Bell's Palsy

Patrick G Meloy, MD*, Todd A Taylor, MD*, Chris Dudley, MD* and Michelle D Lall, MD*

*Emory University School of Medicine, Department of Emergency Medicine, Atlanta, GA

Correspondence should be addressed to Patrick G Meloy, MD at patrickmeloy@emory.edu

Submitted: January 26, 2018; Accepted: March 14, 2018; Electronically Published: April 15, 2018; https://doi.org/10.21980/J89G9M

ABSTRACT:

Audience: Emergency medicine residents and medical students on emergency medicine rotations.

Introduction: This oral board review case tests the resident's ability to differentiate between benign and life-threatening causes of acute facial paralysis. Bell's Palsy is a peripheral facial nerve palsy with a prevalence of 15-40 per 100,000.[1] The diagnosis is mainly clinical, based on focused history and thorough neurologic examination, particularly of the cranial nerves. The etiology is unknown; viral reactivation is suspected to be the culprit in the majority of cases and is the target of current therapy, although alternate etiologies of peripheral facial paralysis should be ruled out. The primary objective of the emergency physician is to rule out life-threatening and function-threatening etiologies of facial nerve paralysis (eg, cerebrovascular accident), initiate conservative management, and coordinate appropriate follow-up.

Objectives: At the end of this oral boards session, examinees will: 1) Demonstrate ability to perform a thorough neurologic examination including full cranial nerve exam, National Institutes of Health (NIH) stroke scale assessment, strength and sensation and reflex testing, pronator drift, speech repetition. 2) Differentiate between Bell's Palsy and acute stroke with facial paralysis. 3) List appropriate laboratory testing for a case of peripheral facial nerve paralysis (basic metabolic panel [BMP]; complete blood count [CBC]; coagulation studies if considering lumbar puncture; human immunodeficiency virus (HIV) test if high-risk by history, or if bilateral; Lyme titer if in endemic area, or if bilateral). 4) Select appropriate treatments (steroids, eye lubricant and patch, PCP referral) for peripheral facial nerve paralysis.

Methods: Oral boards case

Topics: Paralysis, Bell's palsy, facial nerve paralysis, Lyme disease, viral syndrome, neurologic emergency.

USER GUIDE

List of Resources:

Learner Audience:
Medical students, interns, junior residents, senior residents

Time Required for Implementation:
Case: 15 minutes
Debriefing: 10 minutes

Recommended Number of Learners per Instructor:
1

Topics:
Paralysis, Bell's palsy, facial nerve paralysis, Lyme disease, viral syndrome, neurologic emergency.

Objectives:
By the end of this oral board session, examinees will:

1. Demonstrate ability to perform a thorough neurologic examination including full cranial nerve exam, NIH stroke scale assessment, strength and sensation and reflex testing, pronator drift, speech repetition
2. Differentiate between Bell's Palsy and acute stroke with facial paralysis
3. List appropriate laboratory testing for a case of peripheral facial nerve paralysis (BMP, CBC; PT/INR if considering LP; HIV if high-risk by history, or if bilateral; Lyme titer if in endemic area, or if bilateral)
4. Select appropriate treatments (steroids, eye lubricant and patch, primary care doctor referral) for peripheral facial nerve paralysis

Linked objectives and methods:
For this case, the learner must demonstrate the ability to synthesize the appropriate history and physical exam findings with knowledge of anatomy to ensure the correct diagnosis. The oral board format allows faculty to observe the learner in real-time to ensure that critical information is gained in order to ensure the learner can differentiate between Bell's Palsy and other life-threatening causes of facial paralysis. Debriefing will ensure that the learner can assimilate all of the sources data into a coherent picture to deduce the correct diagnosis.

Recommended pre-reading for instructor:

- Any book chapter or article on Bell's Palsy.

Results and tips for successful implementation:
This case is best used for oral board testing and assessment. It can be part of a single-case or can be implemented into a triple-case setting. It is challenging for interns and junior residents due to the age and comorbidities of the patient and is appropriate for testing high-level differential diagnoses and appropriate medical decision-making skills. The case was previously trialed with 60 learners as a single-case. Many junior learners felt it difficult to exclude CVA (stroke) during their initial examination and attempted to admit the patient, and also obtained a non-contrast head-CT. The challenge for junior learners to is to allow a more elderly patient to have a relatively benign case of facial paralysis. The case was previously written to include a speech difficulty, but this also proved to confound the diagnosis even for senior residents and was subsequently changed.

References/suggestions for further reading:

1. Garro A, Nigrovic, L. Managing peripheral facial palsy. [Published online ahead of print October 27,2017]. *Ann Emerg Med*. doi: 10.1016/j.annemergmed.2017.08.039
2. Bunney EB, Gallagher EJ. Peripheral nerve disorders. In: Marx J, Hockberger R, Walls R, Adams J, Rosen P, eds. *Rosen's Emergency Medicine*. 7th ed. Philadelphia, PA: Mosby/Elsevier; 2010:1398-1410.
3. Seupal T. #14: You can ring my bell (steroids and antivirals for Bell's palsy). The Skeptics Guide to EM. http://thesgem.com/2012/12/podcast-14-you-can-ring-my-bell/. December 9, 2012. Accessed March 15, 2018.
4. National Institute of Health. National Institute of Health Stroke Scale. https://www.ninds.nih.gov/sites/default/files/NIH_Stroke_Scale.pdf. Updated October 1, 2013. Accessed March 15, 2018.
5. National Stroke Association. NIH Stroke Scale. http://www.stroke.org/we-can-help/healthcare-professionals/improve-your-skills/tools-training-and-resources/training/nih. Published September 11, 2014. Accessed March 15, 2018.
6. Halaweh T, King A. Facial nerve (Bell) palsy. In: Sherman S, Cico S, Nordquist E, Ross C, Wang E, eds. *Atlas of Clinical Emergency Medicine.* 1st ed. Philadelphia, PA: Wolters Kluwer; 2016:33.
7. Westafer L, Faust J. Bell's palsy and burns. FOAMcast. http://foamcast.org/2016/10/19/bells-palsy-and-burns/. Published October 19, 2016. Accessed March 15, 2018.
8. Zandian A, Osiro S, Hudson R, Ali I, Matusz EP, Tubbs SR, Loukas M. The neurologist's dilemma: a comprehensive

clinical review of Bell's palsy with emphasis on current management trends. *Med Sci Monit.* 2014;20:83-90. doi: 10.12659.MSM.889876
9. Benecke JE Jr. Facial paralysis. *Otolaryngol Clin North Am*. 2002;35(2):357-365.
10. Salinas RA, Alvarez G, Ferreira J. Corticosteroids for Bell's palsy (idiopathic facial paralysis). *Cochrane Database Syst Rev*. 2010;(3):CD001942. doi: 10.1002/14651858.CD001942.pub4
11. Lockhart P, Daly F, Pitkethly M, Comerford N, Sullivan F. Antiviral treatment for Bell's palsy (idiopathic facial paralysis). *Cochrane Database Syst Rev*. 2009;(4):CD001869. doi: 10.1002/14651858.CD001869
12. Engström M, Berg T, Stjernquist-Desatnik A, Axelsson S, Pitkäranta A, Hultcrantz M, et al. Prednisolone and valaciclovir in Bell's palsy: a randomised, double-blind, placebo-controlled, multicentre trial. *Lancet Neurol.* 2008;7(11):993-1000. doi: 10.1016/S1474-4422(08)70221-7
13. Sullivan FM, Swan IR, Donnan PT, Morrison JM, Smith BH, McKinstry B, et al. Early treatment with prednisolone or acyclovir in Bell's palsy. *N Engl J Med*. 2007;357(16):1598-1607. doi: 10.1056/NEJMoa072006
14. Riga M, Kefalidis G, Danielides V. The Role of diabetes mellitus in the clinical presentation and prognosis of Bell palsy. *J Am Board Fam Med*. 2012;25(6):819-826. doi: 10.3122/jabfm.2012.06.120084
15. Serrano P, Hernández N, Arroyo JA, de Llobet JM. Bilateral Bell palsy and acute HIV type 1 infection: report of 2 cases and review. *Clin Infect Dis*. 2007;44(6):e57-e61. doi: 10.1086/511876
16. Saleh C, Patsi O, Mataigne F, Beyenburga S. Peripheral (seventh) nerve palsy and multiple sclerosis: a diagnostic dilemma - a case report. *Case Rep Neurol*. 2016;8(1):27-33. doi: 10.1159/000443681

FOR EXAMINER ONLY

Oral Case Summary

Diagnosis: Bell's Palsy

Case Summary: This is a 63-year-old male patient who started experiencing facial droop and headache approximately one day prior to arrival. His headache is left-sided and has gradually worsened. The headache is located behind the left ear and is associated with facial droop on the left-side of his face, difficulty while eating and drinking, and he has noted pain when hearing loud noises.

Order of Case: The examinee should initially be concerned for possible cerebrovascular accident (CVA) in an older male patient who has CVA-risk factors. Initial evaluation should include point of care glucose and NIH stroke evaluation. Though unable to wrinkle his forehead, the patient should be evaluated for possible stroke prior to making the diagnosis of Bell's Palsy. Though Bell's Palsy is a clinical diagnosis, this patient is elderly and has risk factors for more insidious causes, and should undergo laboratory studies, electrocardiogram (ECG), and ancillary testing. The examinee should discharge the patient home with a prescription for steroid coverage and antivirals, as well as appropriate counseling.

Disposition: Discharge patient home with appropriate prescriptions.

Critical Actions:

1. Complete neurologic examination, including National Institutes of Health Stroke Score (NIHSS)
2. Point-of-care glucose check
3. Secondary lab testing (including Lyme disease titer)
4. Appropriate aftercare instructions, which include protection for the affected eye
5. Discharge home

FOR EXAMINER ONLY

Historical Information

Chief Complaint: Headache

History of present illness: This is a 63-year-old male patient who is presenting with a headache, via EMS. He states that it started one day prior to arrival and has gradually worsened. It is dull, achy, and is located on the left side of his head. He describes it more as located on the scalp and temple, and is radiating inward. It is gradually worsening. He states he attempted to take a dose of acetaminophen while at work and noticed that some water dripped out of the side of his mouth. He then decided to call 911 to obtain further care.

Past Medical history: Hypertension & hyperlipidemia
Past Surgical history: Cholecystectomy
Patients Medications: Losartan, hydrochlorothiazide and simvastatin
Allergies: Penicillin
Social history:

- Smoking: denies
- Alcohol use: occasional
- Drug use: denies

Family history: Hypertension and coronary artery disease

FOR EXAMINER ONLY

Physical Exam Information

Vitals: Heart rate (HR) 77 Blood pressure (BP) 163/88 Respiratory rate (RR) 14
Temperature (T) 99.2°F Oxygen saturation (O_2Sat) 98%

General appearance: Well-nourished, well-developed, in mild distress secondary to anxiety over his condition

Primary survey:

- **Airway:** Intact, speaking in complete sentences
- **Breathing:** Breath sounds clear bilaterally
- **Circulation:** Intact peripheral pulses, vitals as above

Physical examination:

- **General appearance:** Well-nourished, well-developed male in mild distress secondary to anxiety over his current condition
- **HEENT:** If not normal, can give specific information below:
    - **Head:** within normal limits
    - **Eyes:** (Do not provide unless examinee asks about eye exam) Extraocular muscles intact, pupils are equal and reactive to light bilaterally, there is lid-lag (lagophthalmos) on the left compared to the right, conjunctiva are normal bilaterally
    - **Ears:** (Do not provide unless examinee asks about ear exam) Bilateral tympanic membranes are intact and normal, with no visible rash or lesions
    - **Nose:** within normal limits
    - **Throat:** within normal limits
- **Neck:** within normal limits, no carotid bruits (if examinee asks)
- **Chest:** within normal limits (including respiratory exam)
- **Cardiovascular:** Regular rate and rhythm, normal S1 and S2, no murmurs, gallops or rubs
- **Abdominal/GI:** within normal limits
- **Genitourinary:** within normal limits
- **Rectal:** should be deferred, but if performed, within normal limits with guaiac negative stool
- **Extremities:** within normal limits
- **Back:** within normal limits

FOR EXAMINER ONLY

- **Neurologic:** (Do not provide unless examinee asks about component of neurologic exam) extraocular movements intact, pupils equally round and reactive to light, left-sided facial paralysis with inability to close the left eye, inability to wrinkle the left forehead, loss of nasolabial fold on the left, perioral drooping on the left, no slurring of speech, uvula in the midline, tongue protrudes in the midline, able to shrug both shoulders, normal 5/5 strength in all four extremities, normal sensation to distal extremities, diminished sensation to left forehead and cheek, normal gait, no ataxia, normal finger-to-nose testing and heel-to-shin testing bilaterally, awake and alert x 3, with no other focal neurologic deficits noted. If calculated by the examinee, NIH Stroke Scale = 4 (3 points for facial paralysis, 1 point for mild sensory deficit).
- **Skin:** (Examinee should ask) No rashes or lesions noted to the face, external ears, nose or oral cavity
- **Lymph:** within normal limits
- **Psych:** within normal limits

FOR EXAMINER ONLY

Critical Actions and Cueing Guidelines

1. **Assessment of a complete neurologic examination should be performed. The patient has clear and focal deficits, and his age and medical profile is not completely consistent with a benign cause. An NIH Stroke Scale should be calculated.**
    a. Cueing Guideline (if applicable):
    Examiner may say, "The nurse-trainee caring for the patient is curious how you determine the extent of potential injury from your physical exam."

2. **Point-of-care blood glucose testing should be completed in all patients with stroke-like symptoms.**
    a. Cueing Guideline (if applicable):
    The patient may state, "Do you really need any more blood testing? The paramedics pricked my finger before we got here."

3. **Secondary lab testing is appropriate, including Lyme disease titer. Examinee should consider human immunodeficiency virus (HIV) testing and ask about high-risk behaviors. Coagulation panel is not required unless examinee attempts to perform lumbar puncture.**
    a. Cueing Guideline (if applicable):
    Examiner may say, "The patient is asking about the diagnosis and how he got the disease. He wants to know if there is any way to prevent it from happening again."

4. **Appropriate ophthalmologic care should be discussed prior to discharge. The patient should be prescribed artificial tears and an eye patch should be provided for comfort and prophylaxis.**
    a. Cueing Guideline (if applicable):
    Examiner may state, "The patient is asking how he will be able to sleep with his eye remaining open."

5. **The patient should be discharged to home when emergent diagnoses have been ruled-out.**
    a. Cueing Guideline (if applicable):
    If admission is attempted, the examiner may mimic the internal medicine team and state, "What exactly are we admitting for and what testing or treatment do

you want accomplished?" If the examinee attempts consultation or admission to neurology they should be unavailable.

ORAL BOARDS ASSESSMENT

Bell's Palsy

Learner: _____

Critical Actions:

☐ Complete neurologic examination, including NIHSS (National Institutes of Health Stroke Scale)
☐ Point-of-care glucose testing
☐ Secondary lab testing (including Lyme disease titer)
☐ Appropriate aftercare instructions, which include protection for the affected eye
☐ Discharge home

Summative and formative comments:

Milestone assessment:

	Milestone	Did not achieve level 1	Level 1	Level 2	Level 3
1	**Emergency Stabilization (PC1)**	☐ Did not achieve Level 1	☐ Recognizes abnormal vital signs	☐ Recognizes an unstable patient, requiring intervention Performs primary assessment Discerns data to formulate a diagnostic impression/plan	☐ Manages and prioritizes critical actions in a critically ill patient Reassesses after implementing a stabilizing intervention
2	**Performance of focused history and physical (PC2)**	☐ Did not achieve Level 1	☐ Performs a reliable, comprehensive history and physical exam	☐ Performs and communicates a focused history and physical exam based on chief complaint and urgent issues	☐ Prioritizes essential components of history and physical exam given dynamic circumstances

ORAL BOARDS ASSESSMENT

Bell's Palsy

Learner: _____

	Milestone	Did not achieve level 1	Level 1	Level 2	Level 3
3	**Diagnostic studies (PC3)**	☐ Did not achieve Level 1	☐ Determines the necessity of diagnostic studies	☐ Orders appropriate diagnostic studies Performs appropriate bedside diagnostic studies/procedures	☐ Prioritizes essential testing Interprets results of diagnostic studies Considers risks, benefits, contraindications, and alternatives to a diagnostic study or procedure
4	**Diagnosis (PC4)**	☐ Did not achieve Level 1	☐ Considers a list of potential diagnoses	☐ Considers an appropriate list of potential diagnosis May or may not make correct diagnosis	☐ Makes the appropriate diagnosis Considers other potential diagnoses, avoiding premature closure
5	**Pharmacotherapy (PC5)**	☐ Did not achieve Level 1	☐ Asks patient for drug allergies	☐ Selects an appropriate medication for therapeutic intervention, considering potential adverse effects	☐ Selects the most appropriate medication(s) and understands mechanism of action, effect, and potential side effects Considers and recognizes drug-drug interactions
6	**Observation and reassessment (PC6)**	☐ Did not achieve Level 1	☐ Reevaluates patient at least one time during the case	☐ Reevaluates patient after most therapeutic interventions	☐ Consistently evaluates the effectiveness of therapies at appropriate intervals
7	**Disposition (PC7)**	☐ Did not achieve Level 1	☐ Appropriately selects whether to admit or discharge the patient	☐ Appropriately selects whether to admit or discharge Involves the expertise of some of the appropriate specialists	☐ Educates the patient appropriately about their disposition Assigns patient to an appropriate level of care (ICU/Tele/Floor) Involves expertise of all appropriate specialists

Standardized assessment form for oral boards cases. JETem © Developed by: Megan Osborn, MD, MHPE; Shannon Tooney, MD; Alisa Wray, MD
Meloy P G. Bell's Palsy. JETem 2018. 3(2):O1-25. https://doi.org/10.21980/J89G9M

ORAL BOARDS ASSESSMENT

Bell's Palsy

Learner: _____

	Milestone	Did not achieve level 1	Level 1	Level 2	Level 3
22	**Patient centered communication (ICS1)**	☐ **Did not achieve level 1**	☐ **Establishes rapport and demonstrates empathy to patient (and family)** **Listens effectively**	☐ **Elicits patient's reason for seeking health care**	☐ **Manages patient expectations in a manner that minimizes potential for stress, conflict, and misunderstanding.**
23	**Team management (ICS2)**	☐ **Did not achieve level 1**	☐ **Recognizes other members of the patient care team during case (nurse, techs)**	☐ **Communicates pertinent information to other healthcare colleagues**	☐ **Communicates a clear, succinct, and appropriate handoff with specialists and other colleagues** **Communicates effectively with ancillary staff**

Stimulus Inventory

#1 Patient Information Form

#2 Head computed tomography (CT) image

#3 Complete blood count (CBC)

#4 Basic metabolic panel (BMP)

#5 Urinalysis

#6 Chest radiograph (CXR)

#7 Troponin

#8 Electrocardiogram tracing

#9 Lyme disease titer

Stimulus #1

Patient Information

Patient's Name:	**Mark Smith**
Age:	**63**
Gender:	**Male**
Chief Complaint:	**Headache**
Person Providing History:	**Patient**

Vital Signs:

Temp:	**99.2 (37.3)**
BP:	**163/88**
P:	**77**
RR:	**14**
Pulse Ox:	**98% (room-air)**

Stimulus #2

Head CT

Author's own image

Stimulus #3

Complete Blood Count

White blood count (WBC)	**12 x1000/mm3**
Hemoglobin (Hgb)	**13 g/dL**
Hematocrit (HCT)	**40.0%**
Platelets	**252 x1000/mm3**

Differential

Neutrophils	**54%**
Lymphocytes	**22%**
Monocytes	**18%**
Eosinophils	**3%**
Bands	**3%**

Stimulus #4

Basic Metabolic Panel

Sodium	**142 mEq/L**
Potassium	**4.4 mEq/L**
Chloride	**115 mEq/L**
Carbon Dioxide (CO_2)	**25 mEq/L**
Blood Urea Nitrogen (BUN)	**25 mg/dL**
Creatine	**1.0 mg/dL**
Glucose	**121**

Stimulus #5

Urinalysis

Appearance	**Clear**
Color	**Yellow**
Glucose	**Negative**
Ketones	**Negative**
Sp Gravity	**1.0**
Blood	**Negative**
pH	**6.5**
Protein	**Negative**
Nitrite	**Negative**
Leukocyte	**Negative**
WBC	**0/high powered field (HPF)**
Red blood count (RBC)	**0/HPF**
Squamous Cells	**1-2/HPF**
Bacteria	**0/HPF**

Stimulus #6

Chest X-ray

Author's own image

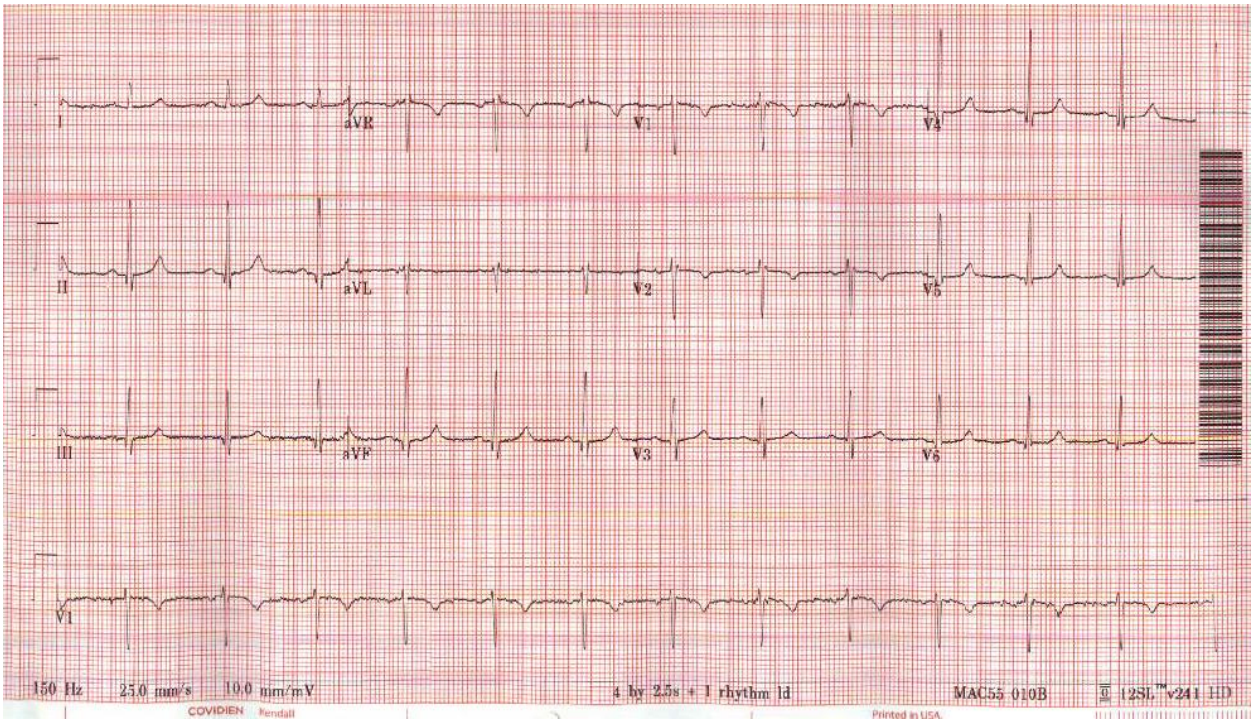
Stimulus #7

Troponin Level

Troponin Level	**< 0.017 ng/dL**

Stimulus #8

Electrocardiogram



Author's own image

Stimulus #9

Lyme Disease Titer

Negative

DEBRIEFING AND EVALUATION PEARLS

Bell's Palsy

What is Bell's Palsy?

Acute onset unilateral muscle weakness of the face secondary to paralysis of the facial nerve (cranial nerve VII).

- Degree of muscle weakness may be mild to severe.
- Symptoms present within several days and most resolve within 3 weeks but full recovery may take up to 9 months.
- Involves the forehead musculature.
- Paralysis may be isolated to the forehead, eyelid or mouth.
- Bell's phenomenon: the upward movement of the eye on attempted closure of the lid due to weakness of the orbicularis oculi. This is pathognomonic for Bell's Palsy.
- The exact cause is unknown so there is no prevention and no cure. HSV - herpetic reactivation is the most strongly suspected cause. VSV, Lyme Disease and HIV are other causes.
- 60% of patients report an antecedent viral illness.
- Up to 30% of patients will have residual permanent symptoms - facial weakness, involuntary movements, and/or lacrimal issues.
- Recurrence rate is 12%.

What conditions mimic Bell's Palsy?

- Acute stroke may present as unilateral facial weakness sparing the forehead. The forehead is spared because of dual bilateral cortical innervation of the frontalis muscle.
- Todd's paralysis is focal weakness in an area of the body following a seizure and may involve the facial musculature.
- CNS (central nervous system) neoplasm may present as progressive unilateral facial paralysis that has a prolonged course with frequent relapses and no recovery.
- HIV infection has been associated with both unilateral and bilateral Bell's Palsy, and there are numerous reports of Bell's Palsy as the presenting symptom in patients with undiagnosed HIV infection. HIV testing should be considered in patients presenting with Bell's Palsy.
- Multiple Sclerosis (MS) lesions are confined to the central nervous system. In patients with MS, Bell's Palsy is usually caused by a central lesion at the level of the ipsilateral facial nucleus or facial nerve at the pons.

DEBRIEFING AND EVALUATION PEARLS

- Guillain-Barre Syndrome is a rare disorder in which there is autoimmune mediated demyelination of the peripheral nerves resulting in rapid-onset muscle weakness. It has been associated with bilateral and unilateral Bell's Palsy and is a relatively rare presentation.
- Ramsay-Hunt Syndrome (herpes zoster oticus) is a shingles outbreak involving the facial nerve and is associated with vesicular skin lesions and often hearing loss.
- Lyme disease is a tick-borne infectious disease caused by the bacterium borrelia burgdorferi. Erythema migrans is the typical skin lesion often seen about one week after the tick bite, but up to 50% of patients never develop a rash so their diagnosis may be delayed and they present in later stages of the disease. Neurologic complications occur in the second stage and may include paralysis of the facial muscles. Lyme disease is endemic in the Northeast, Upper Midwest, and Pacific Northwest United States. Antibiotics are the treatment of choice for Lyme Disease, and doxycycline is the antibiotic of choice in adults.
- Sarcoidosis is a multisystem granulomatous disease of unknown etiology. It may involve any portion of the nervous system - neurosarcoidosis. The cranial nerves are most commonly affected, and peripheral facial nerve palsy, often bilateral, is the most common neurologic manifestation of sarcoidosis.
- Sjogren's Syndrome (SS) is an autoimmune disorder caused by lymphocytic infiltration of exocrine glands and can affect any organ system. SS generally involves the peripheral nervous system, but there are case reports of SS affecting the facial nerve.
- Diabetes mellitus is associated with a higher incidence of Bell's Palsy. There is some evidence that diabetic patients have more severe Bell's Palsy at the time of diagnosis and that tight glycemic control may improve degree of resolution of symptoms. Additionally, one must exclude hypoglycemia as that can present as focal weakness.

What is the diagnostic work-up?

- Bell's Palsy is typically a diagnosis of exclusion.
- Labs and diagnostic imaging are not routinely indicated for a clear-cut case of Bell's Palsy but may be indicated to rule out other diagnoses.
- Labs are indicated in those with recurrent symptoms and those with no symptom improvement after 3 weeks of therapy.
- Basic metabolic panel (BMP), complete blood count (CBC) and coagulation studies may be indicated if there is concern for acute stroke.
- Serologic Lyme titer testing should be performed in endemic areas.

DEBRIEFING AND EVALUATION PEARLS

- HIV testing should be considered in those presenting with either unilateral or bilateral Bell's Palsy.
- Computed tomography (CT) with contrast or magnetic resonance imaging (MRI) should be pursued if there is concern for neoplasm.

What is the management of Bell's Palsy?

- Because the exact cause of Bell's Palsy is often unknown, treatment is often focused around reducing inflammation around the facial nerve and preventing corneal complications.
- Ocular lubricating tears or ointment every 1-2 hours while awake and before bed. Eye patching or lid taping at night.
- Large randomized control trials of corticosteroid treatment have had mixed results. Some older trials showed that corticosteroids are no better than placebo, but newer trials and a recent Cochrane Review showed that corticosteroids improved facial nerve recovery at follow-up.
- Large randomized control trials have shown that antivirals have no effect in the resolution of Bell's Palsy.
- Surgical treatment is controversial but should be considered for refractory cases.

What is the appropriate follow-up plan?

- Primary care physician (PCP)
- Referral to neurology or otolaryngology should be made to rule out more serious conditions and monitor for improvement of symptoms. This referral can be made by the patient's PCP or from the Emergency Department.