Vestibular Rehabilitation for a Geriatric Patient with Benign Paroxysmal Positional Vertigo Treatment Failure: A Case Report

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Background & Purpose

What is Benign Paroxysmal Positional Vertigo (BPPV)?
- The most common vestibular disorder.\(^1\)
- Caused by misplaced otoconia in the semicircular canals.\(^2\)
- Symptoms: dizziness, nausea, nystagmus, brief episodic vertigo during rapid head movements and specific head positions.\(^2\)
- Diagnosed with the Dix-Hallpike test.\(^3,5\)
- Gold standard treatment: the Epley maneuver is up to 93% effective at resolving BPPV.\(^5\)

What is BPPV Treatment Failure?
- Persistent symptoms after initial BPPV treatment.\(^3\)
- Reasons for a treatment failure: persistent BPPV, coexisting vestibular condition, CNS disorder.\(^3\)
- 31-61% of patients with BPPV experience non-positional persistent imbalance, known as residual dizziness (RD).\(^3\)
- The cause of RD remains unclear.\(^4\)
- RD is common among the elderly, causing impaired functional mobility, increased risk of falls, and decreased quality of life.\(^3,4\)

Purpose
- The purpose of this case study was to document the vestibular rehabilitation of a geriatric patient with BPPV treatment failure.

Case Description
- 77 year-old male referred to outpatient physical therapy.
- Episodes of unsteadiness and dizziness during ambulation, sit to stand transfers, and fast head movements.
- Extensive PMH: Type 2 diabetes, hypertension, Lyme disease, retinopathy, glaucoma, depression, anxiety, peripheral neuropathy, prior alcoholism.
- Previously independent with ambulation, but lately needed cane or furniture for support during episodes of imbalance.

Interventions

Case Timeline

Conclusions
- A customized vestibular rehabilitation program appeared successful in improving dizziness, balance and functional mobility for this patient with RD after BPPV treatment failure.
- Treatment of BPPV is not always rapid and straightforward, especially in the geriatric population.
- Patients with RD may benefit from a comprehensive and customized vestibular rehabilitation program.
- It is important that patients with BPPV treatment failure be screened for potential causes such as coexisting vestibular conditions.\(^3\)
- Physical therapists need to be aware of their key role in identifying and treating patients with BPPV treatment failure.

References

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