Nutrition and Malnutrition Prevention in Older Adults

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EDITORIAL

Aging alters how the body digests food and absorbs nutrients, as well as how energy is stored in muscle and fat. Sarcopenia is a natural ageing process that is characterised by a gradual loss of lean muscle mass and an increase in fat. Other environmental factors, such as changes in nutritional consumption and physical activity, might worsen this process, as can fundamental changes within the digestive tract itself. This section will go over these characteristics and how they relate to nutritional status and weight management in the elderly.

Malnutrition is widespread among cancer patients who are unable to be cured. Malnutrition is detected in 40-65% of Colorectal Cancer (CRC) patients. Furthermore, malnutrition increases infection, hospitalisation, and medical expenses, and is linked to a poor prognosis in cancer patients. If cancer treatment is ineffective, the patient's nutritional state deteriorates, and cancer-related inflammation and metabolic abnormalities increase their risk of infection and mortality. However, because to the severe side events that might occur as a result of chemotherapy, cytotoxic chemotherapy may be overtreatment for malnourished patients. When cytotoxic chemotherapy is used in excess, adverse events affect nutrition status and reduce quality of life in cancer patients. As a result, we interpreted the adverse effects associated with cytotoxic treatment to suggest malnutrition and chemotherapy tolerance. Thus, nutrition assessment and support are critical in cancer patients.

Several nutrition assessment techniques, such as the Patient-Generated Subjective Global Assessment (PG-SGA), Mini-Nutrition Assessment-Short Form (MNA-SF), Nutrition Risk Index (NRI), and Geriatric Nutrition Risk Index, have been validated in previous studies (GNRI). Malnutrition ratings from PG-SGA and MNA-SF were linked to chemotherapy-related side events and tolerance. However, current nutrition evaluation systems, which are based on lengthy questionnaires, are essentially subjective and vulnerable to recall bias. As a result, PG-SGA and MNA-SF are challenging for geriatric and recalcitrant individuals.

The NRI is calculated objectively using basal body weight, height, and serum albumin levels. However, basal body weight is unclear, which may produce memory bias, and most cancer patients lose weight before diagnosis. Furthermore, NRI calculation is impossible without weight records for the patient. A prior study found a link between NRI and chemotherapeutic toxicity. Other studies, on the other hand, have found that NRI may not predict chemotherapy-induced adverse effects. As a result, the link between NRI and chemotherapy toxicity remains debatable. GNRI is the only accurate and objective tool among the four certified nutrition assessment techniques.

The GNRI is a straightforward and objective technique that takes little time to conduct and aids in the assessment of patient nutrition risk. Because patients' body weight, height, and blood test parameters are frequently measured before cytotoxic treatment, physicians can calculate GNRI in clinical practise without modifying the clinical routine. GNRI was created especially to measure the nutrition risk of elderly patients. Recent research, however, have shown that the GNRI score can help with the identification of nutrition risk and the prediction of tolerance, vulnerability, and prognosis in patients with cancer, chronic illnesses, and hemodialysis. Though the GNRI is a well-established nutrition assessment tool for predicting adverse outcomes associated with chemotherapy in many malignancies, its utility in patients with CRC has yet to be investigated.