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DIFFERENTIAL DIAGNOSIS OF POSITIONAL VERTIGO (Case Study Approach)

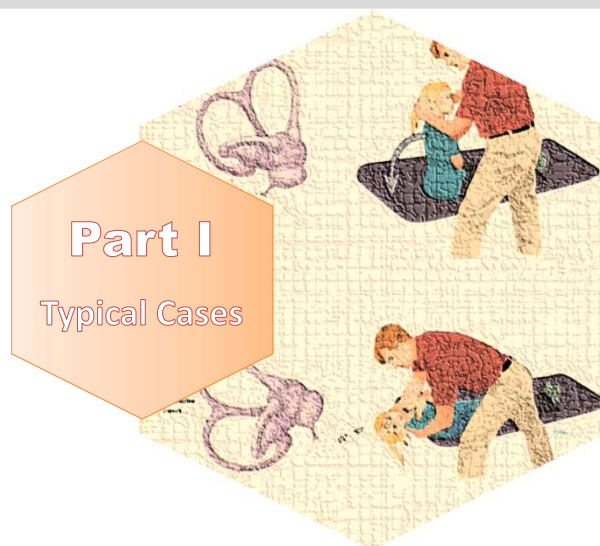


Outline



- **Part I (Typical Cases)**
 - 4 Cases
- **Part II (Comorbid Cases)**
 - 2 cases
- **Part III (Complicated Cases)**
 - 2 cases

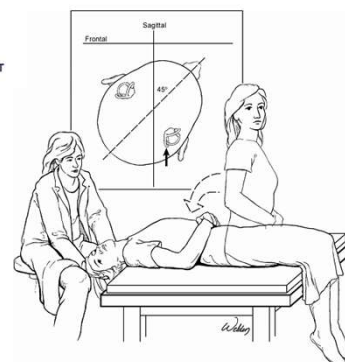
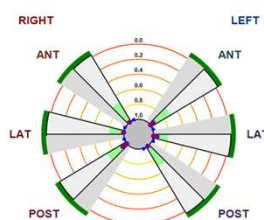




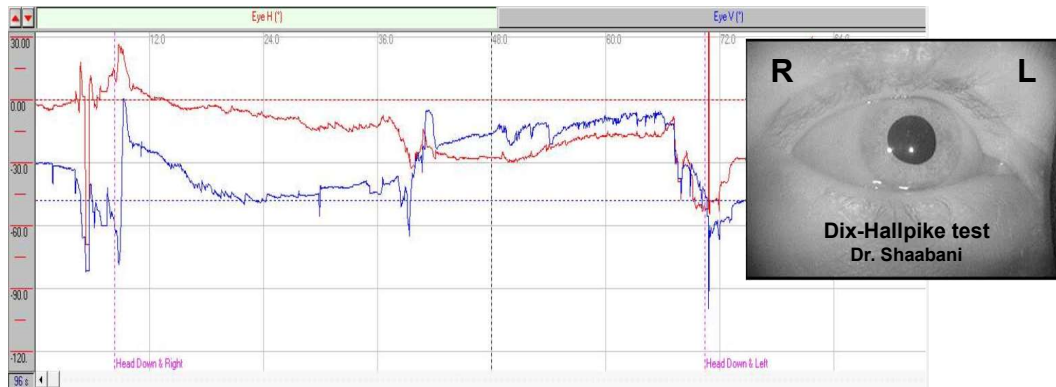
Case 1. History and Results

Female (62y)
Chief complaint: Positional vertigo
Duration: since 1 month ago

PTA: Bilateral Mild SNHL
Normal VHIT;
VNG: Normal Oculomotor; No SN
Dix-Hallpike maneuver? P



Case 1. Dix-Hallpike test



Case 2. History and Results



Male (60y)

Chief complaint: Positional vertigo

Duration: since 1 month ago

PTA: Bilateral Mild SNHL

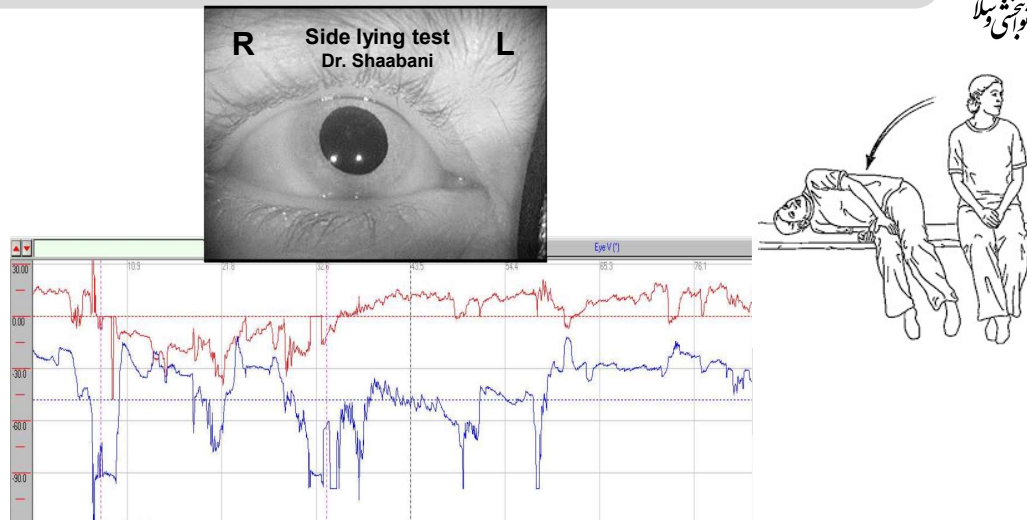
Normal VHIT;

VNG: Normal Oculomotor; No SN

Dix-Hallpike? N

So what?

Case 2. Side-lying test



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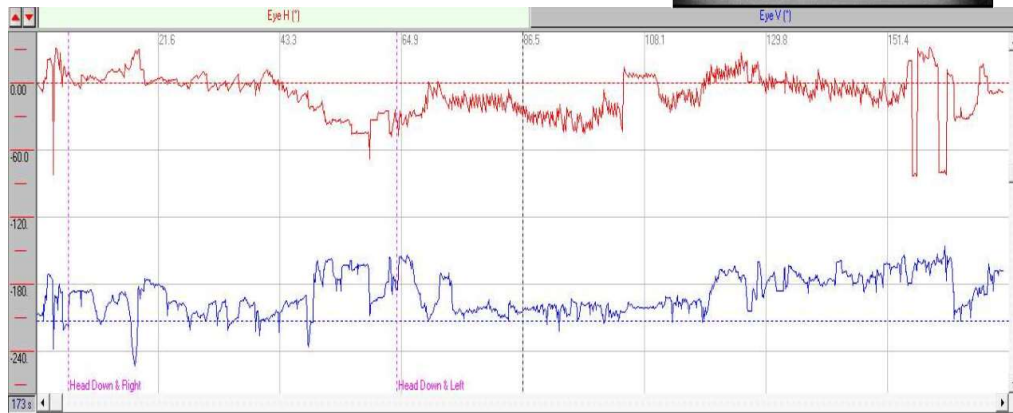
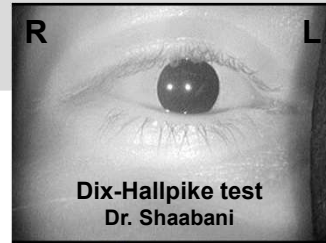
Case 3. History and Results

- Female (39y)
- Chief complaint: Positional vertigo
- Duration: the last 45 days
- Personal medical history:
 - Covid19 about 50 days ago
- Normal hearing, Normal IA, Normal VHIT
- VNG: Normal Oculomotor; No SN
- Dix-Hallpike?

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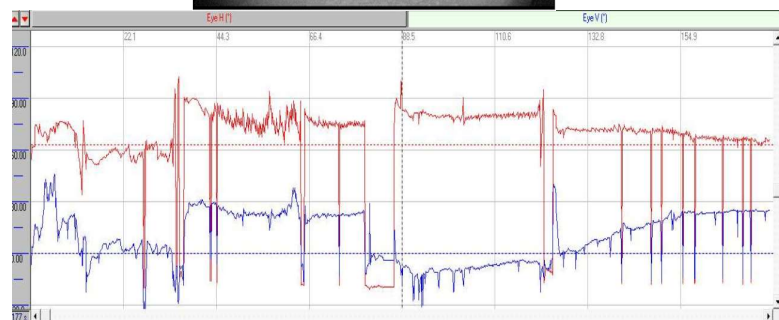
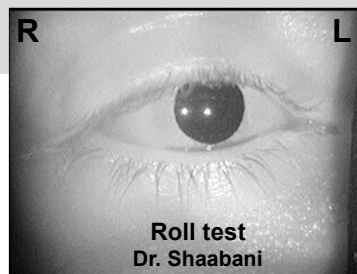
Case 3. Dix-Hallpike test



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Case 3. Roll Test



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Case 4. History and Results

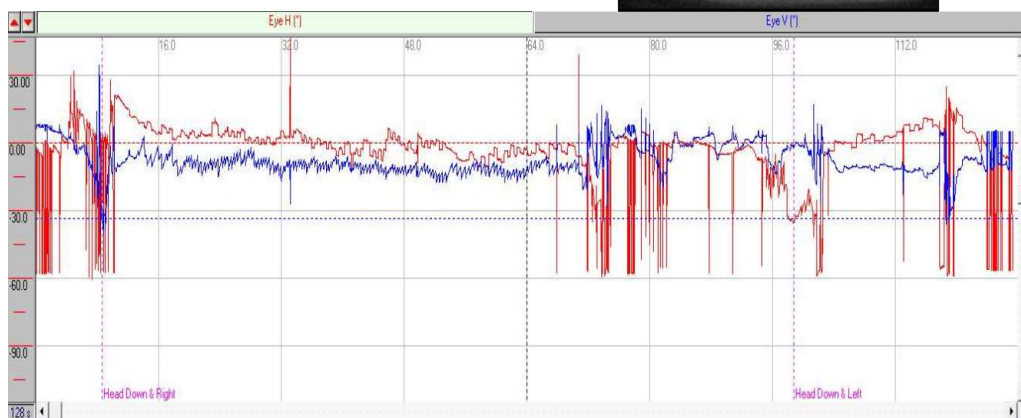
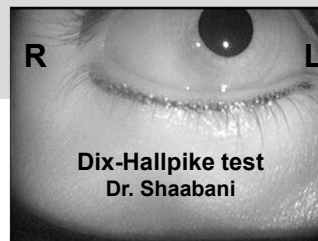


- Female (45y)
- Chief complaint: Positional vertigo
- Duration: the last 6 days
- Personal medical history:
 - Covid19 about 2 months ago
- Normal hearing, Normal IA
- Normal VHIT; Normal ECochG; Normal cVEMP
- VNG: Normal Oculomotor; No SN

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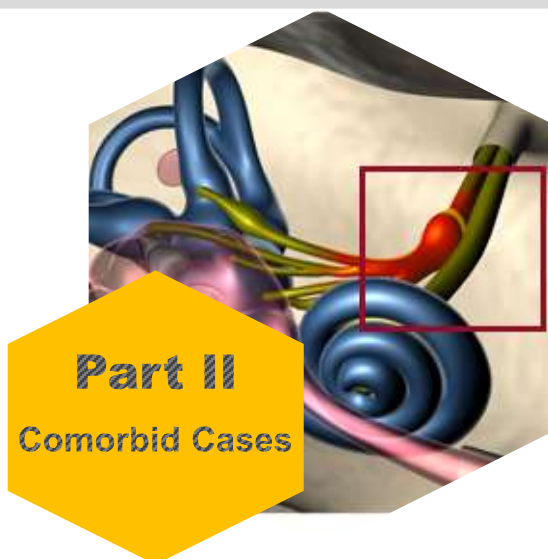
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Case 4. Dix-Hallpike test

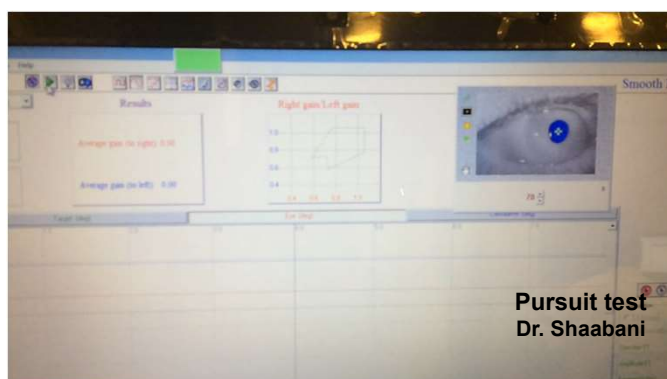


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Notice! (Saccadic pursuit)!

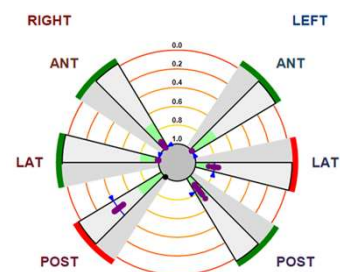
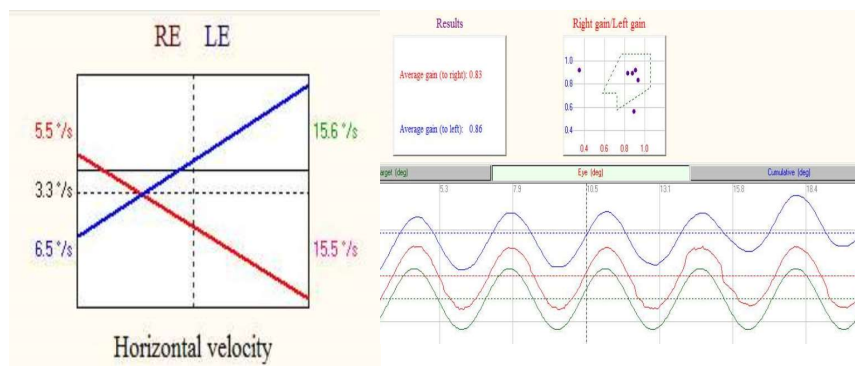


Case 5. History and Results



- Female (33y)
- Chief complaint:
 - Positional vertigo
 - **Unsteadiness during walking**
- Duration: The last 3 months
- Personal medical history:
 - one vertigo attack at 3 months ago
- Normal hearing, Normal IA
- Normal ECoG, Normal cVEMP
- Normal MRI
- Dix-Hallpike: Positive (left-side); So: Left P-BPPV

Case 5. Caloric, Pursuit, VHIT

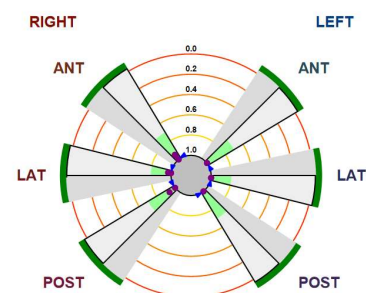
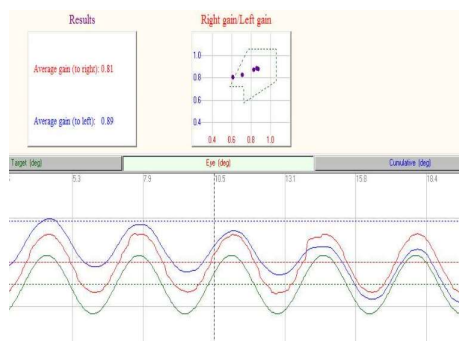
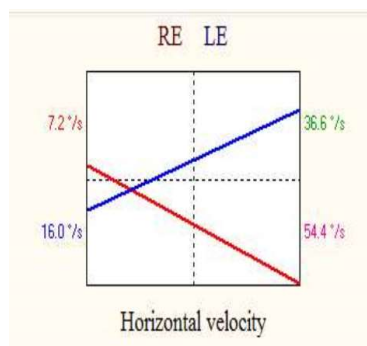


Case 6. History and Results



- Female (32y)
- Chief complaint:
 - Now: Positional vertigo
 - Before: Vertigo attacks with RE fullness
 - The last attack: 4 days ago
- Duration: The last year
- Status: Attacks; Inter-attacks
- Personal medical history: Hypothyroidism
- Normal hearing, Normal IA
- ECoG: Elevated SP/AP amplitude ratio (RE)
- VNG: Normal Oculomotor; slight left-beating SN
- Dix-Hallpike: Positive (right-side); So: Right P-BPPV

Clinical Points. **BPPV plus ELH** (Case 6. Caloric, Pursuit, and VHIT tests)

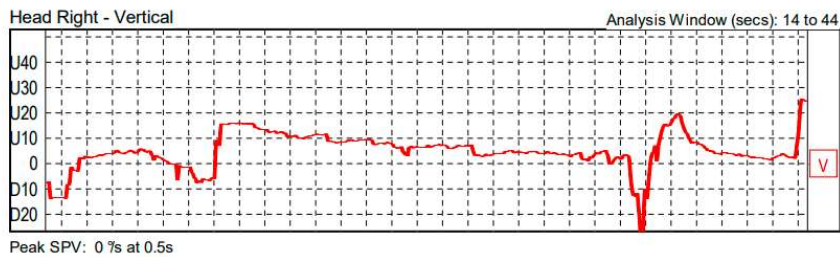
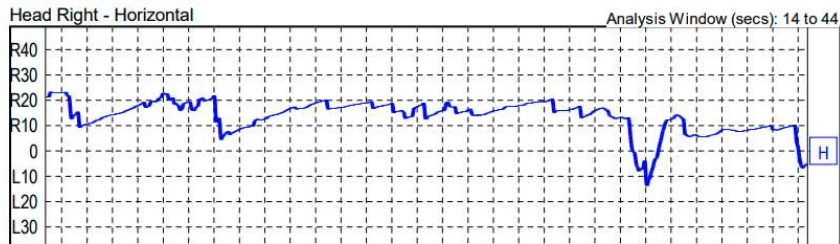




Case 7. History and Results

- Female (38y)
- Chief complaint:
 - Positional vertigo
 - Right-ear fullness, hearing loss, and tinnitus
 - Facial numbness (right-side)
- Duration: The last 6 months
- Status: Progressive
- Personal and Familial medical history: None
- Normal hearing
- **Abnormal AR and WRS on the right-side**

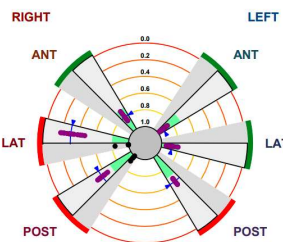
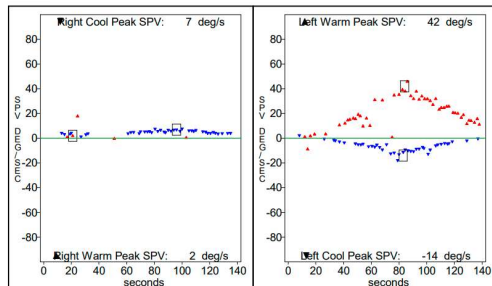
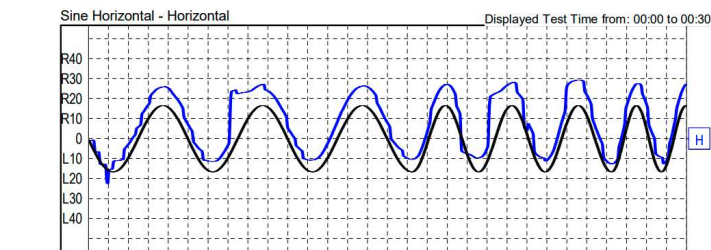
Case 7. Dix-Hallpike result: N! Only showed SN!



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Clinical Points. **Non-BPPV; VS** Case 7. Pursuit, Caloric, VHIT, and ...

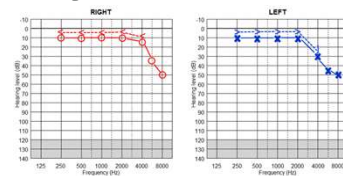


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Case 8. History and Results

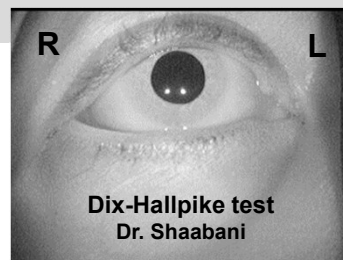
- Female (53y)
- Chief complaint:
 - Positional vertigo
 - Occipital headache
- Duration: The last 2 months
- Status: Nearly progressive
- Personal and Familial medical history: None
- Mild high-tone loss, Normal IA



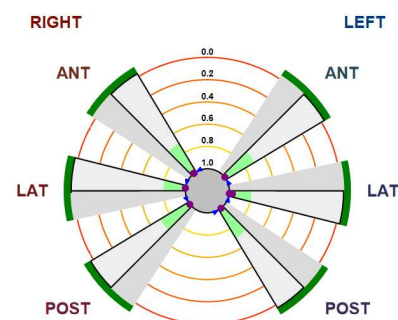
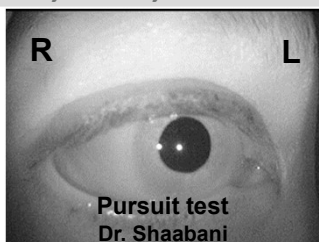
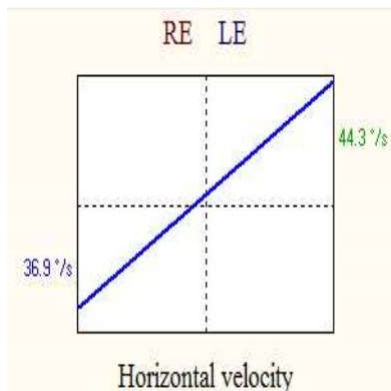
Case 8. Dix-Hallpike test

Negative: No BPPV

Pulsatile occipital headache



Clinical Points. **Non-BPPV; CM-I** Case 8. Pursuit, Caloric, VHIT, and ...



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Summary



- **Part I (Typical Cases)**
 - Posterior BPPV
 - Lateral BPPV
 - Anterior BPPV
- **Part II (Comorbid Cases)**
 - BPPV plus VN
 - BPPV plus ELH
- **Part III (Complicated Cases)**
 - Non-BPPV; VS
 - Non-BPPV; CM-I

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**Thanks
for your attention.**
