THE VESTIBULAR REHABILITATION THERAPY (VRT) VERSUS HIGH DOSE BETAHISTINE FOR TREATMENT OF THE ELDERLY WITH CHRONIC VESTIBULOPATHY : A RANDOMIZED CLINICAL TRIAL

Noor Dina HASHIM1,2, Mohamad Norkahfi RAZALI1, Asma ABDULLAH1,2,3, Nor Haniza ABDUL WAHAT1,2,3, Norzie Nani Mamat4
1Department of Otorhinolaryngology-Head & Neck Surgery, Universiti Kebangsaan Malaysia Medical Centre, 56000 Kuala Lumpur, Malaysia
2Institute of Hearing, Ear and Speech, Faculty of Health Sciences, Universiti Kebangsaan Malaysia, 50300 Kuala Lumpur, Malaysia
3Audiology Program, Faculty of Health Sciences, Universiti Kebangsaan Malaysia, 50300 Kuala Lumpur, Malaysia
4Physiotherapy Unit, Department of Medical Rehabilitation Services, Universiti Kebangsaan Malaysia Medical Centre, 56000 Kuala Lumpur, Malaysia

Chronic vestibulopathy (CV) is a peripheral vestibular disorder characterized by chronic vertigo lasting for 3 months or more in which it does not fit the criteria for other peripheral vestibular problems and without evidence of central cause of vertigo on clinical assessment. It is a diagnosis of exclusion, believed due to aging process. Its occurrence has a great impact on quality of life as it may cause recurrent falls, neuro-vegetative symptoms and functional capacity disorder.

HIGH DOSE BETAHISTINE
In chronic vertigo due to Meniere’s disease, there is evidence suggesting that a high dosage of betahistine dihydrochloride is significantly superior in reducing frequency of vertigo attacks. Its role as a treatment in CV is studied.

VESTIBULAR REHABILITATION THERAPY (VRT)
Is a program of graded exercises that consist of eye, head and body movements designed to stimulate vestibular system to obtain vestibular compensation via adaptation, habituation and substitution.

OBJECTIVE : To study the effectiveness of vestibular rehabilitation therapy (VRT) and high dose Betahistine in treating elderly with chronic vestibulopathy

Materials and Methods
Fifty patients (14 males, 36 females) aged 55 years-old and above diagnosed with CV were recruited. Patients were randomly assigned to either VRT or high dose Betahistine group. The VRT group would attend therapy once a week for at least 4 sessions within 6 weeks while for the other group, Betahistine was prescribed at 48 mg three times daily for 6 weeks. The Vertigo Symptoms Scale (VSS) and Vertigo Handicap Questionnaires (VHQ) were used as subjective assessments at pre-intervention, at 3 weeks and after 6 weeks post-intervention while Video Head Impulse Test (vHIT) and Cervical Evoked Myogenic Potential (cVEMP) were used as objective assessments at pre-intervention and after 6 weeks post-intervention.

Results
The mean scores of VSS and VHQ showed decreasing trends from baseline to 3 weeks and 6 weeks and were statistically significant in both treatment groups (Figure 1). However, when comparing between groups, there were no significant difference in scores indicating both treatments were equally effective.

Conclusion
Both treatment modalities are equally effective in treating elderly with CV. Variety of ages in elderly makes no difference on therapy outcome. Elderly with CV now can be counselled on which treatment options best suits their preferences.