

Summary

Introduction: Dizziness is a widespread condition in the elderly. The physiological process of aging and the overlapping of various disease processes make it complex, making the diagnostic and therapeutic process difficult. Data on the frequency and determinants of vertigo in the Polish population, especially among patients hospitalized in geriatric wards, are sparse. Identifying vertigo predictors may provide new clues to help treat this significant geriatric problem.

The study aimed to assess:

1) the frequency of dizziness in elderly patients hospitalized in the Geriatrics Department,

2) determinants of dizziness in patients hospitalized in the geriatric ward (taking into account health, nutritional status, mental state, medications used, and biochemical parameters),

3) the relationship between dizziness and physical and life disabilities in elderly patients,

4) the relationship between dizziness and the risk of falls and falls within the last 12 months,

5) the relationship between dizziness and blood pressure, orthostatic hypotension and pulse pressure,

6) quality of life and the risk of an adverse course of vertigo in patients with this problem hospitalized in the geriatric ward.

Materials and methods: The study included patients consecutively admitted to the Geriatrics Department of the Health Care Center of the Ministry of Interior and Administration in Białystok between 05.2019. a 12.2019 Based on a detailed study, as part of a comprehensive geriatric evaluation, data was analyzed to assess functional fitness, mental state, nutritional status, and the presence of comorbidities and medications. The occurrence of vertigo was confirmed by the patient's confirmation of its events within the last three months. Furthermore, we assessed the quality of life and prognosis among patients with this ailment.

Multiple logistic regression analysis was used to determine the factors independently related to the weakness syndrome.

Results: 245 patients hospitalized in the Geriatrics Department were included in the study. The study group consists of patients in old age, with an average age of 81 (6.65) years, characterized by a high degree of functional disability both in terms of complex and basic activities of daily living, multi-disease (diagnosed in 1/5 of respondents), polypharmacy, malnutrition, and frailty syndrome (occurring in over half of the respondents). The incidence of vertigo was 54%. People with dizziness were characterized by better efficiency in basic and complex daily living activities than the control group. These people had an increased risk of falls and depressive disorders, significantly less frequently taking SSRI antidepressants, and had significantly lower serum iron and calcium levels. Based on regression, we found increased pulse pressure, a high risk of falls based on the Tinetti test, and the symptoms of dyspnoea and paraesthesia significantly correlated with dizziness.

Conclusions:

1 / Dizziness is a common complaint of elderly patients requiring hospitalization in a geriatric ward, reported by more than half of the respondents. Dizziness was more frequent in people with preserved locomotion (moving alone or using machines), depressive disorders, ischemic heart disease, renal failure, and decreased serum iron and calcium values.

2/ Many factors cause dizziness in old age. Still, significant, independent predictors of vertigo in the study population were: increased blood pressure and high pulse pressure, the result in the POMA test assessing the risk of repeated falls (being a parameter for determining the physical fitness), shortness of breath, and paraesthesia.

3 / There was no association between dizziness and socio-economic factors, disability in ADL and IADL, visual and hearing impairment, multiple diseases, several chronic diseases and disorders typical of old age, and most of the pharmaceuticals groups used. It can be explained by the specific characteristics of patients' health problems hospitalized in a geriatric ward with the common occurrence of many diseases and disabilities.

4. Dizziness was significantly more common in people with anxiety-depressive syndrome and in the group not using antidepressant drugs, indicating a high share of the psychological component in the pathogenesis of dizziness complaint in the analyzed population.

5 / Dizziness causes a significant reduction in the quality of life of older adults hospitalized in the geriatric ward and is mainly associated with factors associated with an unfavorable prognosis.