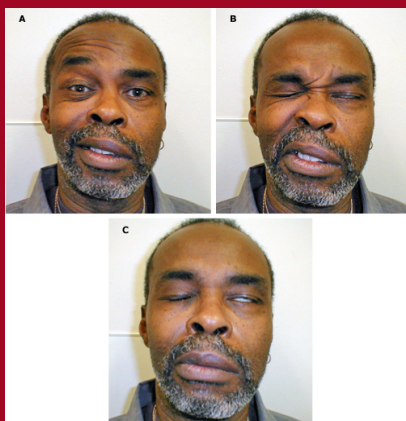


EM CASE OF THE WEEK

BROWARD HEALTH MEDICAL CENTER DEPARTMENT OF EMERGENCY MEDICINE

AUTHOR: ROCHELLE SAMARASEKERA, MS IV
 EDITOR: ANDREA SARCHI, DO



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Man with Left –sided Bell’s Palsy

Bell's palsy, defined as an acute peripheral facial nerve palsy of unknown cause, represents about half of all cases of facial nerve palsy

(A) shows inability to use forehead muscles (B) shows difficulty to close left eye and inability to raise left corner of mouth (C) shows drooping at the left corner of the mouth and loss of nasolabial fold on left.

EM CASE OF THE WEEK

EM Case of the Week is a weekly “pop quiz” for ED staff. The goal is to educate all ED personnel by sharing common pearls and pitfalls involving the care of ED patients. We intend on providing better patient care through better education for our nurses and staff.



Bell’s Palsy

A 16-year-old female with no past medical history presents to the ED with left sided facial weakness persisting for the past 24 hours. She has never experienced these symptoms prior to this episode. She denies weakness, fever or recent travel. Patient is afebrile and vitals are within normal limits. On physical exam, patient has left sided facial weakness, including her forehead muscles. She is unable to close her left eye completely and upon asking her to smile, the left side of her face stays flat. Sensation is intact over the face bilaterally. Remainder of neuro exam is within normal limits. Which of the following is the most appropriate initial treatment for this patient’s condition?

- A. Acyclovir taken orally in doses of 400 mg orally 5 times daily for 10 days
- B. Valacyclovir taken orally in doses of 500 mg twice daily for 5 days
- C. Valacyclovir taken orally in doses of 1000 mg three times daily PLUS Prednisone 60 to 80 mg per day for 1 week
- D. Surgical decompression
- E. Electronic nerve stimulation



Broward Health Medical Center
 Department of Emergency Medicine
 1625 SE 3rd Ave
 Fort Lauderdale, FL 33316



(via <http://www.medicalclinicsofnyc.com/bells-palsy/>)

Bell's Palsy

The correct answer is C. Valacyclovir taken orally in doses of 1000 mg three times daily PLUS Prednisone 60 to 80 mg per day for 1 week

Bell's palsy is the term commonly used to describe an acute peripheral facial palsy of which the cause is unknown. Herpes simplex virus activation is thought to be the most likely cause of Bell's palsy in most patients; however, there is no way to verify this diagnosis in patients. Bell's palsy represents about half of all cases of facial nerve palsy. The annual incidence is between 13 and 34 cases per 100,000 population. There is identified race, geographic, or gender partiality, but the risk is three times greater during pregnancy.

Take Home Points

- There are many causes of facial nerve palsy, including infectious, congenital, and traumatic. Approximately one half of all cases have unknown cause and are labeled Bell's palsy.
- The diagnosis of Bell's palsy is based upon criteria of involvement of distal branches of facial nerve present, as well as acute presentation of symptoms (within 1-2 days).
- In acute cases of typical Bell's palsy with incomplete paralysis, imaging studies are not required.
- Mainstay of treatment for Bell's palsy is glucocorticoid therapy. For severe facial palsy (characterized by IV or greater on House-Brackmann scale), it is appropriate to use combination of glucocorticoids and antiviral drugs.

Discussion

The facial nerve has a complex anatomy and function which renders it susceptible to neurological disorders. Facial nerve palsy can be caused by a range of disorders whose symptoms can be confused with Bell's palsy, including Guillain-Barré syndrome, herpes zoster infection, Lyme disease and HIV infection. In addition, a pattern of facial weakness or paralysis involving the forehead and all muscles of facial expression can be caused by a central lesion, such as a stroke, that involves the ipsilateral facial nerve nucleus or facial nerve tract in the pons.

The diagnosis of Bell's palsy is based on the criteria of facial paralysis with or without loss of taste on the anterior two-thirds of the tongue, with acute onset (within 1-2 days) and a progressive course. In the acute setting, patients with a typical Bell's palsy do not require imaging. Severity of Bell's Palsy can be graded using the House-Brackmann system (listed below). Imaging of the brain, temporal bone, and parotid gland contrast CT or gadolinium-enhanced MRI is warranted if the physical signs are atypical, there is no improvement in four months, or if the progression of the symptoms are over 3 weeks. Serologic testing for Lyme disease is recommended for adults and children with acute-onset facial palsy when there is the possibility of exposure in areas where Lyme disease is prevalent.

For a list of educational lectures, grand rounds, workshops, and didactics please visit

<http://www.BrowardER.com>

and click on the "Conference" link. All are welcome to attend !

House-Brackmann Grading System for Bell’s Palsy

Grade	Description	Characteristics
I	Normal	Normal Facial function in all areas
II	Mild dysfunction	Slight weakness noticeable on close inspection; may have slight synkinesis
III	Moderate dysfunction	Obvious, but not disfiguring, difference between 2 sides; noticeable, but not severe, synkinesis contracture, or hemifacial spasm; complete eye closure with effort
IV	Moderately severe dysfunction	Obvious weakness or disfiguring asymmetry; normal symmetry and tone at rest; incomplete eye closure
V	Severe dysfunction	Only barely perceptible motion; asymmetry at rest
VI	Total paralysis	No movement

(via www. Medscape.com)

The prognosis of Bell's palsy is related to the severity of the symptoms. The House-Brackmann grading system is used as a clinical indicator of severity and in the long term, is also used as an objective record of progress. On this scale, grades I and II have good outcomes, grades III and IV characterize moderate dysfunction, and grades V and VI portend a poor result.

Treatment

Patient’s with true Bell palsy generally have an excellent prognosis, and since spontaneous recovery is rather common, treatment of Bell palsy remains controversial. The goals of treatment are to improve facial nerve function and reduce neuronal damage.

The mainstay of pharmacologic therapy in Bell's palsy is early short-term oral glucocorticoid treatment. Treatment should be started within 4 days of onset of paralysis. The suspicion that Bell's palsy is caused by herpes simplex virus in most patients led to trials of antiviral therapy. Compared with placebo, these trials found no benefit for antiviral therapy alone. However, the data are conflicting with regard to the possibility of additional benefit when antiviral agents are administered with glucocorticoids. Thus, it is generally recommended that patient’s with newly diagnosed Bell’s palsy (within 4 days of symptoms) are started on glucocorticoid therapy and an antiviral agent be added as well, especially if the House-Brackmann score is IV or greater.

Eye care is essential for treatment of Bell’s palsy. Since patients may not be able to close the eye fully, the it is at risk for drying, corneal abrasion, and corneal ulcers. In most patients, topical ocular lubrication is sufficient to prevent the complications of corneal exposure. Liquid or gel formulations of artificial tears can be applied every hour while the patient is awake, and ointment formulations can be used at night. If corneal erosions are present, occluding the eyelids by using tape or by applying a patch for 1 or 2 days may help to heal the erosions.

References:

Jeffrey D. Tiemstra MD, *Bell’s Palsy*, *Am Fam Physician*. 2007 Oct 1;76(7):997-1002.
 Medscape: Bell’s Palsy
 UpToDate: *Bell’s Palsy; Pathogenesis, Clinical Features and Diagnosis, Prognosis and Treatment*

ABOUT THE AUTHOR:

This month’s case was written by Rochelle Samarasekera. Rochelle is a 4th year medical student from NSU-COM. She did her emergency medicine rotation at BHMC in April 2016. Rochelle plans on pursuing a career in Family Medicine

