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The Dizzy Patient

*Director:*
James Dorman, MD, FACP, FAAN

Pooja Dhir, MD

Josune N. Iglesias, MD, FACP

Suchita Kishore, MD, FACP

Sara Marin, MD

Kelly Stein, MD, Member

Octavio A. Vega, MD, Member
Examining The Dizzy Patient

James Dorman, MD FAAN FACP
Interim Chair, Neurology, Cook County Health
Assistant Professor of Neurological Sciences,
Rush University

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Disclosure of Financial Relationships

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Faculty

• Josune Iglesias, MD FACP
• Pooja Dhir, MD
• Kelly Stein, MD
• Suchita Kishore, MD
• Sara Marin, MD
• Octavio Vega, MD

Objectives

• Differentiate Central from Peripheral Nystagmus
• Perform Physical Exam Maneuvers to Differentiate Central from Peripheral Vertigo
• Treat BPPV with the Epley Maneuver
History: Dizzy

- Lightheaded/Presyncope
- Dysequilibrium
- Vertigo (sensation of movement)
- Vague/Dissociative symptoms

History

- Better dx specificity when don’t just rely on pt symptom description…
- Timing (onset, frequency, duration)
- Triggers
- Associated Symptoms
Physical Examination

- General Medical Exam
- General Neurologic Exam
- Neuro-otologic Exam

Orthostatic Pulse and BP if suggested by history
External ear exam, otoscopy
Differentiate CNS from PNS by “the company they keep:
- CNS: bulbar sx (dysarthria, dysphagia), eye findings (diplopia, ptosis, gaze palsy), VF defect, limb ataxia, focal weakness/numbness
- Recall: ataxia does not equal cerebellar lesion! Describes a physical exam finding
Neuro exam High Yield

- Eye movements, Nystagmus
- Coordination of limbs
- Gait, stance
- Romberg
- Eyes closed tandem Romberg
Acute Vestibular Syndrome

- A sudden onset of continuous vertigo, lasting >24 hours, associated with nausea, head motion intolerance and imbalance
- Mostly peripheral, ~10% central causes
- HINTS test more sensitive than MRI
- HINTS: Head Impulse Test, Nystagmus and Test of Skew. (ALL 3 must point to peripheral cause to be confident not CNS etiology)

Head Impulse Test

*Figure 2* The head impulse test. The patient views a fixed tar-
Head Impulse Test

Gold, D. in NOVEL available at https://collections.lib.utah.edu/ark:/87278/s6x398q2

Central vs Peripheral Nystagmus

<table>
<thead>
<tr>
<th></th>
<th>Peripheral</th>
<th>Central</th>
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<tbody>
<tr>
<td>Features</td>
<td>Unidirectional</td>
<td>Gaze evoked</td>
</tr>
<tr>
<td>Effect of visual</td>
<td>Suppressed</td>
<td>Not suppressed</td>
</tr>
<tr>
<td>fixation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other neuro</td>
<td>Absent</td>
<td>Usually Present</td>
</tr>
<tr>
<td>signs&amp;symptoms</td>
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Effect of Visual Fixation

Penlight Cover Test
Skew deviation: schematic

https://www.enteducationswansea.org/acute-vestibular-syndrome

Skew deviation in Central AVS
Episodic Positional Dizziness

• BPPV
• Migrainous vertigo
• Central Causes (10%)
• Light Cupula Syndrome (rare)
History: BPPV

- Vertigo ppt by head movements (bend over, turn, roll over in bed etc)
- Last seconds to 1 minute
- No tinnitus, hearing loss
- Everyone says “dizzy all day”….need to tease this out.

Dix Hallpike

Dix Hallpike is Gold Standard Test for dx of BPPV.

Positive if both a) vertigo and b) triggered and transient nystagmus

Nystagmus of BPPV has a latency of 1-2 seconds before onset, and it fatigues.
Treatment of Posterior Canal BPPV: Canalith Repositioning maneuvers

- Epley
- Semont
- Semont-plus
- Half somersault
- Brandt-Daroff exercises* - not curative

Similar efficacy, both have self-maneuvers
Epley Maneuver

1. Patient is seated upright facing examiner, grasping examiner's forearms with both hands for stability.
2. Patient is then moved rapidly into supine position, with head extending past examining table, right ear downward.
3. Examiner moves to head of table, repositioning hands as shown.
4. Patient rolls onto left side while examiner rapidly rotates head until nose is angled toward floor. Position is held for 30 seconds.
5. Patient is quickly rotated to the left, dropping with right ear upward. Position is held for 30 seconds.

Modified Epley for Home Treatment (Left side symptomatic)

1. Turn your head 45° to the left, keeping your head on your shoulder. Hold for 30 seconds.
2. Turn your head 45° to the right, keeping your head on your shoulder. Hold for 30 seconds.
3. Turn your head 90° to the left, keeping your head on your shoulder. Hold for 30 seconds.
4. Turn your head 90° to the right, keeping your head on your shoulder. Hold for 30 seconds.
5. Sit up on the right side of the chair.
Semont plus

Left ear is the affected ear

60 seconds in each position for semont-plus, 30 for Epley

Semont plus shown superior to Epley in 1 recent Class II RCT
Videos of self-maneuvers

• https://jamanetwork.com/journals/jamaneurology/fullarticle/2806601
Special situations

- Vertigo and nystagmus triggered by Valsalva or pressure to external ear/tragus: Superior Semicircular Canal Dehiscence or Perilymphatic fistula
- Autophony/Conductive hyperacusis: pt hears own body sounds (voice, eye movements, stomach sounds) --> SCC Dehiscence
- Tullio Phenomenon: Vertigo ppt by loud sounds → SCC Dehiscence
Questions???