Bell's Palsy
Diagnosis and Managment

Bell's Palsy is the commonest cause of facial paralysis. 1 person in 70 is affected during their lifetime, and can occur at any age including children. It affects men and women equally. Exact aetiology is unclear but a viral (herpetic) cause is thought to be likely in many cases. Pregnancy and diabetes increase the risk of Bell's Palsy.

HISTORY

The main symptom is facial weakness, with eyebrow sagging and difficulty closing the eye on the affected side. Patients may have many other symptoms including:

- Facial asymmetry
- Difficulty speaking
- Dribbling or drooling
- Food collecting between the cheeks and gums.

Some patients have:

- Disturbed taste (the facial nerve carries signals for taste from the anterior two thirds of the tongue)
- Dry eye
- Excessive tears on the affected side (the facial nerve carries fibres to the tear glands)
- Reduced ability to tolerate ordinary levels of noise (the facial nerve has a branch that supplies stapedius)
- Ear pain.

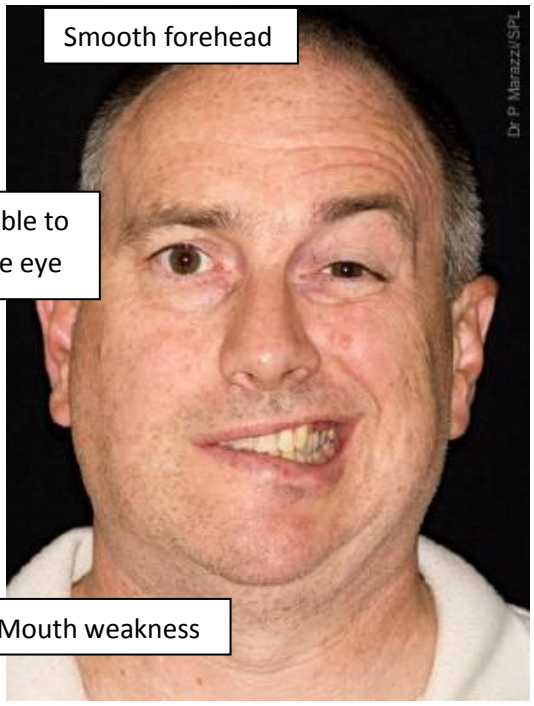
The weakness is initially progressive, reaching its maximum within a few weeks or less. Most patients recover over three to six months.

EXAMINATION

Lower Motor Neurone facial weakness **i.e. affecting the entire face.** (as opposed to UMN weakness in stroke which spares the forehead)

Assess for presence of vesicles in external auditory meatus and roof of mouth which suggest Ramsay Hunt Syndrome.

Examine tympanic membrane and parotid gland



Grading severity – Correlates with prognosis and helps to assess recovery.

House-Brackmann grading of weakness is:

1. Normal
2. Slight weakness

} Good prognosis

3. Obvious but not disfiguring asymmetry (eye closure)
4. Obvious and disfiguring asymmetry (no eye closure)
5. Barely perceptible movement
6. Total paralysis.

} Poor prognosis

Patients should have no other associated neurological, infective or mass findings elsewhere on examination; if present need to consider other potential causes.

INVESTIGATION IN THE ED

Patients with a clear history and signs of a Bell's Palsy do not require any further investigation

If the facial nerve weakness is upper motor in origin then you should look for the presence of an intracranial lesion (such as stroke or tumour) by brain imaging. The involvement of other cranial nerve lesions suggests either a structural lesion (such as a cerebellopontine angle tumour) or a more diffuse inflammatory cause.

MANAGEMENT **Most patients will recover without any treatment within 3-6 months**
Most patients do not require specialty referral, but should follow up with their GP

- Eye Care
  - Artificial tears, lubricant, eye patch or tape at night
  - Unable to close eye = unable to protect cornea = Refer to Opththalmology
- Prednisolone
  - Dose: **Prednisolone 50mg OD for 10 days**
  - If given within 72 hours increases chance of full recovery (81.6% Vs 94.4% at 9 months)
  - Seek advice prior to giving to patients who are pregnant or have diabetes, glaucoma or peptic ulceration
- Antivirals
  - No evidence to support routine use
  - Only of use in Ramsay Hunt Syndrome (herpes zoster vesicles at ear or in mouth)

PROGNOSIS

Most patients recover within 9 months.
Prognosis is related to the initial severity of presentation.
Prognosis is not as good with increased age, pregnancy and diabetes.

OTHER INFO:

The other possible causes of a unilateral facial nerve palsy:

- Diabetes
- Hypertension - as with diabetes this is probably due to microvascular compromise of the nerve
- Bacterial infection of the middle ear / cholesteatoma - this is usually obvious
- Parotid tumour - examine the patient for a parotid mass
- Facial trauma - either damage to the temporal bone or stylomastoid foramen may damage the facial nerve.

Rare causes include:

- Lyme disease - has the patient been bitten by a tick? Are there other clinical features of Lyme disease, such as rash, arthritis, vertigo, or hearing loss?
- HIV infection - this facial nerve palsy is 100 times more common in HIV positive patients than in immunocompetent patients.
- Syphilis
- Sarcoidosis - this may also cause bilateral facial nerve palsies

Bilateral Bell's palsy is rare. You should immediately refer patients with bilateral lower motor neuron facial nerve palsy to a neurologist because their symptoms are more likely to have another cause, such as:

- Guillain-Barré syndrome (look for absent reflexes in the limbs)
- Myasthenia gravis (look for ocular signs such as fatiguable ptosis or extraocular palsies)
- Neurosarcoidosis.