The Treatment of Atypical and Refractory Benign Paroxysmal Positional Vertigo (BPPV) in Office with a Multi-Axial Repositioning Chair (Omniax)

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Introduction

Benign Paroxysmal Positional Vertigo (BPPV) is the most common form of vertigo and dizziness in the neurotology clinic. Although the majority of cases of BPPV can be resolved with in-office repositioning maneuvers, a small number of cases do not respond and the use of the Multi-Axial Repositioning Chair (Omniax) may be useful to allow resolution of both refractory and atypical cases of BPPV.

The purpose of this study is to retrospectively review a large number of refractory and atypical cases that required use of the Omniax chair and study the success and recurrence rate in comparison to standard office repositioning maneuvers.

Figure 1. Number of patient for each type of BPPV

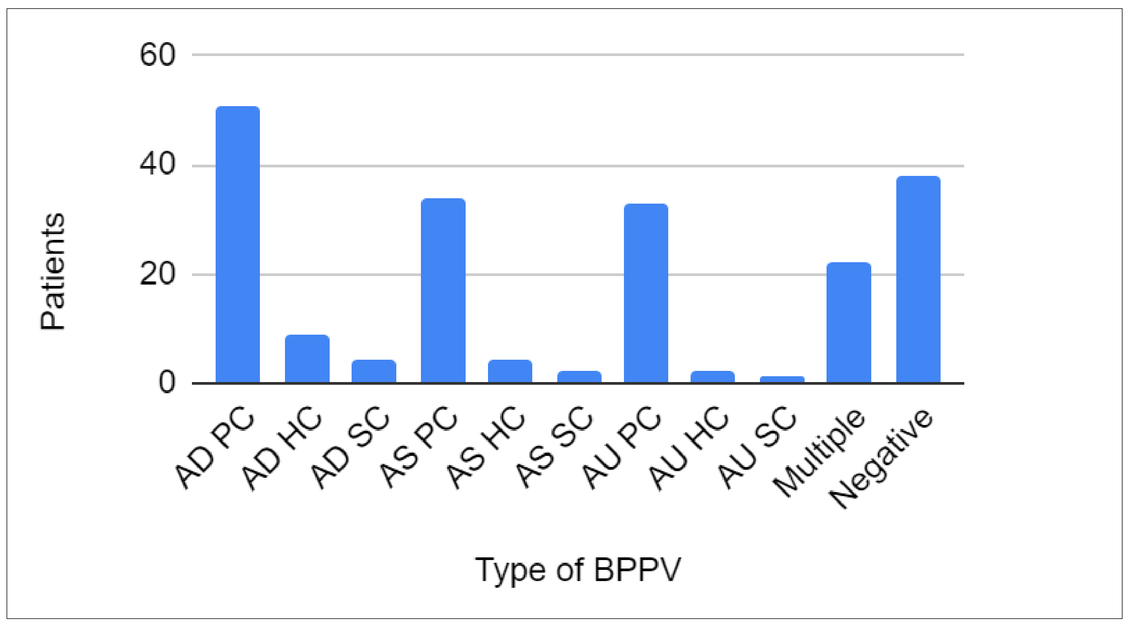
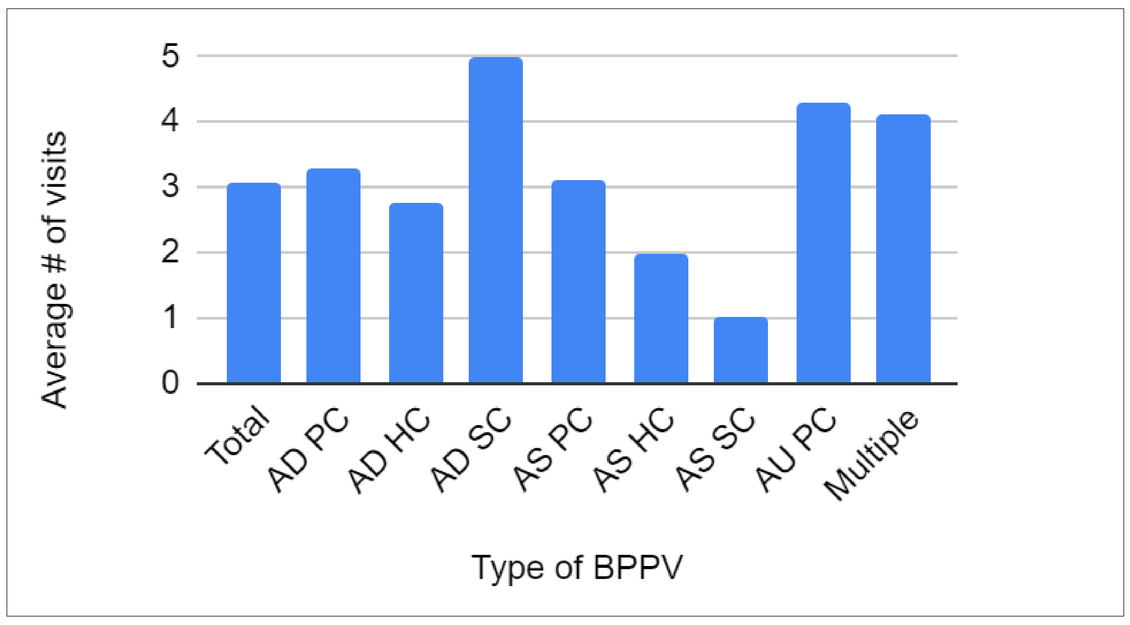


Figure 2. Average number of Omniax visits required for each type of BPPV



Results

200 patient charts were reviewed from 2018-2020. 43% of patients had unilateral posterior canal BPPV while 57% of patients had atypical BPPV (bilateral posterior canal BPPV, horizontal canal BPPV, superior canal BPPV or multiple canals affected). 62.5% of patients were female while 37.5% were male. Average age was 68.8 years.

Initial data evaluation showed that patients presenting with superior canal BPPV, bilateral posterior canal BPPV and multiple canal BPPV (atypical BPPV) required more Omniax treatments than patients presenting with unilateral posterior canal BPPV. Patients with multiple canals affected on BPPV evaluation were more likely to require multiple visits for resolution of symptoms. Patients with decreased mobility due to back and neck disorders were more likely to be referred to Omniax treatment due to inability to perform in-office repositioning maneuvers.

163 of the 200 patients required multiple (>1) Omniax treatments for recurrent or refractory BPPV.

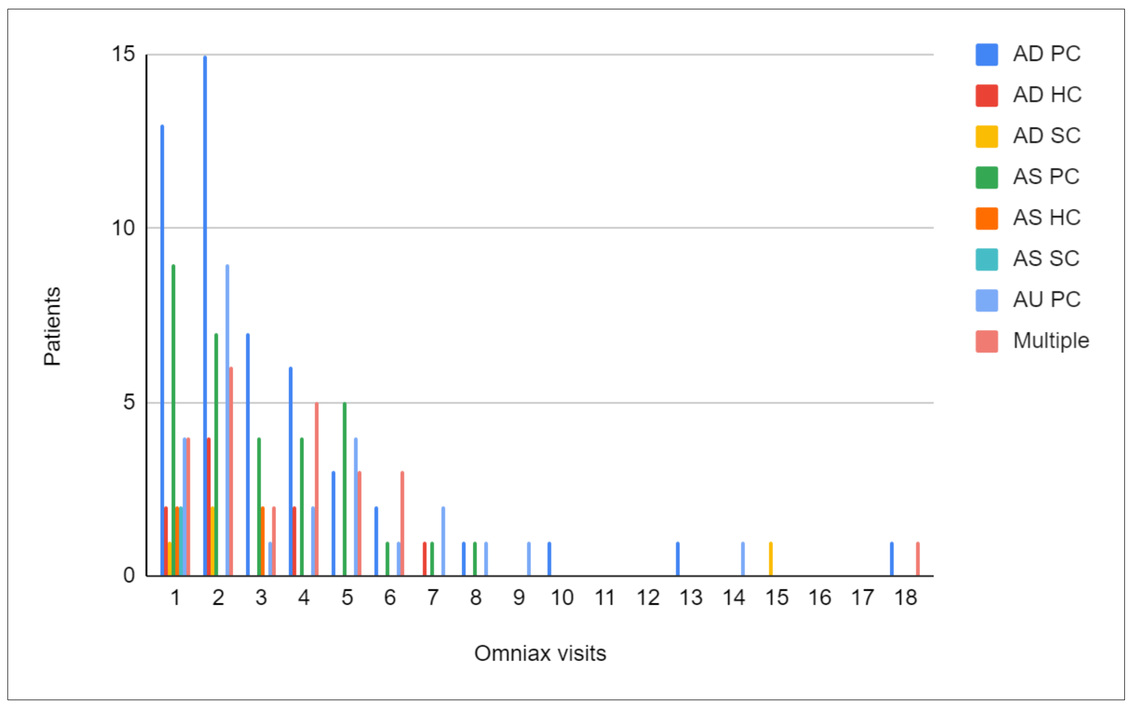
Methods & Materials

This was a retrospective review of adult patients (> 18 years old) who were referred to Michigan Ear Institute from 2018-2020 for treatment of BPPV with the Multi-Axial Repositioning Chair.

The purpose of the study is to define the role of the Omniax chair in patients who have refractory and/or atypical BPPV cases. Prior particle positioning maneuvers performed (without Omniax), canals affected, number of treatments required, success, and recurrence post-Ominax was recorded.

We expected that the use of the Multi-Axial Repositioning Chair (Omniax) would improve atypical and refractory cases of BPPV for patients with superior and horizontal canal BPPV (atypical BPPV) and those with refractory cases of posterior canal BPPV. Improved outcomes include both resolution of symptoms and improvement of Omniax testing.

Figure 3. Number of Omniax visits required for each type of BPPV



Conclusion

BPPV is the most common form of vertigo in the neurotology office. The Omniax chair has been used for diagnosis and treatment of recurrent and refractory forms of BPPV. The purpose of this study was to evaluate the role of the Omniax chair in a private practice neurotology office setting. Though the majority of patients referred to the Omniax chair have refractory posterior canal BPPV, the patients referred for atypical BPPV were more likely to require multiple visits for resolution of symptoms. Patients with decreased mobility due to back and neck disorders were also more likely to undergo Omniax evaluation prior to in-office repositioning maneuvers. This data can be further used to assist otolaryngologists in referring cases of atypical or refractory BPPV for evaluation at a facility with an Omniax chair for diagnosis and treatment.

References

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