

Paper Category:	COVID-19 and Sarcopenia and Frailty
Paper Title: (Arial Font; 14 Pt Size)	SARC-CalF modified version with mid-upper arm circumference: Muscle function and mass across different body compositions
Abstract Body: (Arial Font; 12Pt Size)	<ul style="list-style-type: none"> • Background • Objectives • Method • Results • Discussions and Conclusions
<p>(Maximum word limit - 300 words)</p> <p>Background: Mid-upper arm circumference (MUAC) is used as a surrogate marker for muscle mass and nutrition. Although the addition of MUAC to SARC-CalF (SARC-CalF+AC) may enhance sarcopenia detection, it is unclear if SARC-CalF+AC may over-identify patients with malnourishment (low muscle mass/normal muscle function).</p> <p>Objectives: We aim to examine the characteristics of SARC-CalF+AC (SAC-positive) compared to SAC-negative across different four body composition groups of normal (non-obese, non-sarcopenic), sarcopenic, sarcopenic obese (SO) and obese.</p> <p>Method: We studied 230 community-dwelling older adults aged > 50 with intact cognition. Patients were grouped into normal, sarcopenic, SO and obese groups, using the Asian Working Group for Sarcopenia 2019 criteria and waist circumference cut-offs from the National Cholesterol Education Program (NCEP) for obesity. SARC-CalF+AC (cut-off ≥ 11) was scored for all participants based on the sum of SARC-F scores and presence of low calf-circumference and/or MUAC (10 points each if positive). We compared nutritional scores, body mass index (BMI), skeletal muscle index (SMI), gait-speed and handgrip strength of SAC-positive and SAC-negative across the four body composition groups.</p> <p>Results: The proportion of SAC-positive in normal, sarcopenic, sarcopenic obese and obese were 47.5%, 73.5%, 57.1% and 21.5% respectively. Compared to SAC negative, participants with SAC-positive had statistically significantly lower BMI in normal (mean\pmSD: 20.87\pm1.89kg/m² vs 22.43\pm1.74kg/m²; p=0.001), sarcopenic obese (22.99\pm1.75kg/m² vs 24.74\pm2.06kg/m²; p=0.022) and obese group (23.68\pm1.51kg/m² vs 26.60\pm2.97kg/m²; p<0.001). SMI was statistically significantly lower in normal (mean\pmSD: 5.00\pm0.79kg/m² vs 5.61\pm0.95kg/m²; p=0.008), sarcopenia (5.19\pm0.85kg/m² vs 5.95\pm0.65kg/m²; p=0.021) and obese group (5.31\pm0.59kg/m² vs 5.98\pm0.91kg/m²; p=0.001) with SAC-positive, though in SO group SMI was lower but not statistically significant (mean\pmSD: 4.92\pm0.39kg/m² vs 5.30\pm0.59kg/m²; p=0.055). The gait speed and handgrip strength were not statistically significant across the four groups.</p> <p>Conclusion: Compared to SAC-negative, SAC-positive participants had lower muscle mass in absence of lower muscle function, suggesting that SARC-CalF+AC</p>	

may over-identify participants with malnourishment, especially in non-SO body composition groups.

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