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Association of sarcopenic obesity with multimorbidity: cross-sectional study of UK Biobank cohort

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Sarcopenic obesity is associated with higher risk of falls, hospitalizations, mortality, and a wide range of poor health outcomes[1]. However, its relationship with multimorbidity is less explored. This study aimed to investigate the association between sarcopenic obesity and multimorbidity across sexes.

In this cross-sectional analysis of the UK Biobank, we included 171,448 participants (53.1% women, mean age 55 years). Sarcopenic obesity, defined according to the EWGSOP2 classification[2], was analysed as the outcome. Multimorbidity was the predictor, determined by self-reported chronic conditions and categorized into none, 1, 2, 3, 4, and 5+ diseases. Poisson regression with robust error was used to estimate the risk ratio and its 95% confidence intervals (RR, 95%CI). Analyses were adjusted for sociodemographic and lifestyle factors.

The prevalence of sarcopenic obesity increased with the number of chronic diseases in both men and women but varied significantly by sex (p-interaction = 0.030). Compared to individuals without chronic diseases, those with 5+ diseases exhibited prevalences of 55.7% in men and 51.2% in women. The prevalence of sarcopenic obesity increased by 94% (95% CI: 1.89, 2.00) for each additional chronic disease in women and 117% (95% CI: 2.09, 2.25) in men. Relative to those with no chronic conditions, individuals with 5+ diseases had 41.5 and 68.7-times higher prevalence of sarcopenic obesity in women and men, respectively.

Our findings showed a robust association between sarcopenic obesity and multimorbidity, which varies by sex, further studies is needed to examine the predictive utility of using multimorbidity to identify sarcopenia.

References
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