adjusted odds ratio (OR) = 0.62, 95% CI: 0.52 to 0.74) and a lower proportion of survived one year (45% vs 27%; OR=0.78, 0.63 to 0.89). Urgency of GP referral did not affect treatment intent or survival. Routes to diagnosis varied across the 30 cancer networks, with the proportion of patients diagnosed after emergency admission ranging from 8.7% to 32.3%.

Conclusion Outcomes for cancer patients are worse if diagnosed after emergency admission. Networks should examine the causes of large regional variations to reduce rates of diagnosis after emergency admission.

SARCOPENIC OBESITY AND RISK OF ALL-CAUSE AND CARDIOVASCULAR MORTALITY IN OLDER MEN

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Background Sarcopenic obesity refers to the age-associated loss of muscle mass coupled with high adiposity levels. Although it is known that both obesity and low muscle mass are associated with increased mortality, few studies to date have examined the combined effects of sarcopenia and obesity on all-cause or cardiovascular mortality. We examined the relationship between sarcopenic obesity and all-cause and cardiovascular mortality in older men.

Methods 4,252 men from the British Regional Heart Study, aged 60–79 years in 1998–2000, were followed prospectively until 2011 for mortality. At baseline, midarm muscle circumference (MAMC) measurement was used to provide information on muscle mass and measurement of bioelectrical impedance analysis (BIA) to provide fat free mass index. Obesity was assessed by measurement of body mass index (BMI), waist circumference (WC), and BIA (providing fat mass, FM, index). Participants were classified as either normal, sarcopenic, obese, or sarcopenic obese using varying measures of adiposity and muscle mass, since no consensus definition for sarcopenic obesity exists. Associations between the four sarcopenic obesity groups and mortality rates (all-cause and cardiovascular) were examined using Cox regression, adjusting for age, smoking, alcohol intake, social class and physical activity.

Results There were 1,456 deaths during follow-up (mean=10.1 years), 578 (40%) of which were cardiovascular. Obesity (assessed by BMI, WC and FM index) was not significantly associated with all-cause mortality, but BMI and WC were significantly associated with cardiovascular mortality (p<0.05). Low muscle mass (MAMC only) was significantly associated with all-cause mortality (p<0.001) but not with cardiovascular mortality. Sarcopenic obese men (MAMC ≤24.95cm; WC>102cm) had the greatest relative risk of all-cause mortality (RR: 1.66, 95% CI:1.23–2.25). Risks of all-cause mortality were also increased among men who were sarcopenic only (RR: 1.28, 95% CI:1.09–1.49) and obese only (RR:1.44, 95% CI:1.28–1.64) compared with normal men. Similar, though weaker, relationships were seen using MAMC and BMI to define sarcopenic obesity, but not when using combined BIA measures. Sarcopenic obese men had a less marked excess cardiovascular mortality risk (RR: 1.20, 95% CI:0.69–2.08), compared with obese men (RR: 1.35, 95% CI:1.09–1.67).

Conclusion Sarcopenic obese older men are at an increased risk of all-cause mortality compared with those with only sarcopenia or obesity or normal body composition. MAMC and WC appeared to be the best markers of muscle mass and obesity for predicting all-cause mortality, compared with BMI and BIA measures. The added effect of sarcopenia and obesity, however, did not have a synergistic effect on cardiovascular mortality. Efforts to promote healthy ageing in the elderly should focus on both preventing obesity and maintaining muscle mass.