

The Influence of Uric Acid Concentration on The Comprehensive Geriatric Assessment, As Exemplified by The Results of Selected Geriatric Scales Routinely Performed in Poland

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ABSTRACT

Due to the presence of many factors disturbing metabolic processes in patients with decompensated somatic condition, the use of geriatric scales may be limited in these cases. The aim of the measurement was to check how the concentration of uric acid - a substance influencing inflammation and important in the mechanism of oxidative stress, affects the results of geriatric scales in hospitalized patients. The analysis included the relationship between uric acid concentration and the final results of selected geriatric scales commonly used in Poland: ADL, MMSE, ACE-III, MNA and GDS. 77 patients hospitalized between 01.07.2022 and 31.12.2023 participated in analysis. Classical methods of variance analysis or nonparametric Kruskal-Wallis tests were used. The analyses showed statistically significant differences in uric acid levels for patients at risk of dementia, based on the ACE-III and MMSE scores, and patients without this risk, as well as for patients with significant malnutrition, according to the MNA scale, and properly nourished individuals. Taking into account the obtained results, it can be concluded that there are biochemical factors that can affect the results of scales performed as part of a comprehensive geriatric assessment. This may suggest the need for more strict qualification of elderly patients for assessment using individual scales. However, further studies and analyses are necessary to determine further potential relationships between biochemical exponents and test results.

Keywords: dementia; geriatric assessment; geriatric scales; malnutrition; uric acid