Concurrent Session 18: Nutrition and Cognitive Development

Predictors of nutritional and functional status in residential aged care

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Background – Poor nutrition can adversely affect health and quality of life in the elderly population. Whilst several studies have used diagnostic screening questionnaires as a tool for nutritional risk assessment, few studies have investigated the relationships of score results derived from the questionnaires with the nutritional status indicated by anthropometric measurements and biochemical markers.

Objectives – To determine the nutritional status among a group of Australian aged care residents utilising three available diagnostic screening questionnaires: Mini Nutritional Assessment (MNA), Geriatric Depression Scale (GDS), and Katz Activities of Daily Living (ADL). The associations of the questionnaire results with the nutritional (anthropometry and serum concentrations of 25(OH)D, folate and vitamin B12) and mobility (using the timed up and go, TUG, walking test) status of the study population were examined.

Subjects and Methods – Of 115 participants, 66 were able and willing to complete all three questionnaires, 113 provided a blood sample for biochemical tests and underwent anthropometric measurements, and 46 were able and willing to complete the TUG test.

Results – According to the participants’ responses to the questionnaires, 16% were malnourished (MNA score <17), and 39% were depressed (GDS score ≥ 6). GDS score was inversely associated with MNA score (greater the depression the lower the MNA score) (r=-.353, P=.015), and serum zinc concentrations (r = -0.343, P = 0.001), and GDS was positively associated with the TUG (r = 0.30, P = 0.030) and ADL score (r = 0.37, P = 0.001).

Conclusions – Nutritional risk assessment using questionnaires indicated that nearly 20% of the study population were classified as malnourished, and more than one-third were depressed. Those who were depressed were at greater risk of malnutrition, and had reduced serum zinc concentrations and reduced mobility. Results from this study indicate that depression is a key factor affecting dietary intake and mobility in elderly populations. Minimising or alleviating depression may therefore assist in increasing food intake, improving mobility, and consequently enhancing the quality of life for aged care residents.