most emotive.

The prognosis of f. paralysis depends on:

- Cause
- Degree of damage

<u>3 degrees of pathology:</u>

1. Neuropraxia
2. Axonotemesis
3. Neurotemsis

ANATOMY

Is essentially a motor n.

Nucleus

Within the cranial cavity → in close relation to the VIII cranial nerve

→ into the internal auditary canal

At the bottom → enters facial canal → lat. above the vestibule → runs backward → right angle on the medial wall (middle ear) above the promontory and the oval window → then curves downward → through the mastoid → leaves through the stylomastoid foramen → parotid gland.

Facial nerve lesions:

- Supranuclear lesions (U.M.N.L's)
- L.M.N.L's
- Complete paralysis → asymmetry of face

Pathology of facial paralysis:

- May be affected by inflammation, compression, contusion, ischaemia, stretching, section, heat, cold or local anaesthetic.

CAUSES OF F. PARALYSIS:

- **Intacranial**

  --brain stem lesions (tumours, vascular, poliomyelitis, M.S.)

  --CPA lesions (neuroma, primary cholestetoma, meningitis …etc)

- **Intratemporal (extratemporal)**

  --O.M, trauma (surgical or accidental), herpes zoster oticus, tumours, idiopathic)

  --Miscellaneous: sarcoidosis, Melkerson-Rosenthal syndrome, glandular fever, leukaemia, polyneurotis (Guillain- Barrë syndrome)

Facial palsy in acute otitis media

- Usually incomplete, sheath inflammation (dehiscent)
- Rx. Antibiotic, myringotomy

Facial palsy in CSOM

- Compression → destroy by cholestetoma
- Rx. Neuropraxia--- surgery; decompression

  Sever or complete denervation--- surgery

  Tuberculous OM → anti T.B ± surgery

Postoperative facial palsy

- Predisposing factors: congenital course, lack of landmarks)
- Rx. Immediate complete paralysis → immediate exploration & repair, spontaneous recovery is not likely
- Incomplete paralysis of delayed onset → minor trauma (remove pack, steroids)

Facial paralysis in head injury

- May associated with damage to labryinth, middle ear, TM, meatal wall
- Minor contusion → neuroparaxia → incomplete
- Delayed onset → early recovery → complete
- Sever injury → complete immediate paralysis---Rx. Exploration & repair

Facial paralysis in herpes zoster oticus

- Caused by varicella zoster virus
- Other cranial nerves may be affected
- Signs & symptoms:

  Sever pain→ vesicles, paralysis, deafness, giddiness, nystagmus
- Recovery: slow, imperfect final results
- Rx. --general

  --steroids, acyclovir

Idiopathic facial palsy (Bell's palsy)

- L.M.N. of unknown cause.
- Theories (viral, vascular, autoimmune)
- Primary ischaemia
- Symptoms &signs:

1. Sudden onset paralysis
2. Pain is variable
3. Impairment of taste
4. Hyperacusis (stapedus paralysis)
5. Epiphoria

- Tests for taste, stapedus function, salivation, lacrimation—indicate the severity of lesion

Prognosis

-incomplete paralysis → complete recovery within 2-4 weeks

-complete paralysiss→ prognosis depends on n. excitability:

- if unimpaired after 1st 3-5 days (neuropraxia) → full recovery
- if lost → denervation → recovery after 3-4 months, final results are imperfect (10-15 %).
- EMG is a useful guide to prognosis

Rx.

-general measures

-no specific Rx. to prevent denervation or promote regeneration

1. Vasodilatation therapy
   - Nicotinic acid
   - Stellate ganglion
   - histamine
2. Prednisolone
3. Surgical decompression

Facial paralysis due to tumours within the temporal bone

- Rare

1. Acoustic neuroma
2. Glomus tumour
3. Ca. (external, middle ear)
4. Metastases
5. Primary nerve tumour

Facial paralysis due to exratemporal lesions

- Parotid
- Injuries (surgical, accidental)

Electrodignosis

- Essential degree of damage & progress of recovery

1. Minimal n. excitability
2. EMG
3. Electoneurography (ENG)

General measures:

- In sever or complete paralysis

1. Eye care
2. Self massage, galvanic stimulation