Benign Paroxysmal Positional Vertigo (BPPV) Intervention Options

Clinical Bottom Line(s):
1. The Semont maneuver is an effective treatment for those diagnosed with BPPV bringing a resolution of symptoms for the patient and improving their quality of life.
2. Drug therapy with flunarizine is more effective than no treatment.

Citation:

Level of Evidence:
Strong evidence. Level 1b - The study was a randomized clinical trial (RCT) of 156 patients with 100% follow up.

Clinical question:
In patients diagnosed with benign paroxysmal positional vertigo (BPPV) is vestibular rehabilitation more effective than drug therapy for the long term cessation of symptoms?

The study:
Purpose: to assess the efficiency of three different treatment options (Semont maneuver, flunarizine, and no treatment) in patients diagnosed with BPPV.
Design: 156 patients with BPPV were randomly assigned to one of three treatment groups.

The study patients:
In a convenience sample, patients with balance disorders were enrolled over a three year period at the department of Otolarynology of Campus Bio-Medico University. Of all those that were enrolled 156 were determined to have posterior canal BPPV. Of these, 51 were male and 105 female. All of the patients were over 60 years of age with the average age being 74 years.

Control Group:
Control group participants (n=52) were not given a placebo or any other type of treatment as it is possible for BPPV to resolve spontaneously without treatment.

Experimental Group(s):
Participants in the Semont Maneuver Group (n=52) Received the maneuver up to three times per week until symptoms were resolved. The Flunarizine Group (n=52) received 10mg/d of flunarizine before they slept for 60 days. The Dix-Hallpike maneuver was performed to assess the presence of BPPV at the conclusion of treatment and again to follow up at 6 months.
The Evidence: The success rates (percentage of participants who had a resolution of symptoms after treatment) for the Semont Maneuver group, the Flunarizine group, and the no treatment group were 94.2%, 57.7%, and 34.6% respectively. The relapse rates at 6 months were 3.8%, 5.8%, and 21.1% respectively. The greater success rate of the Semont group was statistically significant compared to the Flunarizine group (p<0.001) and the no treatment group (p<0.001). The success of the Flunarizine group over the no treatment group was also statistically significant (p<0.05). The difference in the relapse rates of the Semont group compared to the flunarizine group was not significant while the relapse rates of both treatments were significantly better than the no treatment group (p<0.05).

Comments:
1. These findings are consistent with those of other studies which show that all adults older than 18 years of age respond to the same treatments.\(^i\)\(^ii\)
2. It was unclear in this study how they ensured reliability of the diagnostic tests and the Semont maneuver. It seems they only had one rater and if they did have more than one they did not establish intra-rater reliability. If this is so it could have compromised internal validity.
3. While they mentioned that the follow up found a statistically significant post-treatment improvement in how the person functions on a daily basis (p<0.001), they did not say which of the groups enjoyed that improvement.
4. BPPV can be debilitating and the cessation of symptoms greatly enhances the quality of life for the patient because dizziness and the fear of falling negatively affect autonomy.

Appraised by: Aaron Van Wagoner  Date appraised: July 30, 2009

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