Analysis of sarcopenic obesity prevalence and diagnostic agreement according to the 2022 ESPEN and EASO Consensus in hospitalized older adults with severe obesity.

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Background: Sarcopenic obesity (SO) is a clinical disorder characterized by increased adiposity and decreased muscle mass and function, commonly observed in older adults. However, most of the studies that investigated SO prevalence rates were not based on current standardized diagnostic methods. Thus, this study aims to estimate the prevalence rates of SO and their level of agreement using different instruments proposed by the European Society for Clinical Nutrition and Metabolism (ESPEN) and the European Association for the Study of Obesity (EASO) Consensus, in a sample of hospitalized older adults with severe obesity.

Methods: A cross-sectional study with 90 older adults (≥ 60 years) with severe obesity (body mass index ≥ 35 kg/m/^{2}) seeking an in-hospital multidisciplinary body weight reduction program. Skeletal muscle function was assessed using the five-repetition Sit-Stand test (5-SSt) and Handgrip Strength (HGS). Body composition was evaluated by high percentages of fat mass (FM), low appendicular lean mass (ALM/W), and skeletal muscle mass (SMM/W), adjusted to body weight. The stage of SO was assessed on the presence of at least one comorbidity and specific cut-offs were adopted for each step. All analyses were performed according to gender and age range.

Results: The prevalence rates of SO in the total sample were 23.3%, 25.5%, 31.1%, and 40.0% considering altered values of 5-SSt+FM+ALM/W, HGS+FM+ALM/W, 5-SSt+FMSSM/W, and HGS+FM+SSM/W, respectively. Higher prevalence rates were observed among female and old elderly subgroups, regardless of the diagnostic combination. There were weak agreements between the muscle function tests (5-SSt versus HGS) using both muscle mass indexes in the total sample and all subgroups. Moderate agreements were observed between muscle mass indexes (SMM/W versus ALM/W) in the total sample, male and younger older adults (using 5-SSt), and strong agreements for men and younger older adults (using HGS).

Conclusion: The discrepancies observed between the prevalence rates and their levels of agreement reinforce the need for new studies in similar populations aiming for better standardization of SO assessment.