

## Supplementary material

**Table 1.** Baseline information between sarcopenia group and non-sarcopenia group

	Non-sarcopenia group (n=157)	sarcopenia group (n=22)	<i>P</i>
<b>General information</b>			
Gender (men (n, %))	41, 26.1%	8, 36.4%	0.313
Age (year)	68 (64, 77)	79 (74, 82)	<b>&lt;0.001</b>
BMI (kg/m <sup>2</sup> )	23.8 (22.3, 25.8)	22.1 (20.1, 24.3)	<b>0.005</b>
<b>Chronic diseases</b>			
Diabetes (n, %)	26, 16.6%	4, 18.2%	1.000
Hypertension (n, %)	80, 51%	12, 54.5%	0.752
coronary heart disease (n, %)	34, 21.7%	8, 36.4%	0.127
Chronic renal dysfunction (n, %)	3, 1.9%	4, 18.2%	<b>0.005</b>
osteoporosis (n, %)	68, 43.3%	8, 36.4%	0.537
<b>Biochemical data</b>			
Hemoglobin (g/L)	140 (134, 149)	138 (132, 143)	0.343
Albumin (g/L)	47.3 (45.8, 49.0)	45.8 (44.0, 46.9)	<b>0.001</b>
Creatinine (umol/L)	69 (61, 81)	77.5(59, 89)	0.166
Fasting glucose (mmol/L)	5.34 (4.89, 5.82)	5.39 (4.90, 6.28)	0.433

Notes: Mann-whitney U test was used for comparison between two groups. The data were shown as median and quartile (M(P25,P75)). Chi-square test is used for categorical data. Bold means  $P < 0.05$ , bold + italics means  $P < 0.01$ .

Abbreviations: BMI, body mass index.

**Table 2.** differences between sarcopenia group and non-sarcopenia group when grip strength of cut-off point for sarcopenia was 28 kg in male.

	Non-sarcopenia group	sarcopenia group	
male	n=39	n=10	P
Age	68(65, 77)	79(73, 83)	<b>0.008</b>
BMI	25.1(23.1, 27.5)	21.9(20.7, 24.4)	<b>0.009</b>
SMI	6.7(5.8, 7.8)	5.7(5.1, 6.1)	<b>0.007</b>
Grip strength	37.6(34.3, 43.1)	27.0(19.7, 32.4)	<b>&lt;0.001</b>
Gait speed	1.3(1.1, 1.5)	0.9(0.6, 1.2)	<b>0.006</b>
FT	0.26(0.18, 0.34)	0.20(0.15, 0.27)	0.449
MT	2.21(2.05, 2.65)	2.06(1.88, 2.11)	<b>0.017</b>
CSA	9.32(7.61, 10.75)	7.03(6.12, 8.09)	<b>0.005</b>

Notes: Mann-whitney U test was used for comparison between two groups. The data were shown as median and quartile (M(P25,P75)). Bold means P <0.05, bold + italics means P <0.01.

Abbreviations: BMI, body mass index; FT, fat thickness; MT, muscle thickness; CSA, cross-sectional area.

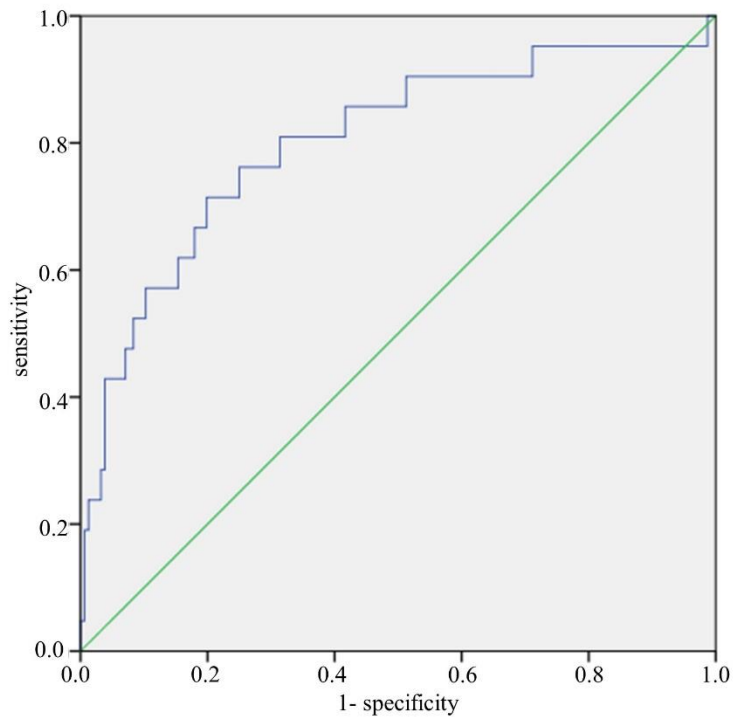
**Table 3.** Binary logistic regression analysis for sarcopenia when grip strength of cut-off point for sarcopenia was 28 kg in male.

variable	B	Wald	P	OR	95%CI
<b>Gender</b>					
(women)	<b>-2.088</b>	<b>5.761</b>	<b>0.016</b>	<b>0.124</b>	<b>0.023-0.682</b>
<b>Age(year)</b>	<b>0.123</b>	<b>10.114</b>	<b>0.001</b>	<b>1.131</b>	<b>1.048-1.220</b>
BMI	-0.092	0.642	0.423	0.913	0.730-1.142
FT(mm)	-0.494	2.140	0.144	0.610	0.315-1.183
MT(mm)	0.176	1.368	0.242	1.193	0.888-1.603
<b>CSA(cm2)</b>	<b>-0.863</b>	<b>5.627</b>	<b>0.018</b>	<b>0.422</b>	<b>0.207-0.861</b>

Notes: age, sex, BMI, MT, FT, and CSA were included in the binary logistic regression analysis of sarcopenia.

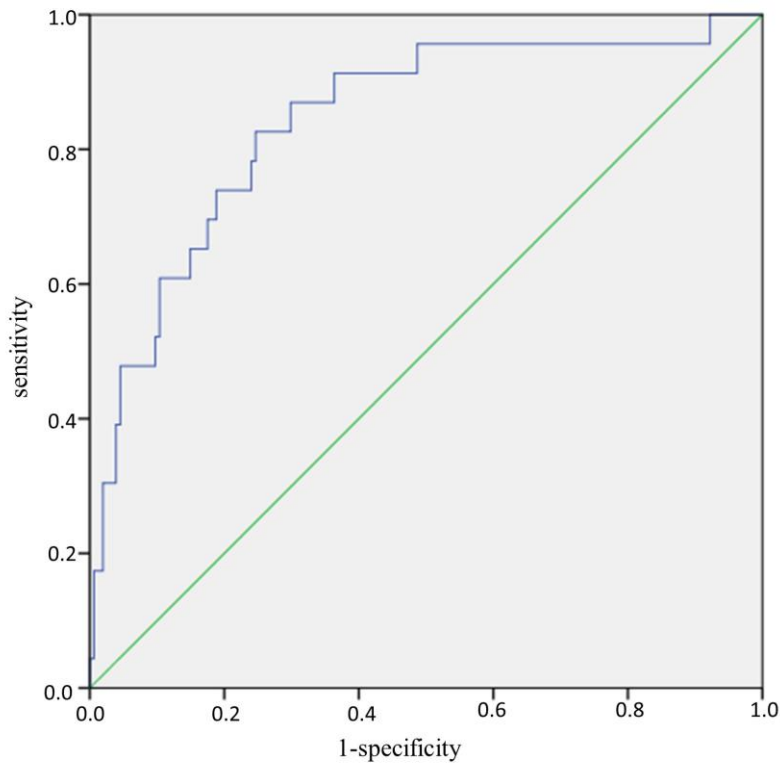
Abbreviations: BMI, body mass index; FT, fat thickness; mm, millimeter; MT, muscle thickness; CSA, cross-sectional area; cm, centimeter.

**Figure 1.** ROC curves of the equation consisting of BMI, FT, MT, and CSA in predicting sarcopenia.



Note: AUC was 0.802 (95%CI: 0.688-0.916,  $P < 0.001$ ) and the prediction equation consisting of BMI, FT, MT, and CSA is:  $\text{logit}(P) = 2.416 - 0.095 \cdot \text{BMI} - 0.798 \cdot \text{FT} + 0.231 \cdot \text{MT} - 0.693 \cdot \text{CSA}$ ,  $P = e^{\text{logit}(P)} / (1 + e^{\text{logit}(P)})$ . The blue line is the tracing of ROC analysis of equation in predicting sarcopenia, the green line is the baseline. Abbreviations: ROC, receiver operating characteristic.

**Figure 2.** ROC curves of the equation consisting of gender, age and CSA in predicting sarcopenia when grip strength of cut-off point for sarcopenia was 28 kg in male.



Note: when grip strength of cut-off point for sarcopenia was 28 kg in male, AUC was 0.842 (95%CI: 0.752-0.933,  $P < 0.001$ ) and the prediction equation is:  $\text{logit}(P) = -4.799 + 0.115 * \text{age} - 2.585 * \text{gender (man=0, woman=1)} - 0.657 * \text{CSA}$ ,  $P = \frac{e^{\text{logit}(P)}}{1 + e^{\text{logit}(P)}}$ . The blue line is the tracing of ROC analysis of equation in predicting sarcopenia, the green line is the baseline.

Abbreviations: ROC, receiver operating characteristic; AUC, area under curve.