Clinical Practice Guidelines: Bell’s Palsy

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Disclosure

• Member of the AAO-HNSF Guideline Development Group (GDG) responsible for the Clinical Practice Guideline: Bell’s Palsy
• http://oto.sagepub.com/

Learning Objectives

• At the end of this presentation, the participant will be able to:
  – Identify the differential diagnosis of facial weakness
  – Select appropriate physical exam, laboratory studies and imaging for facial weakness
  – Develop an evidence based management plan for the patient with Bell’s Palsy
History

Named for Sir Charles Bell, Scottish anatomist

Bell’s Basics

- Bell’s Palsy is an acute mononeuropathy
- Defined as “acute, unilateral facial nerve paresis (weakness) or paralysis (complete loss of movement) with onset in less than 72 hours and without an identifiable cause”
- Typically self-limited
- Bell’s has a Rapid onset (occurrence of paresis/paralysis typically reaches its maximum, peak severity within 72 hours of onset)
- Bilateral Bell’s palsy is Rare
- Diagnosis of exclusion
- Occurs in males, females children; most common in ages 15-45; diabetics, those with URI, immunocompromised, in pregnancy.

Anatomy & Pathophysiology
Epidemiology

- Annual incidence rate 13-34 cases/100,000
- It affects men and women equally and can occur at any age, but it is less common before age 15 or after age 60.
- Pathophysiology theories include:
  - Viral infection with inflammation and edema of nerve, genetic predisposition, HSV, ischemia

Clinical Presentation

- Sudden onset (within hours) of unilateral facial paresis/paralysis
  - Eyebrow sagging, inability to close eye, disappearance of nasolabial fold, mouth drawn to non-affected side
  - Possible decreased tearing, hyperacusis and loss of sensation/taste anterior 2/3 tongue
- Often psychologically devastating for patient

Progression of Bell’s

- Acute onset
- Peak in ~ 72 hours
- Usually some recovery without intervention in 2-3 weeks
- Complete recovery in 3-4 months
- 70 %-94 % recovery 6 months (if incomplete paralysis)
- 30 % may have some residual sequelae
Central vs Peripheral lesions

- Sparing of forehead muscles indicates **upper motor neuron (central) lesion**
- In general, Bell’s is an isolated CN VII neuropathy (lower motor neuron)

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Differential Diagnosis of CN VII Paresis

- Diagnosis of EXCLUSION
  - Acoustic neuroma and other cerebellopontine angle lesions
  - Acute or chronic otitis media
  - Amyloidosis
  - Aneurysm of vertebral, basilar artery, or carotid arteries
  - Autoimmune syndromes
  - Botulism
  - Carcinomatosis
  - Carotid disease and stroke - Including embolic phenomenon
  - Cholesteroloma of the middle ear
  - Congenital malformation

- Facial nerve schwannoma
- Gromulat ganglion infection
- Glomus tumors
- Guillain-Barré syndrome
- Herpes zoster
- Human immunodeficiency virus (HIV) infection
- Leukemia/lymphoma
- Leukemic meningitis
- Malignant otitis externa
- Melkerosen-Rosenthal syndrome
- Meningitis
- Meningioma
- Nasopharyngeal carcinoma

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Differential Diagnosis

- Disorders of the skull base
  - Otitis media
  - Parotid gland disease or tumor
  - Peritumoral lesions
  - Sarcoma
  - Skull base tumor
  - Teratoma
  - Tuberculosis
  - Viral syndromes
  - Wegener granulomatosis
  - Wegener vasculitis
  - Alcoholic neuropathy
  - Anesthesia nerve blocks
  - Basal skull fractures
  - Brain tumor
  - Benign intracranial hypertension
  - Birth trauma

- Carbon monoxide exposure
- Ophthalmia
- Facial injuries
- Facial trauma (blunt, penetrating, intracranial)
- Forcible delivery
- Iatrogenic - As in otologic, neurologic, skull base, or parotid surgery
- Infected mastoiditis
- Kawasaki disease
- Leprosy
- Metastatic disease
- Mumps
- Polynucleosis
- Temporal bone fracture
- Tetanus
- Thalidomide exposure
- Toxic encephalitis
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• Statement 1: Patient History and Physical Exam
  – Clinicians should assess the patient using history and physical examination to EXCLUDE identifiable causes of facial paresis/paralysis in patients presenting with acute onset, unilateral facial paresis/paralysis.

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• Statement 2: Laboratory Testing
  – Clinicians should NOT obtain routine laboratory testing inpatients with new-onset Bell’s Palsy.

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• Statement 3: Diagnostic Imaging
  – Clinicians should not routinely perform diagnostic imaging in patients with new-onset Bell’s palsy.
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- Statement 4: Oral Steroids
  - Clinicians should prescribe oral steroids with 72 hours of symptom onset for Bell’s Palsy in patients 16 years and older.

- Statement 5A: Antiviral Monotherapy
  - Clinicians should not prescribe oral antiviral therapy alone for patients with new-onset Bell’s Palsy.

- Statement 5B: Combination Antiviral Therapy
  - Clinicians MAY offer oral antiviral therapy in addition to oral steroids with in 72 hours of symptom onset for patients with Bell’s Palsy.
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• Statement 6: Eye Care
  – Clinicians should implement eye protection for Bell’s palsy patients with impaired eye closure.

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• Statement 7A: Electrodiagnostic Testing With Incomplete Paralysis
  – Clinicians should NOT perform electrodiagnostic testing in Bell’s palsy patients with incomplete facial paralysis.

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• Statement 7B: Electrodiagnostic Testing With Complete Paralysis
  – Clinicians may offer electrodiagnostic testing to Bell’s palsy patients with complete facial paralysis.
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• Statement 8: Surgical Decompression
  – No recommendation can be made regarding surgical decompression for Bell’s palsy patients.

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• Statement 9: Acupuncture
  – No recommendation can be made regarding the effect of acupuncture in Bell’s palsy patients.

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• Statement 10: Physical Therapy
  – No recommendation can be made regarding the effect of physical therapy in Bell’s palsy patients.
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• Statement 11: Patient Follow-up
  – Clinicians should reassess or refer to a facial nerve specialist those Bell’s palsy patients with
    • New or worsening neurologic findings at any point
    • Ocular symptoms developing at any point
    • Or incomplete facial recover 3 months after initial symptom onset

References

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• http://emedicine.medscape.com/article/1146903-overview#aw2aab6b2b4
• http://www.ninds.nih.gov/disorders/bells/detail_bells.htm