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Added value of the PG-SGA in detection of malnutrition in overweight and obese hospitalized patients

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Abstract

Traditional malnutrition screening instruments, such as the Malnutrition Universal Screening Tool (MUST), strongly rely on criteria regarding low BMI and critical weight loss for risk assessment. In an increasingly overweight and obese population, this may result in underdetection of malnutrition. The Patient-Generated Subjective Global Assessment (PG-SGA) was developed in the broader context of anabolic competence and includes assessment of other aspects of malnutrition, such as nutrition impact symptoms and metabolic demand. We therefore aimed to compare MUST and PG-SGA in assessing prevalence of malnutrition in overweight and obese hospitalized patients. We measured risk for malnutrition (MUST score: 0 = low risk, 1 = medium risk, ≥ 2 = high risk) and nutritional status (PG-SGA Categories: A = well nourished, B = moderate/suspected malnutrition, C = severe malnutrition) at admission, in adult patients, on four hospital wards of a university hospital. We compared results for patients with BMI < 25 kg/m² and overweight or obese patients (BMI ≥ 25 kg/m²). Data were obtained in 387 patients (age 59 ± 16 years, 52% male). BMI was 27.1 ± 5.6 kg/m², 35% was overweight and 26% was obese. According to MUST, 16% of patients had risk for malnutrition (MUST score ≥ 1), while according to PG-SGA 31% of patients were malnourished (PG-SGA Stage B/C). In patients with BMI < 25 kg/m² (N = 153), MUST identified 31% as at risk for malnutrition, while PG-SGA assessed 39% as malnourished. In patients with BMI ≥ 25 kg/m² (N = 234), MUST identified 6% as at risk for malnutrition, while PG-SGA assessed 26% as malnourished. Of the 60 malnourished overweight or obese patients according to the PG-SGA, 52 (87%) were categorized as low risk by the MUST. According to assessment by PG-SGA, a quarter of overweight or obese patients is malnourished at hospital admission. Most of these patients are not identified as having risk for malnutrition by the screening tool MUST. Future research is needed to evaluate the current results in relation to predictive value for patient outcomes, and to further optimize hospital nutritional care policies.

Conflict of Interest

A.W. Gomes Neto received research support from Danone Nutricia, H. Jager-Wittenaar was co-developer of the Pt-Global app/web tool. Other authors declare no conflict of interest.