

Figure S1 Distribution of propensity score before and after PSM. PSM, propensity score matching.

Table S1 The SMD between patients in two groups of SCLC patients before and after propensity score matching

Characteristics	Population before PSM			Population after PSM		
	Non-surgery group (n=33,850)	Surgery group (n=1,364)	SMD	Non-surgery group (n=1,014)	Surgery group (n=1,014)	SMD
Race, n (%)			0.096			0.011
White	29,089 (85.9)	1,215 (89.1)		904 (89.2)	905 (89.3)	
Black	3,261 (9.6)	104 (7.6)		75 (7.4)	76 (7.5)	
Other	1,500 (4.4)	45 (3.3)		35 (3.5)	33 (3.3)	
Sex, n (%)			0.072			0.059
Female	17,055 (50.4)	736 (54.0)		522 (51.5)	552 (54.4)	
Male	16,795 (49.6)	628 (46.0)		492 (48.5)	462 (45.6)	
Age (years), mean (SD)	66.07 (9.98)	66.48 (9.39)	0.042	66.78 (10.68)	66.64 (9.43)	0.013
Primary site, n (%)			0.497			0.074
Upper lobe	19,265 (56.9)	817 (59.9)		616 (60.7)	605 (59.7)	
Middle lobe	1,596 (4.7)	75 (5.5)		45 (4.4)	55 (5.4)	
Lower lobe	7,881 (23.3)	440 (32.3)		330 (32.5)	326 (32.1)	
Main bronchus	4,510 (13.3)	18 (1.3)		18 (1.8)	18 (1.8)	
Overlapping lesion	598 (1.8)	14 (1.0)		5 (0.5)	10 (1.0)	
Grade, n (%)			0.984			0.04
I	48 (0.1)	19 (1.4)		7 (0.7)	7 (0.7)	
II	103 (0.3)	52 (3.8)		20 (2.0)	20 (2.0)	
III	3,015 (8.9)	478 (35.0)		290 (28.6)	272 (26.8)	
IV	6,136 (18.1)	396 (29.0)		307 (30.3)	315 (31.1)	
Unknown	24,548 (72.5)	419 (30.7)		390 (38.5)	400 (39.4)	
Histology, n (%)			0.645			0.045
cSCLC	530 (1.6)	284 (20.8)		112 (11.0)	110 (10.8)	
pSCLC	955 (2.8)	43 (3.2)		28 (2.8)	36 (3.6)	
SCLC	32,365 (95.6)	1,037 (76.0)		874 (86.2)	868 (85.6)	
TNM stage, n (%)			1.865			0.079
I	1,064 (3.1)	647 (47.4)		364 (35.9)	396 (39.1)	
II	1,154 (3.4)	285 (20.9)		221 (21.8)	204 (20.1)	
III	10,539 (31.1)	313 (22.9)		322 (31.8)	300 (29.6)	
IV	21,093 (62.3)	119 (8.7)		107 (10.6)	114 (11.2)	
T stage, n (%)			1.236			0.056
T1	4,476 (13.2)	665 (48.8)		442 (43.6)	455 (44.9)	
T2	6,396 (18.9)	442 (32.4)		350 (34.5)	324 (32.0)	
T3	5,634 (16.6)	134 (9.8)		112 (11.0)	117 (11.5)	
T4	17,344 (51.2)	123 (9.0)		110 (10.8)	118 (11.6)	
N stage, n (%)			1.447			0.068
N0	5,185 (15.3)	845 (62.0)		549 (54.1)	549 (54.1)	
N1	2,584 (7.6)	246 (18.0)		176 (17.4)	198 (19.5)	
N2	19,326 (57.1)	261 (19.1)		274 (27.0)	255 (25.1)	
N3	6,755 (20.0)	12 (0.9)		15 (1.5)	12 (1.2)	
M stage, n (%)			1.353			0.025
M0	12,776 (37.7)	1,246 (91.3)		908 (89.5)	900 (88.8)	
M1	21,074 (62.3)	118 (8.7)		106 (10.5)	114 (11.2)	
Surgery of other sites, n (%)			0.001			0.013
Yes	1,023 (3.0)	41 (3.0)		23 (2.3)	25 (2.5)	
No	32,827 (97.0)	1,323 (97.0)		991 (97.7)	989 (97.5)	
Radiotherapy, n (%)			0.394			0.036
Yes	18,953 (56.0)	501 (36.7)		478 (47.1)	460 (45.4)	
No	14,897 (44.0)	863 (63.3)		536 (52.9)	554 (54.6)	
Chemotherapy, n (%)			0.235			0.05
Yes	27,375 (80.9)	967 (70.9)		769 (75.8)	747 (73.7)	
No	6,475 (19.1)	397 (29.1)		245 (24.2)	267 (26.3)	

SMD, standardized mean difference; PSM, propensity score matching; SD, standardized difference; cSCLC, combined small cell lung cancer; pSCLC, pure small cell lung cancer.

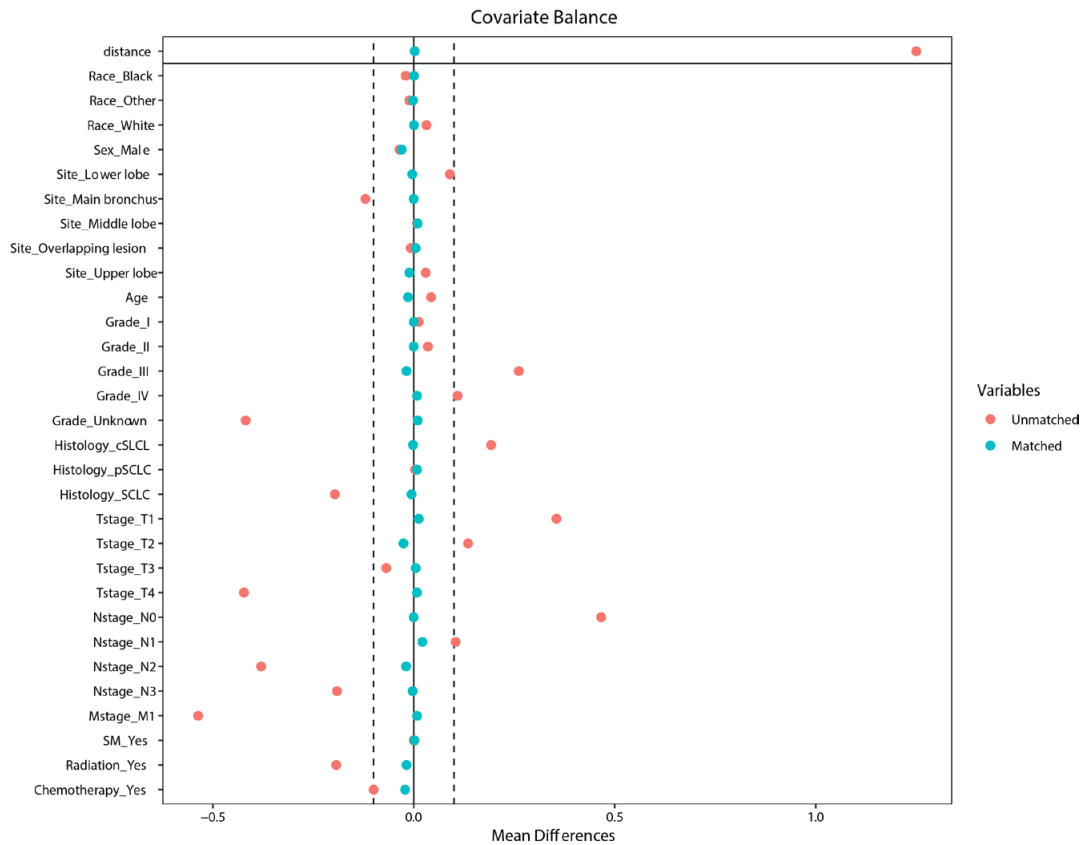


Figure S2 Love plot depicting the standard mean difference of covariates before and after propensity score matching. cSCLC, combined small cell lung cancer; pSCLC, pure small cell lung cancer; SCLC, small cell lung cancer; T, size of the tumor; N, extent of regional lymph node involvement; M, presence of metastasis; SM, surgical management for Other Sites.

Table S2 The 1-, 3-, 5-year survival rate of OS and CSS in population after propensity score matching

Category	1-year	P value	3-year	P value	5-year	P value
OS rate		<0.001		<0.001		0.02
Non-surgery group	53.25%		21.48%		15.80%	
Surgery group	77.77%		45.79%		35.70%	
CSS rate		<0.001		<0.001		0.01
Non-surgery group	58.65%		25.39%		20.85%	
Surgery group	80.96%		50.33%		42.53%	

OS, overall survival; CSS, cancer-specific survival.