Is liberatory nystagmus in BPPV a marker of treatment success?

Patricia Castro[1], Harry Akram[2], Florencia Lerchudi[3], Liliana Román[4], Hayo Breinbauer[4,5], Diego Kaski[6]

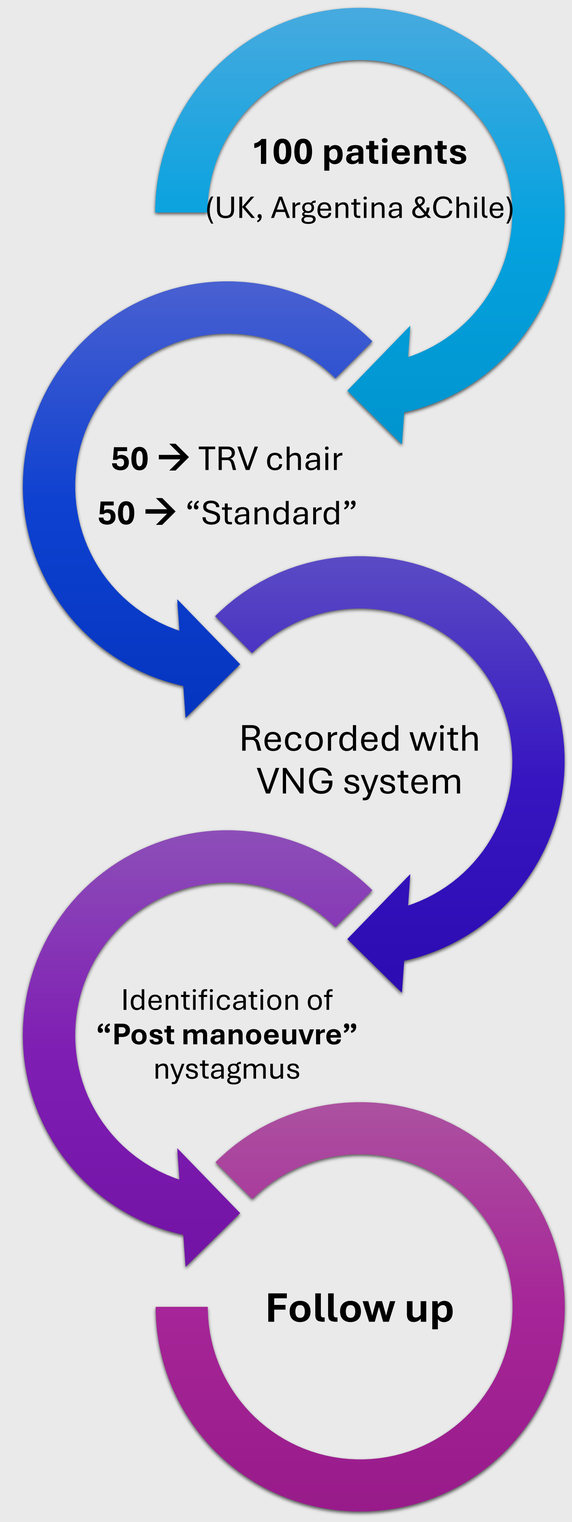
1. School of Allied Health Sciences, Faculty of Health and Life Sciences, De Montfort University, Leicester, UK.
2. Adult Diagnostic Audiology department, University College London Hospitals trust, UK.
3. Neurotology Department, Neurology Unit, FLENI, Buenos Aires, Argentina
4. Department of Otolaryngology, Facultad de Medicina Clínica Alemana, Universidad del Desarrollo, Chile
5. Laboratory for Clinical Neuro-Otology and Balance-Neuroscience, Department of Neuroscience, Facultad de Medicina, Universidad de Chile, Chile
6. SENSE research unit, Department of clinical and movement neuroscience, Institute of Neurology, University College London, UK

INTRODUCTION

Benign Paroxysmal Positional Vertigo (BPPV) is the most common adult vestibular disorder worldwide. Even when repositioning manoeuvres are highly effective, there is a percentage of patients in whom such treatments are not successful despite being conducted appropriately. However, we do not have indicators of treatment effectiveness.

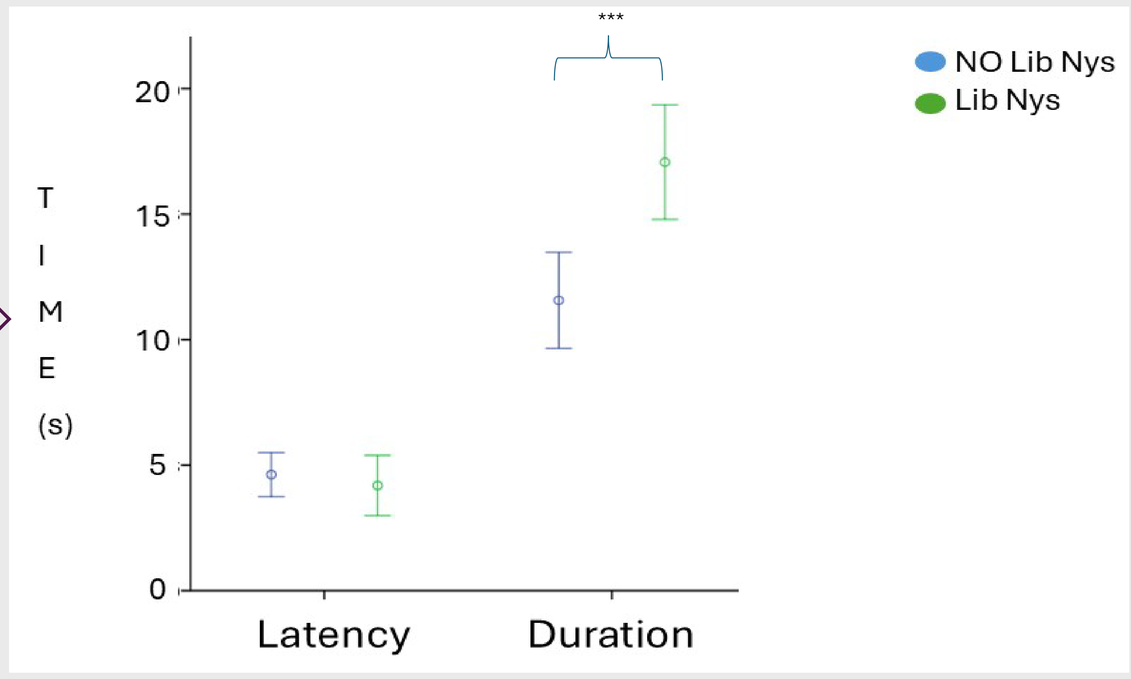
Previous studies have noted a clinical finding called the "liberatory" nystagmus; the eye movement (downbeating +/- torsional component) at the end of the repositioning manoeuvres that is thought to represent the migration of the otolithic debris away from the canal (Giannoni et al 2020). Nevertheless, the real relevance of these eye movements as a possible marker of treatment success is unknown.

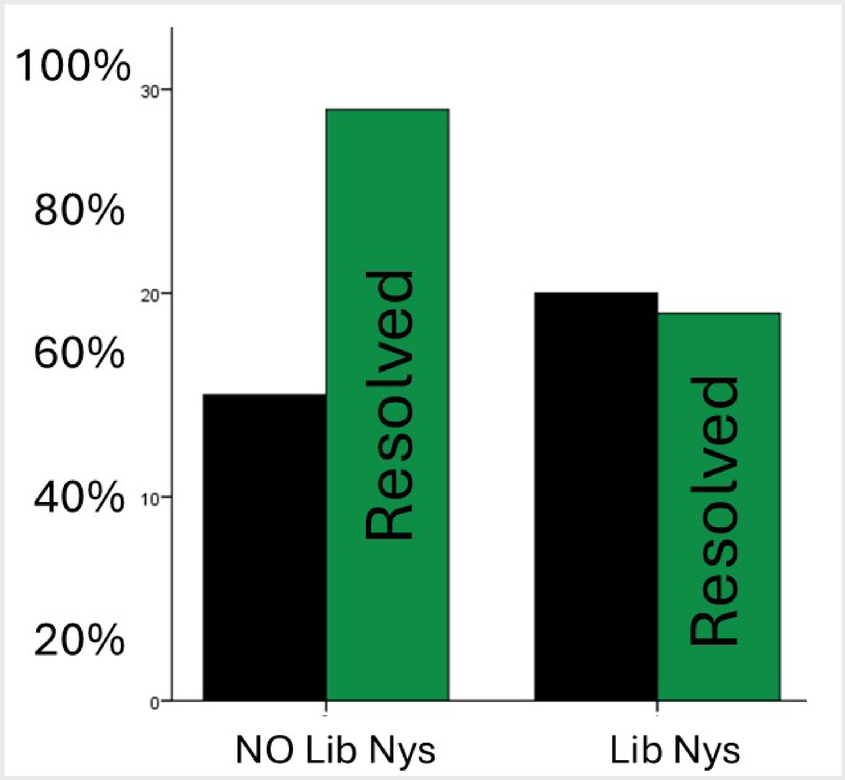
METHODS



RESULTS

Patients who presented liberatory nystagmus had a longer duration of nystagmus during assessment.





Resolution **not associated** with liberatory nystagmus (chi2: p: 0.09).

66% of NO liberatory nystagmus → resolved

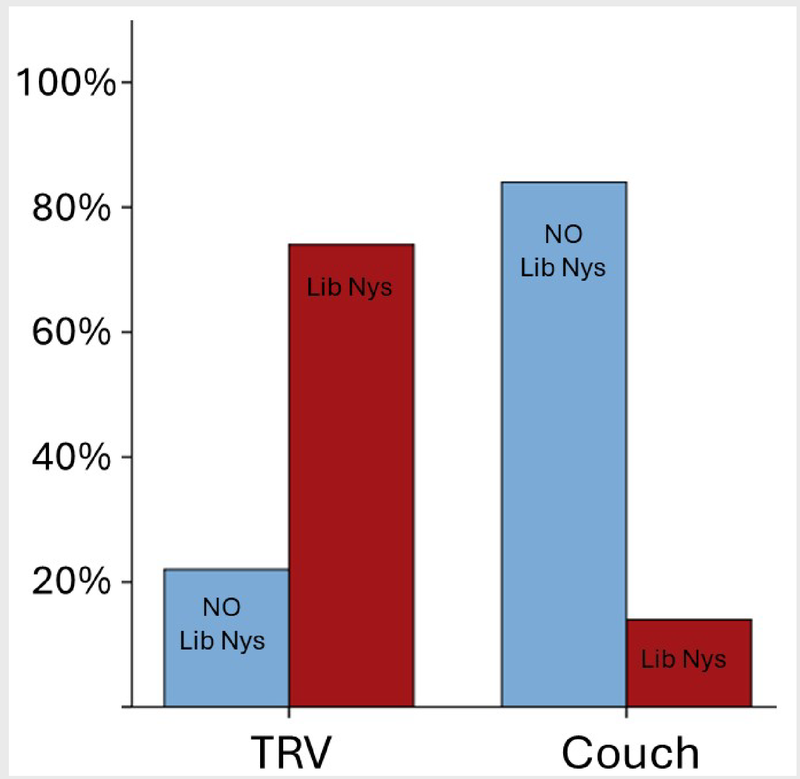
49% of liberatory nystagmus →resolved

Method **is associated** with liberatory nystagmus

chi2: p<0.000

77% patients treated using TRV → lib. nystagmus

15% of those treated on a couch → lib. nystagmus



Regression to identify factors affecting resolution, method, liberatory nystagmus, duration and latency:

Not significant model. P=0.5

DISCUSSION

There was no relationship between liberatory nystagmus and resolution of BPPV.

TRV as being mechanically stronger would be linked to more particles displaced →longer duration and liberatory nystagmus.

The presence of nystagmus at the end of repositioning manoeuvres in BPPV may indeed represent movement of the otolithic debris towards the common cross but does not necessarily constitute a marker of treatment success.

Correspondence: patricia.castroabarca@dmu.ac.uk