

Case

# Case

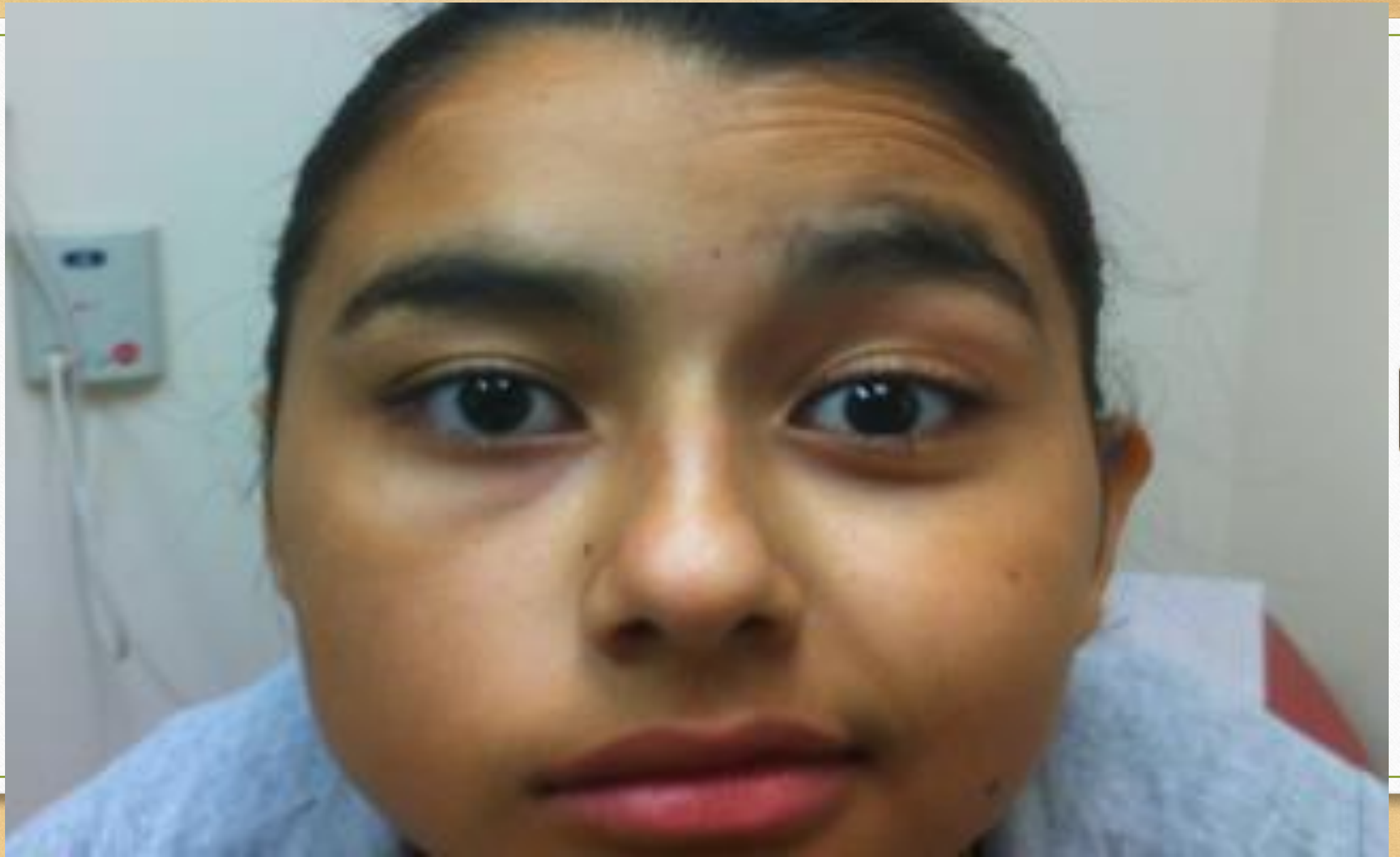
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- A 28 year old female had a fever for 12 days followed by weakness of the left half of the face 2 days after subsidence of fever.
- Patient had numbness over the left half of patient... mouth was noticed to be deviated to the right side. Patient had difficulty chewing food. Dribbling of saliva and running of tears from eyes, H/O pain in the ear and tinnitus prior to onset.
- Patient has no ear discharge and not diabetic

# Case

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- On examination patient was having no wrinkles on forehead
- Unable to close her eyes
- Whistle blow out
- Mouth deviated to right side
- Could not out platysma on left side



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- A Diagnosis of **Acute Complete Lower Motor Neuron** FACIAL PALSY was Made

# Bells Palsy Definition

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- It is an idiopathic paralysis of the facial nerve of sudden onset
- Unilateral lower motor neuron type paralysis of sudden onset, not related to any other disease elsewhere in the body .

# BELL'S PHENOMENON

- Normally on closing the eye, the eyeball moves upwards and inwards.
- This is obvious on the affected side due to ineffective closure of the eyelids
- also called the palpebral-oculogyric reflex
- It was Charles Bell, a great British anatomist, who first observed this in 1823 when trying to close the eyelids of a patient with facial palsy



# Bell's palsy

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- It can also lead to oral incompetence and incomplete closure of the eyelid (lagophthalmos) which predisposes to eye injury.
- Bell's palsy is the most common cause of unilateral facial paralysis affecting nearly 40,000 people in the US every year. While the precise cause is unknown, onset is often related to viral infection (e.g., flu, adenoviruses, CMV, herpes simplex, herpes zoster)



# Clinical Presentation

- Unilateral facial nerve paralysis

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- There is loss of facial creases and nasolabial fold
- Forehead unfurrows
- Corner of the mouth droops
- Eyelids cannot close and the lower lid sags
- Bell's phenomenon: When an attempt is made to close the eye, the eye rolls upward
- Hyperacusis
- Impairment of taste( anterior 2/3 )
- Tearing of eyes
- Drooling of saliva

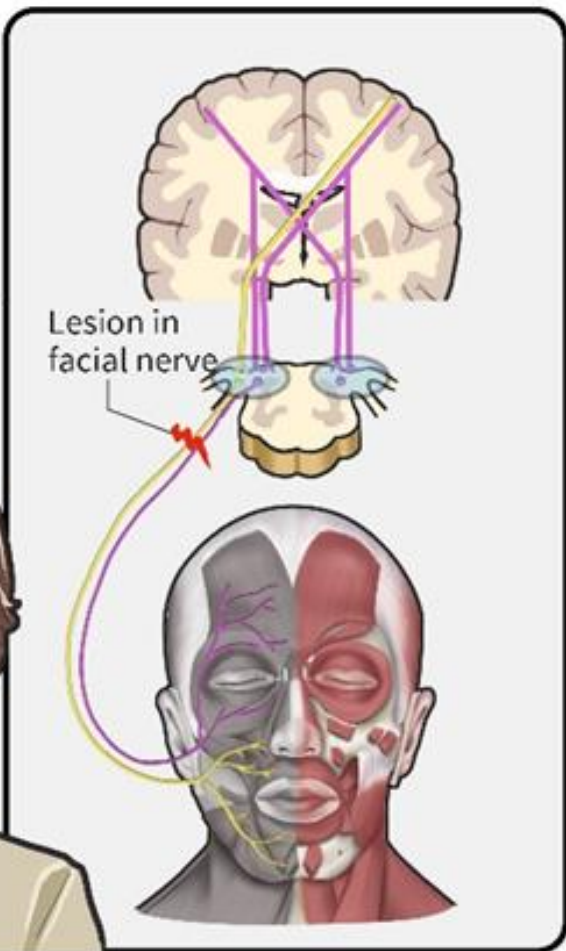
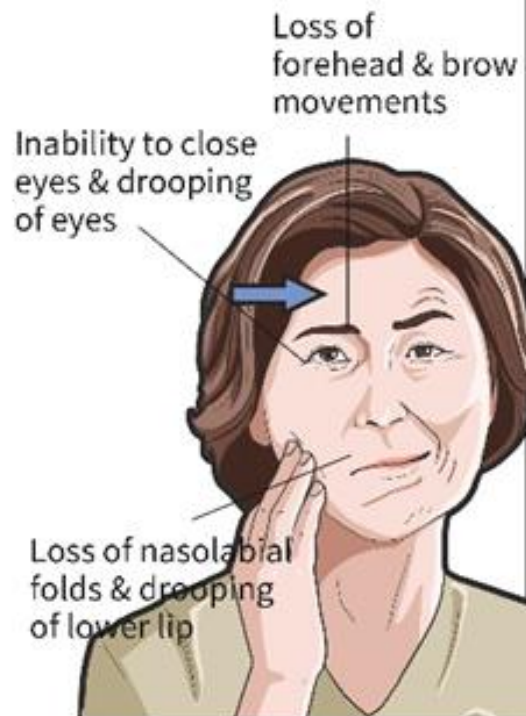
<b>Grade</b>	<b>Description</b>	<b>Characteristics</b>
I	Normal function	Normal function in all areas
II	Mild dysfunction	Slight weakness noticeable on close examination May have slight synkinesis
III	Moderate dysfunction	Obvious difference on both sides, not disfiguring Noticeable (not severe) synkinesis Motion: <ul style="list-style-type: none"> <li>• Moderate/slight movement of forehead</li> <li>• Complete eye closure with effort</li> <li>• Slight weakness of mouth with max. effort</li> </ul>
IV	Moderately severe dysfunction	Obvious weakness and/or disfiguring asymmetry Rest with normal symmetry and tone Motion: <ul style="list-style-type: none"> <li>• Without forehead movement</li> <li>• Incomplete eye closure</li> <li>• Asymmetry of the mouth with max. effort</li> </ul>
V	Severe facial dysfunction	Slightly perceptible motion. Asymmetry Rest with asymmetry Motion: <ul style="list-style-type: none"> <li>• Without forehead movement</li> <li>• Incomplete eye closure</li> <li>• Slight mouth movement</li> </ul>
VI	Total facial dysfunction	No movement

# NOTE:

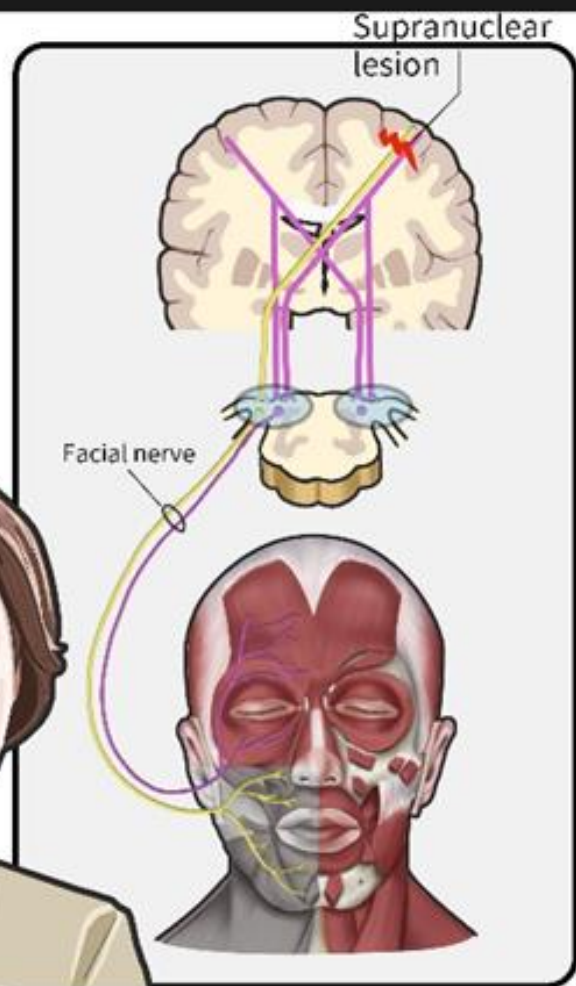
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- If the patient can furrow their brow, suspect central lesion because of dual innervation to the 1<sup>st</sup> branch of the facial nerve
- Rapid onset: Usually 72 hours from onset to maximum weakness
- Common age group: 15 to 45 years (both men and women)
- Pain: May be associated with ipsilateral pain surrounding the ear and face

## Peripheral facial palsy



## Central facial palsy



# Risk Factors

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- Pregnancy has been associated with Bell's palsy
- Obesity
- Hypertension
- Diabetes
- Upper respiratory ailments

# Testing

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- There is no indication for routine laboratory testing
- Based on the clinical setting, Lyme disease can account for up to 25% of cases and serologies may be helpful
- Routine use of brain imaging is not recommended
  - However, if paralysis is inconsistent with Bell's palsy, consider imaging to rule out CNS and other potential masses and lesions

# Differential Diagnosis

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- Systemic and infectious diseases: Lyme disease, Sarcoidosis, zoster
- CNS: Tumors, CVA
- Non-CNS tumors: Parotid gland, infratemporal fossa, cancer involving the facial nerve

# Treatment

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- Prednisone is recommended if started in 72 hours for patients  $\geq 16$  years
  - 50 to 60 mg daily for total of 10 days | Full dose for the first 5 days then taper over the next 5 days
  - Acyclovir or valacyclovir is optional to start and use together with steroids
- Eye protection
  - Can use eye patching or taping to prevent corneal abrasions, keratitis, and ulcerations



# Surgical treatment

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- Facial nerve decompression
- Indication.....
  - complete paralysis
- Appropriate time for surgery is 2-3 weeks after paralysis

# Prognosis/Follow-Up

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- 85% of patients show partial recovery within three weeks of onset
- Complete recovery occurs in 70% of patients in 6 months
- If recovery of taste occur in first week ,,,, good prognosis
- Early recovery of motor function in the first 5 to 7 days.... Most favorable prognosis
- Refer to specialist if
  - New or worsening neurologic symptoms appear at any time
  - Incomplete resolution at 3 months
  - Ocular complications



*Thank You*

GOD BLESS YOU!