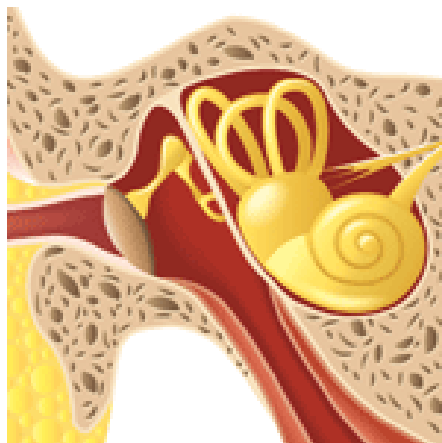


Vestibular Rehabilitation Mini Series

Session Two: Benign Paroxysmal Positional Vertigo

David Herdman BSc(Hons) MCSP



Instructions

1. **Be sure the patient does not have any cervical problems that preclude performing any of the following manoeuvres**
2. **These manoeuvres can be modified: Remember it is the position of the head in relation to gravity which is important, not the position of the head in relation to the neck**
3. **The movements are performed actively by the patient with the therapist facilitating the movement, not forcing it**
4. **Theses manoeuvres should only be performed by competent health professionals who have received appropriate training and supervision**

Dix-Hallpike Test

Indication: Position testing for posterior and anterior canal BPPV

Caution: You must be sure the patient does not have any cervical problems that preclude performing any of the following manoeuvre

Instructions:



1. The patient sits on the examination plinth with the head turned 45 degrees horizontally towards the side being tested.



2. The patient is then brought quickly into lying with the head hanging over the edge of the examination table with 20 degrees extension, maintaining 45 degrees head rotation. The therapist should support the patients head in this position (not shown in picture). In this position the therapist should observe for any signs of vertigo and direction of nystagmus for at least 30 seconds. The patient is then brought back into position 1 and the therapist should again observe for any nystagmus.

**This picture shows the Dix-Hallpike test for the right side.*

Side-lying Test

Indication: Position testing for posterior and anterior canal BPPV

Instructions:



1. The patient should sit on the edge of the bed. Turn the head 45 degrees horizontally away from the side to be test.



2. Next bring the patient down onto the side opposite to the direction the head is turned (in this example onto the right side). Once in this position the therapist should observe for any signs of vertigo and nystagmus for at least 30 seconds. Notice how the head is in the same position in relation to gravity as the Dix-Hallpike position. In this example, we are testing the right posterior canal.
3. Next bring the patient back up into sitting, and then follow the same procedure towards the other side.

Supine Roll Test

Indication: Position test for horizontal canal BPPV

Instructions:



1. Lay the patient supine with the head in 30 degrees flexion.



2. Turn the head 90 degrees towards one side and observe for any vertigo and nystagmus.



3. Return the head to neutral and allow any nystagmus to subside.



4. Finally move the head 90 degrees in the opposite direction and again observe for any vertigo and nystagmus

Epley Manoeuvre

Indication: Posterior (and anterior) canalithiasis BPPV

Instructions:



1. The patient should sit on the treatment table and the head should be turned 45 degrees horizontally towards the side to be treated.
2. The patient is then brought quickly into lying with the head extended 20 degrees off the edge of the plinth, maintaining the rotation. Note this is the same position as the Dix-Hallpike test.
3. The patient's head is then facilitated 90 degrees towards the opposite side, maintaining the extension at all times.
4. The patient is then asked to roll onto that side whilst the therapist facilitated the head moving in that direction another 90 degrees, tucking the chin into the chest and maintaining the head in the dependent position.
5. The patient then sits up, before bringing the head back into neutral. The therapist should observe the patient in this position for a short while.

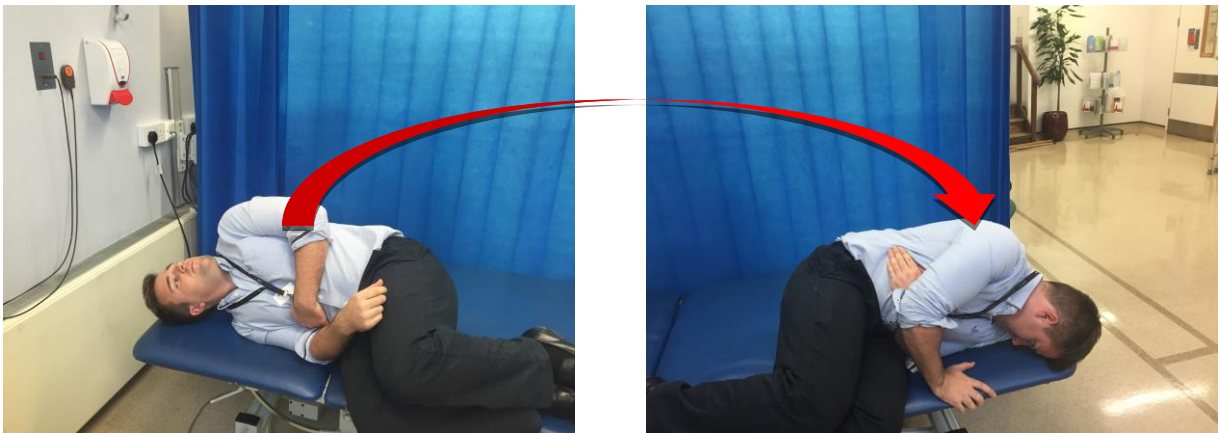
**picture shows Epley for the right side.*

Semont Manoeuvre

Indication: Posterior canal cupulolithiasis

Instructions:

1. The patient should be sitting on the edge of the treatment table. Turn the head 45 degrees horizontally away from the side to be treated.
2. Next bring the patient down onto the side opposite to the direction the head is turned. Stay in this position for 2 minutes
3. Now move 180 degrees towards the other side as quickly as you can whilst maintaining the head position, coming to an abrupt halt. Stay in this position for another 2 minutes.
4. Slowly move the patient back into sitting and keep in the head down until any dizziness has settled and slowly bring the head into neutral.



**This picture illustrates the Semont manoeuvre for the right posterior canal*

Brandt-Daroff Exercises

Indications: Posterior cupulolithiasis or canalithiasis BPPV
Phobic positional vertigo

Instructions:



1. Sit upright on the edge of the bed. Turn the head 45 degrees horizontally one way and lay down on the opposite side so that the head is up at a 45 degree angle. Remain on this until any dizziness subsides plus 30 seconds
2. Sit up and wait for another 30 seconds with the head in neutral.
3. Turn the head 45 degrees horizontally in the other direction and lie down on the other side, again so the head is looking up at a 45 degree angle. Stay down until any dizziness subsides plus 30 seconds
4. Sit up again and wait for another 30 seconds with the head in neutral

This is 1 repetition. This should be repeated 5 times, 2-3 times a day for 14 days as a home exercise.

Modified Semont for the Horizontal Canal (Casani Manoeuvre)

Indication: Horizontal canal cupulolithiasis BPPV

Instructions:



1. The patient should be sitting over the edge of the treatment table.



2. Quickly lay down on the affected side



3. As soon as the patient is on their side, rotate the head 45 degrees down. Wait for 2 minutes and then slowly bring the patient back into sitting.

**Picture illustrates Casani for the right horizontal canal*

Brandt-Daroff exercises (Modified for the Horizontal Canal)

Indication: Horizontal canal cupulolithiasis BPPV

Instructions:



1. Sit upright on the edge of the bed. Lie down on one side and then sit up again
2. Next lie down on the other side and then sit up again.

The difference with the standard Brandt-Daroff exercises is that here there is limited time spent in each position and there is no cervical rotation. Repeat to tolerance, 5-20 times.

BBQ Roll Manoeuvre

Indication: Horizontal canalithiasis BPPV

Instructions:



1. Lay the patient supine with 30 degrees flexion. Alternatively bring the head of the bed up 30 degrees.

2. The patients head is then moved 90 degrees towards the affected side for 30-60 seconds



3. The patient then moves their head back into neutral for 30-60 seconds



4. The patient then rolls onto the other side (away from the affected side) for 30-60 seconds



5. Finally the patient continues to roll away from the affected side into prone, resting on their elbows with their chin tucked towards their chest for another 30-60 seconds. The manoeuvre is now completed: depending on the ability of the patient, they can either stand up from this position or continue to roll in the same direction onto their side and sit up from there.

**Picture illustrates BBQ Roll for the right horizontal canal*

Appiani Manoeuvre (Gufoni-down)

Indication: Horizontal canalithiasis BPPV

Instructions



1. The patient should be sitting over the edge of the treatment table.



2. Lay down on the unaffected side. Wait for 2 minutes



3. After 2 minutes, rotate the head 45 degrees down

** Pictures illustrate Appiani manoeuvre for the left horizontal canal*

Gufoni (Up) Manoeuvre

Indication: Horizontal canalithiasis (anterior arm) BPPV

Instructions:



1. The patient should be sitting over the edge of the treatment table.



2. Lie down on the affected side until dizziness stops plus 30 seconds.



3. Rotate the head 45 degrees up and stay for 1 minute. Then slowly sit up. This manoeuvre may then need to be followed by other treatment for HC canalithiasis

**Picture illustrates Gufoni manoeuvre for the right horizontal canal*

Prolonged Positioning

Indication: Horizontal canalithiasis BPPV

Instructions



1. The patient should sit on the edge of their bed



2. Lie down on the affected side for 30-60 seconds



3. Roll to the back and allow 30 seconds and any dizziness to settle



4. Roll onto the unaffected side and remain there for 12 hours. This manoeuvre works best when the patient is going to bed. If they need to get up during the 12 hours, they can do so and then go back to bed following the same steps (1-4)

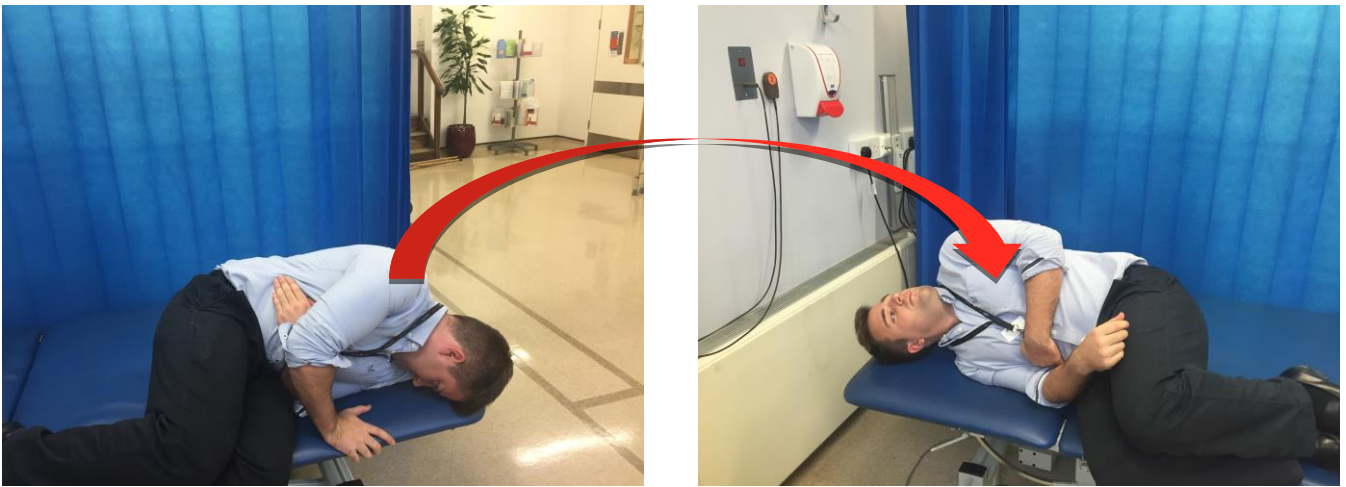
**Picture illustrates prolonged positioning for right horizontal canal*

Liberatory (Semont) manoeuvre modified for the Anterior Canal

Indication: Anterior canal cupulolithiasis BPPV

Instructions:

1. The patient should be sitting on the edge of the treatment table. Turn the head 45 degrees horizontally towards the affected side.
2. Next quickly bring the patient down onto the involved side. Stay in this position for 2 minutes
3. Now move 180 degrees towards the other side as quickly as you can whilst maintaining the head position, coming to an abrupt halt. Stay in this position for another 2 minutes.
4. Slowly move the patient back into sitting and keep in the head down until any dizziness has settled and slowly bring the head into neutral.



**This picture illustrates the modified Semont manoeuvre for the left anterior canal*

Deep Head Hanging Manoeuvre

Indication: Anterior canalithiasis BPPV

Instructions:

1. The patient should be sitting on the treatment table
2. The patient should lie down with their head extended off the table at least 30 degrees until dizziness and nystagmus have stopped plus 30 seconds
3. Next quickly facilitate the patients neck into flexion ('chin to chest') whilst they are still lying down. Wait for another 30 seconds
4. Sit up and bring the neck back into neutral and observe for another 30 seconds.

Kim Manoeuvre for Anterior Canal

Indication: Anterior canalithiasis BPPV

Instructions:

1. The patient should be sitting on the treatment table. Rotate the head 45 degrees horizontally to the uninvolved side.
2. Lie down with the head 30 degrees off the treatment table, maintaining the rotation. Wait for 2 minutes
3. Remain in supine, but bring the head into 0 degree extension but maintain the 45 degrees rotation. Wait for 1 minute
4. Sit up, place the head down into 30 degrees flexion and 0 degrees rotation