



**Service Priorities and Programmes**  
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**An Advance of Treatment for Patients with Benign Paroxysmal Positional Vertigo (BPPV)**

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**Introduction**

Vertigo, an illusion of rotation, is a very common condition affecting people worldwide. Benign paroxysmal positional vertigo (BPPV) accounted for 8% of individual with moderate or severe dizziness / vertigo. This disorder leads to significant morbidity, psychosocial impact and medical cost. Pharmacological treatments with vestibular suppressants have long been used for symptomatic relief; but medications might delay the vestibular compensation. Another choice of treatment of BPPV is a comprehensive vestibular rehabilitation. It has been proposed to solve the root problem and prevent further injury due to balance impairment.

**Objectives**

To evaluate the effectiveness of canalith repositioning maneuvers and therapeutic exercises (habituation and balance exercises) in patients with BPPV

**Methodology**

A retrospective review of patients with referred diagnosis of BPPV with vestibular dysfunctions attending the Physiotherapy Out-patient department during the period March 2016 to June 2017 was performed. A pre-treatment assessment was carried out to identify the deficits in vestibular system affecting different aspects. Physiotherapy interventions included canalith repositioning maneuvers and balance exercises (customized training programme(s) using comprehensive balance system (Balance Master), tailor-made dynamic balance training according to individual deficits, etc.) were prescribed. Pre and post treatment assessments regarding balance performance using Romberg's test and single leg stand test (SLST) were carried out upon completion of treatment. Wilcoxon signed rank test was carried out to evaluate the changes in SLST before and after treatments.

**Result**

Twelve patients (9 female, 3 male) with a mean age of 57.5 (SD 11.4) were reviewed. An average of 3.8 treatment sessions (SD: 3.0) were completed for each patient. Majority of them was given vestibular suppressants prior to commencement of

physiotherapy intervention. On average, there was a 73% subjective improvement on vertigo symptoms. Eight out of twelve became vertigo symptom-free upon completion of intervention. There were improvements in functional test results. 86% of patients with positive Romberg test pre treatment were tested negative after treatment. A significant improvement was also found in SLST ( $p=0.011$ ), which indicate an enhancement in dynamic balance.

In conclusion, it was observed that an individualized physiotherapy approach could effectively decrease patients' symptoms as well as improve functional balance. It addressed better the underlying cause of BPPV and acted as an alternative treatment to relieve the symptoms.