

Posturographic effects on the Epley maneuver on patients with benign paroxysmal positional vertigo of the posterior canal



PRESENTER:
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BACKGROUND: Posturography could serve as a tool to assess the success of a repositioning maneuver.

INTRODUCTION: BPPV is the most common peripheral condition in otoneurologic diseases.

OBJECTIVE: To determine if the Epley repositioning maneuver (ERM) produces a significant modification of postural control (PC) in patients with posterior semicircular canal BPPV (BPPV of PC).

METHODS:

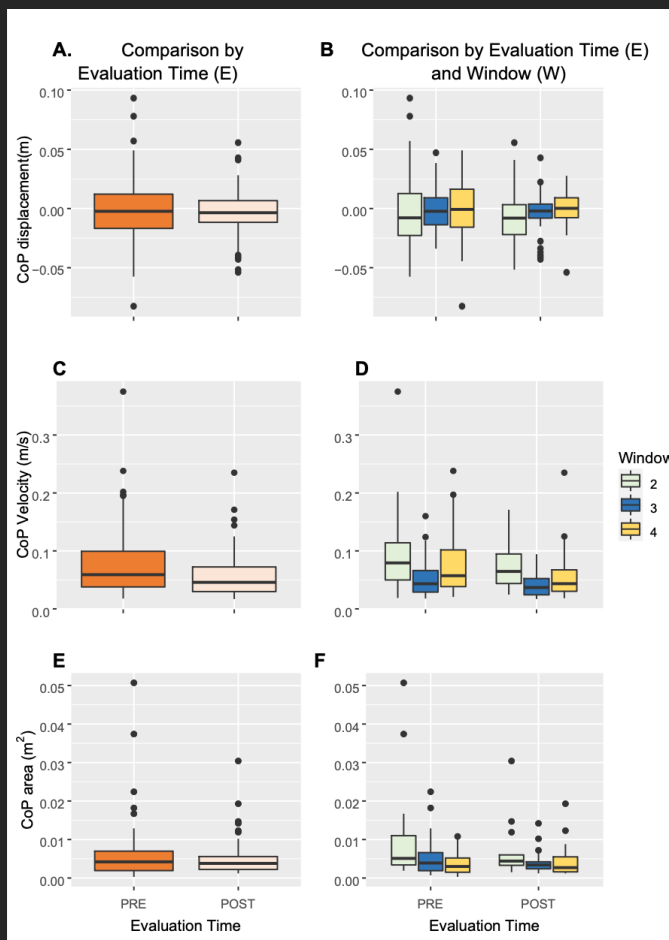
1. A prospective descriptive study was carried out in a BPPV of PC diagnosed sample of 21 male and female patients between 43 and 81 years old (65.2 ± 12.6).
2. The displacement, velocity, and area of the center of pressure (CoP) before and after the ERM was compared.
3. The study was approved by the Ethics Committee of the Universidad Santo Tomás, Viña del Mar, Chile.



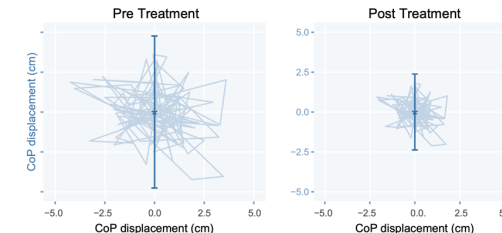
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ERM performed in patients with BPPV of PC produces an improvement in the control of the CoP, demonstrated by the decrease in the speed and the area of movement of the CoP. The success of the ERM produce modulation of the PC fifteen minutes after the maneuver.



RESULTS: Computed Posturography showed that the velocity and the area of the CoP had a significant decrease in its values after the ERM, while the CoP shift remained unchanged.

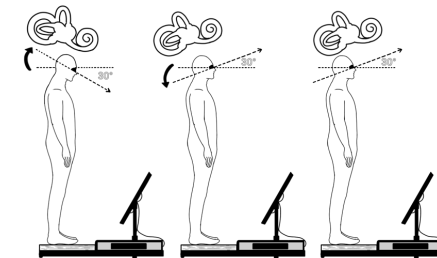


DISCUSSION

The prompt change in PC, 15 minutes after ERM, can be interpreted as a vestibular evaluation, according to Norré, an alteration at the vestibulospinal level should manifest compensation which this study corroborates that applying the ERM is resolved in big measure.

REFERENCES

- 1-Norré ME, Forrez G. Posture tes4ng (posturography) in the diagnosis of peripheral ves4bular pathology. *Arch Otorhinolaryngol*. 1986;243(3):186- 189. doi: 10.1007/BF00470618.
- 2-Feldman AG, Zhang L. Eye and head movements and ves4bulo-ocular reflex in the context of indirect, referent control of motor ac4ons. *J Neurophysiol*. 2020;124(1):115-133. doi: 10.1152/jn.00076.2020.
- 3-Novoa I. Neurophysiological mechanisms of ves4bular rehabilita4on. *Rev Otorrinolaringol Cir Cabeza Cuello*. 2019;79:240-247.
- 4- Bonan IV, Colle FM, Guichard JP, et al. Reliance on visual informa4on a4er stroke. Part I: Balance on dynamic posturography. *Arch Phys Med Rehabil*. 2004;85(2):268-273. doi: 10.1016/j.apmr.2003.06.017.



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