

Supplementary information

Effects of low skeletal muscle mass and sarcopenic obesity on albuminuria: a 7-year longitudinal study

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Table S1. Baseline characteristics according to sarcopenic obese status (according to WC and SMI)

	Body composition				P value
	Optimal (n = 17,382)	Sarcopenic (n = 3,095)	Obese (n = 4,335)	Sarcopenic obese (n = 2,740)	
Age, years (SD)	49.3 (7.5)	53.2 (8.6)	48.5 (7.2)	50.6 (8.7)	< 0.001
Sex					< 0.001
Men, n (%)	9260 (61.2)	511 (3.4)	3840 (25.4)	1514 (10.0)	
Women, n (%)	8122 (65.4)	2584 (20.8)	495 (4.0)	1226 (9.9)	
Skeletal muscle mass index (SD)	31.9 (2.6)	26.6 (1.9)	31.4 (1.2)	27.2 (2.5)	< 0.001
Men	33.5 (1.8)	29.3 (1.1)	31.6 (0.9)	28.8 (1.1)	
Women	29.7 (1.8)	25.8 (1.1)	27.9 (0.6)	24.3 (1.5)	
Body weight, kg (SD)	63.7 (10.3)	60.8 (8.4)	85.3 (6.9)	80.8 (10.8)	< 0.001
BMI, kg/m² (SD)	22.7 (2.4)	24.1 (2.0)	28.6 (0.9)	29.6 (2.1)	< 0.001
Waist circumference, cm (SD)	80.8 (8.1)	82.4 (7.4)	95.5 (4.8)	96.3 (7.4)	< 0.001
Current smoker, n (%)	3117 (22.0)	159 (5.9)	1338 (41.2)	528 (24.9)	< 0.001
Regular exercise, n (%)	3170 (19.2)	526 (18.2)	583 (14.2)	416 (16.5)	< 0.001
SBP, mmHg (SD)	115.6 (15.3)	119.3 (16.2)	123.3 (14.3)	125.2 (15.5)	< 0.001
DBP, mmHg (SD)	72.6 (11.1)	72.8 (10.9)	78.1 (10.5)	77.7 (10.6)	< 0.001
Total cholesterol, mg/dL (SD)	194.6 (32.9)	204.5 (35.4)	197.4 (34.4)	203.3 (36.7)	< 0.001
HDL-C, mg/dL (SD)	57.0 (14.7)	57.0 (13.9)	46.5 (10.5)	49.4 (11.7)	< 0.001

Triglycerides, mg/dL (SD)	116.9 (71.5)	125.6 (69.5)	172.9 (107.7)	162.4 (90.3)	< 0.001
LDL-C, mg/dL (SD)	121.6 (29.1)	129.5 (31.3)	127.2 (29.0)	130.8 (31.3)	< 0.001
Fasting glucose, mg/dL (SD)	93.2 (15.7)	95.5 (17.8)	100.1 (18.4)	101.9 (21.0)	< 0.001
HbA1c, % (SD)	5.4 (0.6)	5.6 (0.6)	5.7 (0.7)	5.8 (0.8)	< 0.001
CRP, mg/L (SD)	0.11 (0.31)	0.14 (0.40)	0.14 (0.23)	0.18 (0.29)	< 0.001
Insulin, uIU/mL (SD)	7.5 (3.9)	8.9 (4.1)	11.1 (5.4)	12.6 (6.4)	< 0.001
C-peptide, ng/mL (SD)	1.62 (0.66)	1.83 (0.69)	2.50 (0.86)	2.63 (0.96)	< 0.001
HOMA-IR (SD)	1.76 (1.07)	2.14 (1.16)	2.76 (1.44)	3.23 (2.06)	< 0.001
BUN, mg/dL (SD)	13.4 (3.4)	13.4 (3.4)	14.3 (3.4)	13.9 (3.4)	< 0.001
Creatinine, mg/dL (SD)	0.88 (0.16)	0.78 (0.14)	1.00 (0.13)	0.88 (0.16)	< 0.001
eGFR, mL/min per 1.73m² (SD)	83.8 (13.0)	85.7 (14.0)	80.6 (11.9)	84.8 (13.7)	< 0.001
Urinary albumin-to-creatinine ratio, mg/g (SD)	6.3 (5.3)	7.3 (5.8)	7.0 (6.2)	8.0 (6.3)	< 0.001

BMI body mass index, *BUN* blood urea nitrogen, *CRP* c-reactive protein, *DBP* diastolic blood pressure, *eGFR* estimated glomerular filtration rate, *HDL-C* high-density lipoprotein cholesterol, *HOMA-IR* homeostasis model assessment of insulin resistance, *LDL-C* low-density lipoprotein cholesterol, *SBP* systolic blood pressure, *SD* standard deviation, *SMI* skeletal muscle mass index, *WC* waist circumference

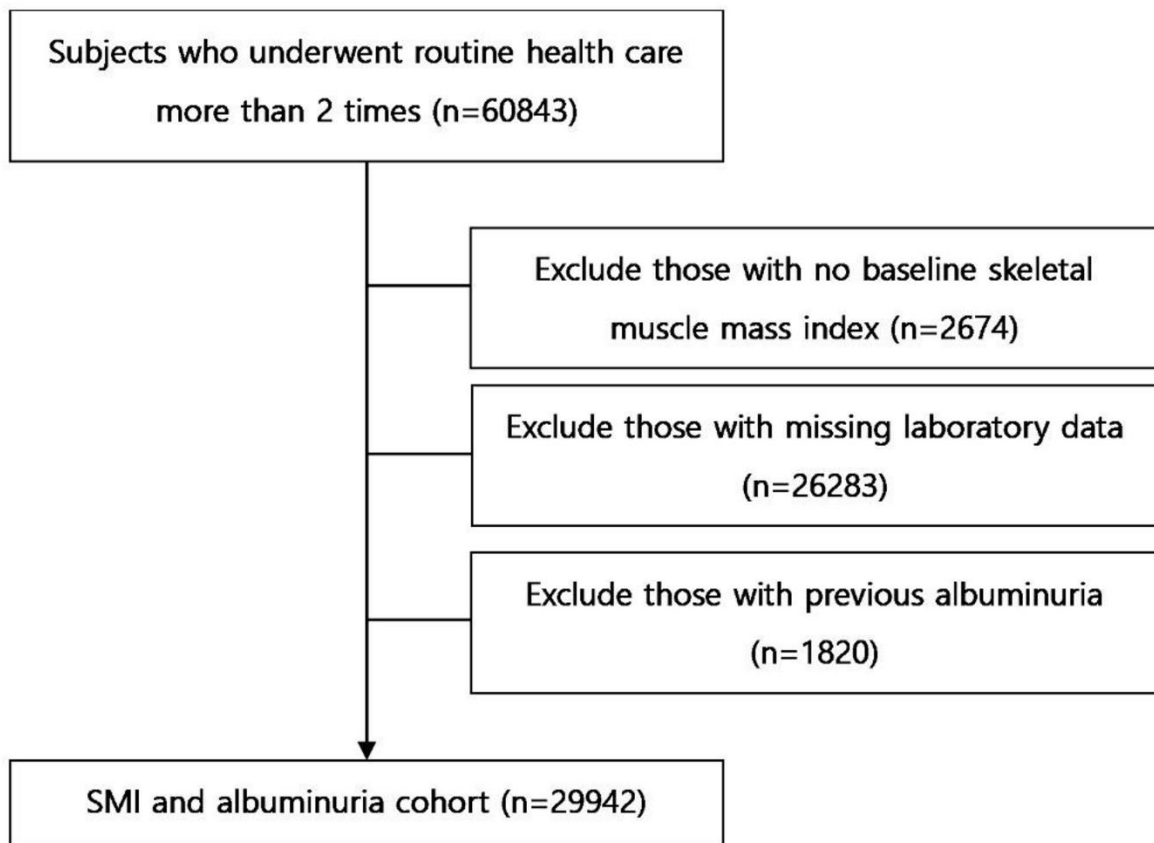


Figure S1 Flowchart of numbers included in the study.