

Comparison of Video Head Impulse Test Findings Before and After Therapy Maneuvers in Individuals with Benign Paroxysmal Positional Vertigo

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Abstract

Purpose: Vestibuloocular reflex (VOR) may be helpful in the diagnosis of Benign Paroxysmal Positional Vertigo (BPPV). Video Head Impulse Test (vHIT) can effectively diagnose VOR deficits in vestibular disorders. **Aims:** The aim of this study is to investigate the significance of vHIT in determining the efficacy of therapeutic maneuvers in individuals with posterior semicircular canal BPPV. **Materials and Methods:** The study included 25 patients with posterior SCC BPPV (Study Group) between the ages of 19-65 years, 30 healthy individuals (Control Group). All individuals underwent otorhinolaryngologic examination, audiological evaluation with, videonystagmography and vHIT. The Dizziness Handicap Inventory (DHI) and Visual Analogue Scale (VAS) were administered to the individuals with posterior SCC BPPV for the intensity of dizziness and Modified Epley maneuver was performed 3 times at an interval of 3 days. The vHIT, DHI and VAS were re-administered to these individuals 1 week after improvement was detected in positional nystagmus. **Results:** There was no significant difference between the study and control groups in terms of vHIT gains for all bilateral SCCs before therapeutic maneuver ($p>0.05$). In the study group, there was no significant difference between vHIT gains of all bilateral SSCs before and after therapeutic maneuvers ($p>0.05$). No asymmetry or refixation saccades (overt and covert) were observed in any of the individuals in both groups during all measurements. Compared to before therapeutic maneuvers, there was a significant decrease in dizziness-related disability level assessed by DHI and intensity of dizziness assessed by VAS in the study group after the improvement ($p<0.001$). **Conclusion:** It was found that vHIT was not a diagnostic test in BPPV and in terms of evaluating the efficacy of therapeutic maneuvers. Subjective evaluations determining the intensity of dizziness and level of dizziness-related disability in BPPV provided supportive information in diagnosis and in determining the efficacy of therapeutic maneuvers.

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