

Supplemental Material

Table S1: Comorbidities, n (%)

	Overall n = 176	Controls = 88	n	Cases = 88	n	p-value ^a
Arterial hypertension	102 (58)	55 (62.5)		47 (53.4)		0.256
Dyslipidemia	76 (43.2)	38 (43.2)		38 (43.2)		1
Fractures	64 (36.4)	37 (42)		27 (30.7)		0.212
Wrist	8 (4.5)	6 (6.8)		2 (2.3)		0.289
Vertebral	1 (0.6)	0		1 (1.1)		1
Hip	1 (0.6)	1 (1.1)		0		1
Others	54 (30.7)	30 (34.1)		24 (27.3)		0.429
Osteoarthritis	49 (27.8)	28 (31.8)		21 (23.9)		0.324
Cataracts	43 (24.4)	27 (30.7)		16 (18.2)		0.054
Prostatic hyperplasia ^b	16 (22.9)	10 (28.6)		6 (7.1)		0.344
Diabetes mellitus	37 (21)	20 (22.7)		17 (19.3)		0.700
Glaucoma	13 (7.4)	5 (5.7)		8 (9.1)		0.581
Asthma/COPD	11 (6.3)	7 (7.9)		4 (4.5)		0.453
Hypothyroidism	8 (4.5)	6 (6.8)		2 (2.3)		0.289
Heart failure	7 (4)	6 (6.8)		1 (1.1)		0.125
Gastroduodenal ulcer	7 (4)	4 (4.5)		3 (3.4)		1
Prostate cancer ^b	2 (2.9)	0		2 (5.7)		1
CAD	5 (2.8)	3 (3.4)		2 (2.3)		1
Breast cancer ^c	2 (1.9)	0		2 (3.8)		0.500
Parkinson	2 (1.1)	0		2 (2.3)		0.500
Uterus cancer ^c	1 (0.9)	1 (1.9)		0		1
Epilepsy	1 (0.6)	1 (1.1)		0		1
Hyperthyroidism	1 (0.6)	0		1 (1.1)		1
Chronic kidney disease	1 (0.6)	1 (1.1)		0		1
Colorectal cancer	0	0		0		-
Dementia	0	0		0		-
Lung cancer	0	0		0		-
PAD	0	0		0		-
Stroke	0	0		0		-

Notes: n (%) = all variables in the table are presented with number (n) and percentage (%) if n>0; COPD = chronic obstructive pulmonary disease; CAD = coronary artery disease; PAD = peripheral artery disease; ^a = McNemar test; ^b = percentage within men; ^c = percentage within women.

Table S2: Geriatric syndromes

	Overall n = 176	Controls n = 88	Cases n = 88	p-value ^a
Immobility, n (%)	1 (0.6)	0	1 (1.1)	1
Bowel control ^b , n (%)	1 (0.6)	1 (1.1)	0	1
Bladder control ^b , n (%)	2 (1.2)	1 (1.1)	1 (1.1)	1
Cognitive impairment ^c , n (%)	3 (1.7)	2 (2.3)	1 (1.1)	0.500
Delirium, n (%)	0	0	0	-
Anxiety, n (%)	33 (18.8)	21 (23.9)	12 (13.6)	0.137
Depression, n (%)	38 (21.6)	18 (20.5)	20 (22.7)	0.850
Insomnia, n (%)	59 (34.9)	37 (44.6)	22 (25.6)	0.030*
Falls 12 months, n (%)	34 (21.1)	18 (22.2)	16 (19.8)	0.148
Falls 6 months, n (%)	22 (13.8)	12 (15)	10 (12.5)	1
Falls 3 months, n (%)	14 (8.7)	9 (11.1)	5 (6.3)	0.424
Hearing impairment, n (%)	15 (8.5)	7 (8)	8 (9.1)	1
Visual impairment, n (%)	26 (14.8)	17 (19.3)	9 (10.2)	0.134
No nutritional risk, n (%)	132 (75)	65 (73.9)	67 (76.1)	0.819
Nutritional risk, n (%)	44 (25)	23 (26.1)	21 (23.8)	0.819
High nutritional risk, n (%)	4 (2.3)	3 (3.4)	1 (1.1)	0.250
Polypharmacy, n (%)	67 (38.1)	43 (48.9)	24 (27.3)	0.003*
Pain ^d , n (%)	61 (34.7)	38 (43.2)	23 (26.1)	0.029*
Days/week, median (IQR)	5 (4)	6 (3)	4.5 (4)	0.581
VAS, mean $\pm$ SD	5.2 $\pm$ 2.1	5.5 $\pm$ 2.1	4.7 $\pm$ 1.9	0.402
Constipation, n (%)	35 (19.9)	16 (18.2)	19 (21.6)	0.571
Dysphagia, n (%)	0	0	0	-
Pressure ulcers, n (%)	0	0	0	-

Notes: n (%) = number and percentage for categorical variables if n>0; IQR= interquartile range; SD = standard deviation; VAS = visual analog scale; * = p<0.05; ^a = McNemar test for categorical variables, Student's t-test for related samples for quantitative variables with normal distribution, Wilcoxon signed rank test for matched samples for non-normal quantitative variables; ^b = occasional incontinence; ^c = age and education adjusted; ^d = 2 days per week or more;

Table S3: Pearson correlations among total, LDL cholesterol and Body mass index

Overall Sample				
	Total cholesterol	Coefficient	-0.203	
		p-value	0.007	
	LDL-cholesterol	Coefficient	-0.159	
		p-value	0.036	
	Case-group			
		Total cholesterol	Coefficient	-0.098
p-value			0.364	
LDL-cholesterol		Coefficient	-0.113	
		p-value	0.298	
Control-group				
	Total cholesterol	Coefficient	-0.241	
		p-value	0.024	
	LDL-cholesterol	Coefficient	-0.148	
		p-value	0.169	

Table S4: Body mass index, IL-6 and frailty

	Robusts	Prefrail	Frail	p- value*
	% within group			
BMI				0.346
Underweight	0.0	80.0	20.0	
Normal weight	23.3	60.0	16.7	
Overweight	30.4	57.0	12.7	
Obese	16.4	65.6	18.0	
	mean (Standard deviation)			
IL-6	1.33 (1.13)	1.41 (0.91)	1.60 (0.84)	0.185

Notes: * Chi Square for BMI and Kruskal Wallis for Interleukin-6 (IL-6)

Table S5: Lifestyle habits and frailty

		Robusts	Prefrail	Frail	p- value*
		% within group			
Current Smoker					0.168
	No	22.9	63.4	13.7	
	Yes	30.4	43.5	26.1	
Alcohol					0.481
	No	24.4	58.3	17.3	
	Yes	21.7	67.4	10.9	
Physical exercise					0.174
	No	18.9	58.5	22.6	
	Yes	26.0	61.8	12.2	
Physical activity					0.000
	Mild	12.5	65.6	21.9	
	Moderate or vigorous	37.3	54.7	8.0	

Notes: * Chi Square

Table S6: Sarcopenia patients according to their BMI				
BMI	Sarcopenia		Cases	Controls
	N	%	N	%
Underweight	2	18,2	1 (16.7)	1 (20)
Normal weight	7	63,6	4 (66.7)	3 (60)
Overweight	2	18,2	1 (16.7)	1 (20)
Obese	0	0	0	0
Total	11	100	6	5

Notes: N = number of patients. % = percentage. BMI = body mass index

Table S7: Body mass index, Ldl and total cholesterol

	Obese	Mean	Standard deviation	p-value
LDL-cholesterol	No	118,5	35,9	0,163
	Yes	110,7	34,1	
Total cholesterol	No	201,9	39,6	0,197
	Yes	193,8	39,4	
	Overweight			
LDL-cholesterol	No	112,4	34,2	0,163
	Yes	119,9	36,5	
Total cholesterol	No	197,8	39,4	0,618
	Yes	200,8	40,0	
	Normal weight			
LDL-cholesterol	No	116,7	36,7	0,484
	Yes	111,7	28,4	
Total cholesterol	No	198,7	40,4	0,767
	Yes	201,1	35,9	
	Underweightht			
LDL-cholesterol	No	115,2	34,4	0,159
	Yes	137,8	60,6	
Total cholesterol	No	198,3	39,0	0,126
	Yes	225,8	54,4	

Figure S1. Charlson index; Differences between matched case-control pairs.

Y axis: percentage of pairs.

X axis: Result of the subtraction of Charlson of the case minus Charlson of the control

Red columns: Percentage of pairs whose cases have less Charlson Index than controls

Grey columns: Percentage of pairs with no differences

Blue columns: Percentage of pairs whose cases have higher Charlson Index than controls

Significance with Wilcoxon matched pair test.

Panel A = Overall sample.

Panel B = Over 70 years old pairs.

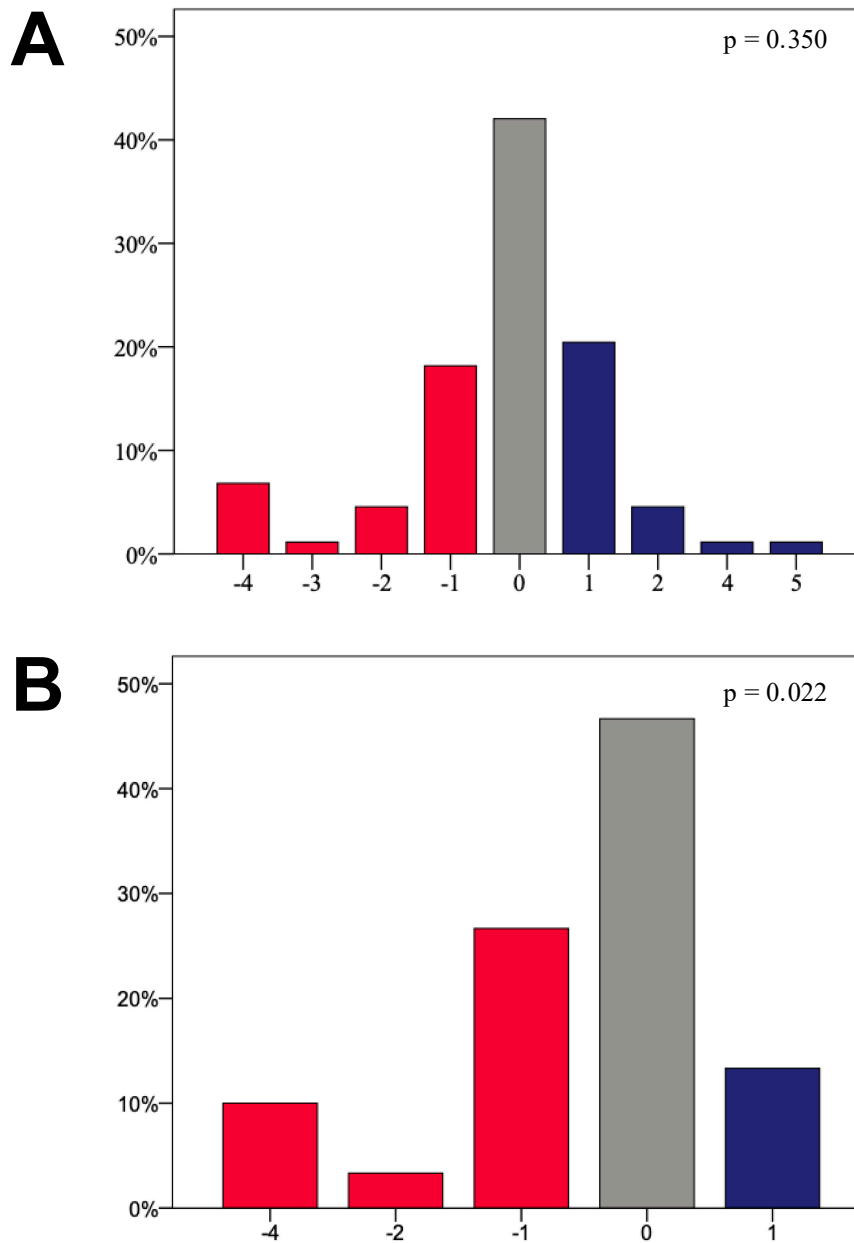


Figure S2. Charlson index.

Y axis: Mean of Charlson index.

X axis: Cases (red). Controls (blue).

Error bars represent: 95% confidence intervals.

Panel A = Overall sample.

Panel B = Over 70 years old pairs.

