

Table 1. The characteristics of patients

Height, cm	mean (SD)	160.7 (8.6)
Weight, kg	mean (SD)	57.6 (10.9)
BSA, m <sup>2</sup>	mean (SD)	1.59 (0.16)
BMI, kg/m <sup>2</sup>	mean (SD)	22.2 (3.2)
Age, years	≤ 68	388
	> 68	454
Sex	Female	280
	Male	562
Smoking status	Never	246
	Current or former	596
FEV <sub>1.0</sub> , % of predicted	mean (SD)	103.1 (21.8)
DL <sub>CO</sub> , % of predicted	mean (SD)	109.2 (28.7)
Tumor size, cm	mean (SD)	3.0 (1.7)
Pathological N status	N0	677
	N1/2	165
Surgical procedure	Pneumonectomy	28
	Bilobectomy	20
	Lobectomy	651
	Segmentectomy	91
	Wedge resection	52
Histological type	Adenocarcinoma	565
	Squamous cell carcinoma	206
	Others	71
Pathological stage	IA	322
	IB	266
	IIA	101
	IIB	62
	IIIA	91

SD, standard deviation; BSA, body surface area; BMI, body mass index; FEV<sub>1.0</sub>, forced expiratory volume in one second; DL<sub>CO</sub>, diffusing capacity of the lung for carbon monoxide

Table 2. The univariate Cox regression analysis and the separation indexes of the physique-adjusted and non-adjusted tumor size models

		Univariate						
	Category	Pati ents (n)	5-year survival rate (%)	HR	95% CI	P-value	Regression coefficient	SEP
Actual tumor size	≤ 2 cm	268	88	1.00			0	1.937
	2-3 cm	254	80	1.89	1.20-2.98	0.0060	0.637	
	3-5 cm	233	68	2.99	1.94-4.60	< 0.0001	1.095	
	5-7 cm	59	60	5.14	2.99-8.83	< 0.0001	1.637	
	> 7 cm	28	59	4.66	2.27-9.57	< 0.0001	1.539	
Height-adjusted tumor size	≤ 2 cm	249	90	1.00			0	2.236
	2-3 cm	267	79	2.32	1.43-3.78	0.0007	0.842	
	3-5 cm	229	69	3.49	2.18-5.59	< 0.0001	1.250	
	5-7 cm	68	64	5.45	3.11-9.57	< 0.0001	1.696	
	> 7 cm	29	57	5.84	2.84-12.01	< 0.0001	1.765	
Weight-adjusted tumor size	≤ 2 cm	253	91	1.00			0	2.146
	2-3 cm	244	78	2.20	1.36-3.56	0.0013	0.788	
	3-5 cm	238	71	3.18	2.01-5.03	< 0.0001	1.157	
	5-7 cm	66	64	4.49	2.55-7.91	< 0.0001	1.502	
	> 7 cm	41	52	6.39	3.52-11.63	< 0.0001	1.855	
BSA-adjusted tumor size	≤ 2 cm	243	90	1.00			0	2.077
	2-3 cm	264	78	2.17	1.36-3.48	0.0013	0.775	
	3-5 cm	237	71	2.95	1.86-4.67	< 0.0001	1.082	
	5-7 cm	67	63	4.49	2.56-7.87	< 0.0001	1.502	
	> 7 cm	31	56	5.67	2.90-11.11	< 0.0001	1.735	
BMI-adjusted tumor size	≤ 2 cm	257	91	1.00			0	2.169
	2-3 cm	243	76	2.40	1.49-3.85	0.0003	0.875	
	3-5 cm	236	73	3.03	1.91-4.81	< 0.0001	1.109	
	5-7 cm	68	62	4.62	2.64-8.09	< 0.0001	1.530	
	> 7 cm	38	51	6.94	3.78-12.74	< 0.0001	1.937	
Sex-height-adjusted tumor size	≤ 2 cm	255	90	1.00			0	2.125
	2-3 cm	260	79	2.17	1.35-3.48	0.0014	0.775	
	3-5 cm	232	69	3.28	2.08-5.19	< 0.0001	1.188	
	5-7 cm	66	63	5.14	2.97-8.91	< 0.0001	1.637	
	> 7 cm	29	57	5.50	2.70-11.20	< 0.0001	1.705	

HR, hazard ratio; CI, confidence interval; SEP, separation index; BSA, body surface area; BMI, body mass index

Table 3. The univariate Cox regression analysis and the separation indexes of the physique-adjusted and non-adjusted tumor size models in 677 pN0 patients.

		Univariate						
	Category	Pati ents (n)	5-year survival rate (%)	HR	95% CI	P-value	Regression coefficient	SEP
Actual tumor size	≤ 2 cm	249	89	1.00			0	1.646
	2-3 cm	207	84	1.61	0.96-2.70	0.0679	0.478	
	3-5 cm	163	75	2.40	1.45-3.98	0.0005	0.878	
	5-7 cm	35	65	5.40	2.84-10.28	< 0.0001	1.687	
	> 7 cm	23	60	4.79	2.15-10.64	0.0009	1.566	
Height-adjusted tumor size	≤ 2 cm	232	91	1.00			0	1.891
	2-3 cm	218	82	2.02	1.17-3.48	0.0094	0.704	
	3-5 cm	163	75	2.84	1.66-4.87	< 0.0001	1.046	
	5-7 cm	41	69	5.23	2.71-10.12	< 0.0001	1.655	
	> 7 cm	23	60	5.58	2.45-12.71	0.0004	1.720	
Weight-adjusted tumor size	≤ 2 cm	231	91	1.00			0	1.947
	2-3 cm	200	81	2.16	1.24-3.74	0.0054	0.769	
	3-5 cm	176	78	2.76	1.61-4.73	0.0001	1.016	
	5-7 cm	40	68	4.55	2.29-9.01	< 0.0001	1.515	
	> 7 cm	30	58	6.84	3.39-13.78	< 0.0001	1.922	
BSA-adjusted tumor size	≤ 2 cm	225	90	1.00			0	1.818
	2-3 cm	214	81	1.98	1.16-3.38	0.0107	0.683	
	3-5 cm	172	79	2.41	1.41-4.13	0.0009	0.884	
	5-7 cm	40	69	4.28	2.17-8.44	0.0001	1.455	
	> 7 cm	26	56	6.41	3.08-13.33	< 0.0001	1.859	
BMI-adjusted tumor size	≤ 2 cm	234	92	1.00			0	2.035
	2-3 cm	199	78	2.51	1.45-4.35	0.0007	0.875	
	3-5 cm	172	79	2.75	1.57-4.78	0.0002	1.109	
	5-7 cm	46	66	4.66	2.36-9.17	< 0.0001	1.530	
	> 7 cm	26	56	7.79	3.77-16.08	< 0.0001	1.937	
Sex-height-adjusted tumor size	≤ 2 cm	238	90	1.00			0	1.780
	2-3 cm	212	83	1.85	1.09-3.14	0.0210	0.615	
	3-5 cm	162	75	2.61	1.54-4.42	0.0003	0.959	
	5-7 cm	42	67	4.91	2.60-9.25	< 0.0001	1.590	
	> 7 cm	23	56	5.21	2.31-11.72	< 0.0001	1.650	

HR, hazard ratio; CI, confidence interval; SEP, separation index; BSA, body surface area; BMI, body mass index

Table 4. The results of the multivariate Cox regression analysis of height for the OS

		HR	95% CI	P-value
Height	(1-SD increase)	0.77	0.62-0.96	0.0213
Age, years	≤ 68	1.00		
	> 68	1.21	0.87-1.70	0.2519
Sex	Female	1.00		
	Male	3.09	1.68-5.84	0.0002
Smoking status	Never	1.00		
	Current or former	0.97	0.54-1.79	0.9274
FEV <sub>1.0</sub> , % of predicted	(1-SD increase)	1.04	0.88-1.22	0.6714
DL <sub>CO</sub> , % of predicted	(1-SD increase)	0.67	0.57-0.79	< 0.0001
Tumor size, cm	(1-cm increase)	1.21	1.12-1.31	< 0.0001
Pathological N status	N0	1.00		
	N1/2	2.14	1.53-2.98	< 0.0001
Histological type	Adenocarcinoma	1.00		
	Squamous cell carcinoma	1.25	0.86-1.82	0.2424
	Others	2.01	1.19-3.25	0.0098

HR, hazard ratio; CI, confidence interval; SD, standard deviation; BMI, body mass index; FEV<sub>1.0</sub>, forced expiratory volume in one second; DL<sub>CO</sub>, diffusing capacity of the lung for carbon monoxide

Table 5. The results of the multivariate Cox regression analysis of BMI for the OS

		HR	95% CI	P-value
BMI	(1-SD increase)	0.82	0.70-0.96	0.0129
Age, years	≤ 68	1.00		
	> 68	1.40	1.02-1.92	0.0352
Sex	Female	1.00		
	Male	2.30	1.39-3.96	0.0010
Smoking status	Never	1.00		
	Current or former	0.90	0.50-1.64	0.7237
FEV <sub>1.0</sub> , % of predicted	(1-SD increase)	1.06	0.91-1.26	0.4387
DL <sub>CO</sub> , % of predicted	(1-SD increase)	0.68	0.58-0.80	< 0.0001
Tumor size, cm	(1-cm increase)	1.21	1.11-1.30	< 0.0001
Pathological N status	N0	1.00		
	N1/2	2.12	1.51-2.95	< 0.0001
Histological type	Adenocarcinoma	1.00		
	Squamous cell carcinoma	1.28	0.88-1.87	0.1884
	Others	1.88	1.11-3.05	0.0192

HR, hazard ratio; CI, confidence interval; BMI, body mass index; SD, standard deviation; FEV<sub>1.0</sub>, forced expiratory volume in one second; DL<sub>CO</sub>, diffusing capacity of the lung for carbon monoxide