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学位論文の題名	<p>Objective measures of physical activity in patients with chronic unilateral vestibular hypofunction, and its relationship to handicap, anxiety and postural stability (慢性一側性前庭機能障害患者における身体活動の客観的評価とめまいに関する障害、不安、姿勢安定能との関連性)</p> <p>Auris Nasus Larynx. 2019, 46(1):70-77. doi:10.1016/j.anl.2018.06.010.</p>
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Abstract

[Background and Purpose]

Dizziness is one of the common symptoms in the general population. Patients with dizziness experience balance problems and anxiety, which can lead to decreased physical activity levels, participation in their daily activities and their quality of life. Moreover, recovery of vestibular function from vestibular injury requires physical activity. Although there are reports that decreased physical activity is associated with handicap, anxiety, postural instability and reduced recovery of vestibular function in patients with chronic dizziness, these data were collected by self-report questionnaires. Therefore, the objective data of physical activity and the relationships between physical activity, handicap, anxiety and postural stability in patients with chronic dizziness are not clear. The purpose of this research was to objectively measure the physical activity of patients with chronic dizziness in daily living as well as handicap, anxiety and postural stability compared to healthy adults. Additionally, we aimed to investigate the relationships between physical activity, handicap, anxiety and postural stability in patients with chronic dizziness.

[Subjects and Methods]

Twenty-eight patients with chronic dizziness of more than 3 months caused by unilateral vestibular hypofunction (patient group) and twenty-eight age-matched community dwelling healthy adults (healthy group) participated in this study. The amount of physical activity including time of sedentary behavior, light physical activity, moderate to vigorous physical activity and total physical activity using tri-axial accelerometer, self-perceived handicap and anxiety using questionnaires, and postural stability were measured using computerized dynamic posturography.

[Results]

The results showed worse handicap, anxiety and postural stability in the patient group compared to the healthy group. Objective measures of physical activity revealed that the patient group had significantly longer time of sedentary behavior, shorter time of light physical activity, and shorter time of total physical activity compared to the healthy group; however, time of moderate to vigorous physical activity was not significantly different between groups. Moreover, there were correlations between physical activity and postural stability in the patient group, while there were no correlations between physical activity, handicap or anxiety in the patient group.

[Conclusion]

These results suggest that objectively measured physical activity of the patients with chronic unilateral vestibular hypofunction is lower compared to the healthy adults, and less active patients showed decreased postural stability. However, the details of physical activity and causal effect between physical activity and postural stability were not clear and further investigation is needed.