

Table S1. Comparison of variables before and after PSM, n (%)

Characteristic	Before			After		
	ALK+ (n=39)	ALK- (n=11)	P	ALK+ (n=9)	ALK- (n=9)	P
Sex						
Male	17 (43.6)	6 (54.5)	0.733	4 (44.4)	4 (44.4)	1.000
Female	22 (56.4)	5 (45.5)		5 (55.6)	5 (55.6)	
Age						
<60 ys	22 (56.4)	8 (72.7)	0.489	7 (77.8)	7 (77.8)	1.000
≥60 ys	17 (43.6)	3 (27.3)		2 (22.2)	2 (22.2)	
pStage						
I	29 (74.4)	6 (54.5)	0.204	6 (66.7)	6 (66.7)	1.000
II	3 (7.7)	3 (27.3)		2 (22.2)	2 (22.2)	
III	7 (17.9)	2 (18.2)		1 (11.1)	1 (11.1)	

Table S2. TIME comparison based on surgical samples

Factor	ALK+	ALK-	P
TLS			
Absence	3 (33.3)	0 (0)	0.206
Presence	6 (66.7)	9 (100.0)	
TLS Location			
Peritumoral	3 (50.0)	4 (44.4)	1.000
Intratumoral	3 (50.0)	5 (55.6)	
TLS density (/mm ²)	0.10 (0.04, 0.27)	0.34 (0.00, 1.98)	0.026
TLS/tumor *10 ²	0.35 (0.17, 0.59)	1.61 (0.01, 6.92)	0.012
Single-TLS size *10 ² (mm ²)	3.02 (1.97, 4.70)	3.94 (2.10, 9.48)	0.272
tTh cell density (/mm ²)	57.65 (7.70, 141.55)	274.82 (0.87, 884.05)	0.026
tCTL density (/mm ²)	22.46 (5.16, 74.46)	172.83 (0.69, 464.59)	0.018
tB cell density (/mm ²)	36.08 (17.31, 101.84)	207.29 (1.17, 668.03)	0.012
tTh cell%	46.21±4.83	39.12±3.21	0.224
tCTL%	16.28±2.77	20.41±2.32	0.277
tB cell%	37.50±5.37	40.47±3.04	0.612
tTreg cell%			
<1%	4 (66.7)	2 (22.2)	0.349
1-10%	1 (16.7)	4 (44.4)	
10-50%	1 (16.7)	3 (33.3)	
tDC%			
<1%	1 (16.7)	1 (11.5)	1.000
1-10%	4 (66.7)	5 (55.6)	
10-50%	1 (16.7)	3 (33.3)	
tTAM%			
<1%	0 (0)	0 (0)	0.400
1-10%	5 (83.3)	9 (100.0)	
10-50%	1 (16.7)	0 (0)	
eTh cell density *10^-2 (/mm ²)	32.60 (11.04, 65.21)	30.10 (12.04, 110.35)	0.730
eCTL density *10^-2 (/mm ²)	9.59 (4.48, 19.82)	12.15 (7.67, 35.80)	0.340
eTAM density *10^-2 (/mm ²)	5.12 (1.02, 35.86)	3.07 (2.05, 20.49)	0.340
PD-L1 (TC)			
<1%	4 (44.4)	5 (55.6)	0.637
≥1%, <10%	5 (55.6)	3 (33.3)	
≥10%	0 (0)	1 (11.1)	

Table S3. The general characteristics of TLS in ALK+ LUAD, n (%)

Characteristic	Presence		P	Location		P
	+	-		Peritumoral	Intratumoral	
Sex						
Male	13 (43.3)	4 (44.4)	1.000	4 (30.8)	9 (52.9)	0.283
Female	17 (56.7)	5 (55.6)		9 (69.2)	8 (47.1)	
Age						
<60 ys	19 (63.3)	3 (33.3)	0.142	8 (61.5)	7 (41.2)	0.462
≥60 ys	11 (36.7)	6 (66.7)		5 (38.5)	10 (58.8)	
Tumor size						
≤1.5cm	15 (50.0)	7 (77.8)	0.251	8 (61.5)	9 (52.9)	0.721
>1.5cm	15 (50.0)	2 (22.2)		5 (38.5)	8 (47.1)	
Histologic differentiation						
Well	3 (10.0)	2 (22.2)	0.662	1 (7.7)	2 (11.8)	0.087
Moderate	17 (56.7)	5 (55.6)		5 (38.5)	12 (70.6)	
Poor	10 (33.3)	2 (22.2)		7 (53.8)	3 (17.6)	
Aerogenic spread						
Negative	24 (80.0)	6 (66.7)	0.406	10 (76.9)	14 (82.4)	1.000
Positive	6 (20.0)	3 (33.3)		3 (23.1)	3 (17.6)	
LVI						
Negative	22 (73.3)	7 (77.8)	1.000	8 (61.5)	14 (82.4)	0.242
Positive	8 (26.7)	2 (22.2)		5 (38.5)	3 (17.6)	
Pleural invasion						
Negative	26 (86.7)	9 (100.0)	0.556	10 (76.9)	16 (94.1)	0.290
Positive	4 (13.3)	0 (0)		3 (23.1)	1 (5.9)	
Node metastasis						
Negative	23 (76.7)	8 (88.9)	0.653	9 (69.2)	14 (82.4)	0.666
Positive	7 (23.3)	1 (11.1)		4 (30.8)	3 (17.6)	
pStage						
I	21 (70.0)	8 (88.9)	0.400	8 (61.5)	13 (76.5)	0.443
II+III	9 (30.0)	1 (11.1)		5 (38.5)	4 (23.5)	

Table S4. The characteristics of TLS in ALK+ LUAD, median (range)

Characteristic	Density /mm ²	P	TLS/tumor *10 ²	P	Single-TLS size *10 ² mm ²	P
Sex						
Male	0.31 (0.05, 1.18)	0.509	1.30 (0.15, 8.45)	0.245	4.09 (2.70, 7.18)	0.017
Female	0.25 (0.04, 1.80)		0.53 (0.17, 12.59)		2.64 (1.53, 26.40)	
Age						
<60 ys	0.19 (0.04, 0.82)	0.420	0.50 (0.15, 4.33)	0.077	3.11 (1.53, 16.62)	0.057
≥60 ys	0.26 (0.06, 1.80)		1.00 (0.19, 12.59)		4.70 (2.45, 26.40)	
Tumor size						
≤1.5cm	0.27 (0.05, 1.80)	0.006	0.69 (0.15, 11.50)	0.089	2.77 (1.53, 7.18)	0.202
>1.5cm	0.09 (0.04, 0.51)		0.32 (0.17, 12.59)		3.96 (1.89, 26.40)	
Histologic differentiation						
Well	0.25 (0.05, 0.31)	0.532	0.69 (0.15, 1.46)	0.532	2.77 (2.70, 4.70)	0.292
Moderate	0.27 (0.04, 1.80)		0.53 (0.17, 12.59)		3.11 (1.53, 26.40)	
Poor	0.16 (0.04, 1.18)		0.60 (0.20, 8.45)		4.44 (2.16, 16.62)	
Aerogenic spread						
Negative	0.22 (0.04, 1.80)	0.116	0.51 (0.15, 12.59)	0.050	3.00 (1.53, 26.40)	0.104
Positive	0.41 (0.08, 0.82)		1.88 (0.29, 4.33)		4.43 (3.63, 6.81)	
LVI						
Negative	0.26 (0.04, 1.80)	0.945	0.56 (0.15, 12.59)	0.534	3.26 (1.53, 26.40)	0.298
Positive	0.20 (0.04, 0.82)		0.60 (0.20, 4.33)		3.93 (2.16, 16.62)	
Pleural invasion						
Negative	0.27 (0.04, 1.80)	0.746	0.59 (0.15, 12.59)	0.576	3.57 (1.53, 26.40)	0.617
Positive	0.16 (0.09, 0.27)		0.54 (0.18, 1.00)		3.06 (2.05, 4.90)	
Node metastasis						
Negative	0.27 (0.04, 1.80)	0.666	0.53 (0.15, 12.59)	0.848	3.63 (1.53, 26.40)	0.737
Positive	0.19 (0.04, 0.82)		0.60 (0.20, 4.33)		3.50 (2.45, 16.62)	
pStage						
I	0.27 (0.04, 1.80)	0.349	0.59 (0.15, 12.59)	0.790	3.63 (1.53, 26.40)	0.756
II+III	0.12 (0.04, 0.82)		0.58 (0.20, 4.33)		3.50 (2.45, 16.62)	

Table S5. Densities of main TLS-ICs in ALK+ LUAD, median (range)

Characteristic	tTh cell /mm ²	P	tCTL cell /mm ²	P	tB cell /mm ²	P
Sex						
Male	76.48 (9.31, 525.91)	0.773	39.08 (6.01, 413.35)	0.536	139.52 (20.81, 1259.50)	0.320
Female	68.96 (5.35, 1914.30)		30.13 (5.16, 792.93)		65.39 (7.34, 1688.96)	
Age						
<60 ys	62.11 (5.35, 426.70)	0.158	30.13 (5.16, 210.35)	0.268	40.52 (7.34, 823.40)	0.085
≥60 ys	114.45 (9.31, 1914.30)		44.40 (6.01, 792.93)		139.52 (20.81, 1688.96)	
Tumor size						
≤1.5cm	114.45 (19.75, 1914.30)	0.007	50.64 (9.55, 792.93)	0.056	139.52 (28.72, 1688.96)	0.004
>1.5cm	44.00 (5.35, 1065.41)		27.52 (5.16, 622.65)		33.49 (7.34, 1487.39)	
Histologic differentiation						
Well	106.18 (19.75, 252.37)	0.844	17.48 (9.55, 25.63)	0.323	139.52 (28.72, 150.44)	0.949
Moderate	76.48 (7.70, 1914.30)		39.08 (5.16, 792.93)		74.08 (7.34, 1688.96)	
Poor	60.57 (5.35, 525.91)		28.83 (9.90, 413.35)		46.71 (14.39, 1259.50)	
Aerogenic spread						
Negative	62.61 (5.35, 1914.30)	0.432	27.76 (5.16, 792.93)	0.065	56.99 (7.34, 1688.96)	0.082
Positive	95.47 (43.97, 426.70)		89.80 (30.13, 210.35)		204.90 (39.05, 823.40)	
LVI						
Negative	69.80 (5.76, 1914.30)	0.982	33.53 (5.16, 792.93)	0.836	69.73 (7.34, 1688.96)	0.836
Positive	91.18 (5.35, 426.70)		28.83 (13.48, 210.35)		71.18 (19.72, 823.40)	
Pleural invasion						
Negative	85.47 (5.35, 1914.30)	0.271	33.53 (5.16, 792.93)	0.298	87.16 (14.39, 1688.96)	0.177
Positive	43.17 (24.95, 113.41)		22.46 (9.54, 44.40)		38.24 (7.34, 101.84)	
Node metastasis						
Negative	68.96 (7.70, 1914.30)	0.811	31.00 (5.16, 792.93)	0.848	74.08 (7.34, 1688.96)	0.598
Positive	76.48 (5.35, 426.35)		30.73 (9.90, 210.35)		40.52 (14.39, 823.40)	
pStage						
I	94.47 (7.70, 1914.30)	0.283	39.08 (5.16, 792.93)	0.372	100.24 (7.34, 1688.96)	0.193
II+III	52.19 (5.35, 426.70)		27.52 (6.84, 210.35)		33.49 (14.39, 823.40)	

Table S6. Proportions of main TLS-ICs in ALK+ LUAD, mean±SEM

Characteristic	tTh cell%	P	tCTL%	P	tB cell%	P
Sex						
Male	32.09±2.52	0.025	16.20±1.71	0.781	51.71±3.26	0.022
Female	44.52±4.15		15.56±1.53		39.93±3.42	
Age						
<60 ys	40.09±4.03	0.661	16.26±1.35	0.631	43.66±3.77	0.495
≥60 ys	37.48±3.32		15.11±2.06		47.41±2.87	
Tumor size						
≤1.5cm	39.75±2.65	0.830	13.98±1.41	0.100	46.27±2.27	0.643
>1.5cm	38.51±5.04		17.69±1.65		43.80±4.75	
Histologic differentiation						
Well	44.88±7.75	0.517	8.00±2.89	0.030	47.12±5.28	0.835
Moderate	40.65±3.53		15.72±1.08		43.63±3.53	
Poor	34.82±5.52		18.39±2.30		46.79±4.96	
Aerogenic spread						
Negative	41.18±3.20	0.146	15.38±1.24	0.422	43.45±2.88	0.227
Positive	30.94±4.63		17.68±2.69		51.38±5.65	
LVI						
Negative	39.92±3.05	0.650	15.28±1.25	0.424	44.80±2.90	0.885
Positive	36.97±6.64		17.35±2.47		45.67±5.93	
Pleural invasion						
Negative	37.73±3.04	0.208	15.37±1.11	0.299	46.90±2.70	0.066
Positive	48.22±6.01		18.86±4.60		32.92±6.04	
Node metastasis						
Negative	39.38±2.45	0.873	15.88±1.21	0.944	44.73±2.53	0.839
Positive	38.30±9.47		15.69±2.89		46.01±7.87	
pStage						
I	39.79±2.52	0.727	15.62±1.25	0.769	44.60±2.45	0.803
	37.60±7.57		16.35±2.45		46.05±6.79	

Table S7. Proportions of tTreg and tDC cells in ALK+ LUAD, n (%)

Characteristic	tTreg cell			P	tDC			P
	<1%	1%-10%	10%-50%		<1%	1%-10%	10%-50%	
Sex								
Male	6 (33.3)	5 (55.6)	2 (66.7)	0.467	1 (33.3)	9 (47.4)	3 (37.5)	0.867
Female	12 (66.7)	4 (44.4)	1 (33.3)		2 (66.7)	10 (52.6)	5 (62.5)	
Age								
<60 ys	12 (66.7)	5 (55.6)	2 (66.7)	0.853	2 (66.7)	11 (57.9)	6 (75.0)	0.845
≥60 ys	6 (33.3)	4 (44.4)	1 (33.3)		1 (33.3)	8 (42.1)	2 (25.0)	
Tumor size								
≤1.5cm	10 (55.6)	4 (44.4)	1 (33.3)	0.763	2 (66.7)	10 (52.6)	3 (37.5)	0.750
>1.5cm	8 (44.4)	5 (55.6)	2 (66.7)		1 (33.3)	9 (47.4)	5 (62.5)	
Histologic differentiation								
Well	1 (5.6)	1 (11.1)	1 (33.3)	0.406	1 (33.3)	1 (5.3)	1 (12.5)	0.264
Moderate	12 (66.7)	4 (44.4)	1 (33.3)		2 (66.7)	12 (63.2)	3 (37.5)	
Poor	5 (27.8)	4 (44.4)	1 (33.3)		0 (0)	6 (31.6)	4 (50.0)	
Aerogenous spread								
Negative	16 (88.9)	5 (55.6)	3 (100.0)	0.136	3 (100.0)	15 (78.9)	6 (75.0)	1.000
Positive	2 (11.1)	4 (44.4)	0 (0)		0 (0)	4 (21.1)	2 (25.0)	
LVI								
Negative	15 (83.3)	5 (55.6)	2 (66.7)	0.265	3 (100.0)	14 (73.7)	5 (62.5)	0.703
Positive	3 (16.7)	4 (44.4)	1 (33.3)		0 (0)	5 (26.3)	3 (37.5)	
Pleural invasion								
Negative	16 (88.9)	8 (88.9)	2 (66.7)	0.531	3 (100.0)	18 (94.7)	5 (62.5)	0.087
Positive	2 (11.1)	1 (11.1)	1 (33.3)		0 (0)	1 (5.3)	3 (37.5)	
Node metastasis								
Negative	14 (77.8)	7 (77.8)	2 (66.7)	1.000	3 (100.0)	15 (78.9)	5 (62.5)	0.543
Positive	4 (22.2)	2 (22.2)	1 (33.3)		0 (0)	4 (21.1)	3 (37.5)	
pStage								
I	13 (72.2)	7 (77.8)	1 (33.3)	0.364	3 (100.0)	13 (68.4)	5 (62.5)	0.704
II+III	5 (27.8)	2 (22.2)	2 (66.7)		0 (0)	6 (31.6)	3 (37.5)	

Table S8. Proportions of tTAM in ALK+ LUAD, n (%)

Characteristic	tTAM			P
	<1%	1%-10%	10%-50%	
Sex				
Male	3 (75.0)	9 (36.0)	1 (100.0)	0.181
Female	1 (25.0)	16 (64.0)	0 (0)	
Age				
<60 ys	3 (75.0)	16 (64.0)	0 (0)	0.536
≥60 ys	1 (25.0)	9 (36.0)	1 (100.0)	
Tumor size				
≤1.5cm	3 (75.0)	12 (48.0)	0 (0)	0.598
>1.5cm	1 (25.0)	13 (52.0)	1 (100.0)	
Histologic differentiation				
Well	1 (25.0)	2 (8.0)	0 (0)	0.738
Moderate	2 (50.0)	14 (56.0)	1 (100.0)	
Poor	1 (25.0)	9 (36.0)	0 (0)	
Aerogenic spread				
Negative	2 (50.0)	21 (84.0)	1 (100.0)	0.344
Positive	2 (50.0)	4 (16.0)	0 (0)	
LVI				
Negative	2 (50.0)	19 (76.0)	1 (100.0)	0.487
Positive	2 (50.0)	6 (24.0)	0 (0)	
Pleural invasion				
Negative	4 (100.0)	21 (84.0)	1 (100.0)	1.000
Positive	0 (0)	4 (16.0)	0 (0)	
Node metastasis				
Negative	4 (100.0)	18 (72.0)	1 (100.0)	0.652
Positive	0 (0)	7 (28.0)	0 (0)	
pStage				
I	4 (100.0)	16 (64.0)	1 (100.0)	0.496
II+III	0 (0)	9 (36.0)	0 (0)	

Table S9. Densities of stromal immune cells in ALK+ LUAD, median (range)

Characteristic		eTh cell *10^-2 /mm^2	P	eCTL cell *10^-2 /mm^2	P	eTAM *10^-2 /mm^2	P
TLS							
	Absence	34.11 (11.04, 62.70)	0.635	5.11 (1.92, 19.18)	0.046	4.10 (2.05, 10.25)	0.366
	Presence	29.60 (10.53, 95.31)		10.23 (3.20, 20.46)		3.67 (1.02, 35.86)	
Sex							
	Male	27.59 (10.53, 79.25)	0.377	8.31 (4.48, 20.46)	0.585	4.10 (1.02, 35.86)	0.154
	Female	35.87 (11.04, 95.31)		9.91 (1.92, 18.54)		3.07 (1.02, 10.25)	
Age							
	<60 ys	33.36 (11.04, 79.25)	0.878	10.87 (3.84, 20.46)	0.124	3.93 (1.02, 35.86)	0.967
	≥60 ys	27.59 (10.53, 95.31)		7.67 (1.92, 19.18)		4.10 (1.02, 10.25)	
Tumor size							
	≤1.5cm	32.60 (11.04, 79.25)	0.475	7.99 (1.92, 19.18)	0.077	3.07 (1.02, 8.20)	0.014
	>1.5cm	27.59 (10.53, 95.31)		11.50 (5.11, 20.46)		4.10 (1.02, 35.86)	
Histologic differentiation							
	Well	32.60 (13.04, 39.13)	0.093	4.48 (3.20, 13.43)	0.088	3.07 (2.05, 6.15)	0.348
	Moderate	40.13 (10.53, 95.31)		10.23 (1.92, 19.18)		3.33 (1.02, 10.25)	
	Poor	18.31 (11.04, 65.21)		7.99 (4.48, 20.46)		4.10 (2.05, 35.86)	
Aerogenic spread							
	Negative	33.36 (10.53, 95.31)	0.255	8.63 (1.92, 19.82)	0.588	3.67 (1.02, 35.86)	0.706
	Positive	23.07 (11.04, 57.69)		10.23 (5.11, 20.46)		4.10 (2.05, 10.25)	
LVI							
	Negative	34.11 (10.53, 95.31)	0.174	7.67 (1.92, 19.18)	0.365	3.59 (1.02, 10.25)	0.245
	Positive	20.82 (11.04, 65.21)		10.23 (4.48, 20.46)		4.10 (2.05, 35.86)	
Pleural invasion							
	Negative	32.60 (10.53, 95.31)	0.381	10.22 (1.92, 20.46)	0.841	4.10 (1.02, 10.25)	0.704
	Positive	16.55 (12.54, 65.21)		7.67 (4.48, 19.82)		3.84 (2.05, 35.86)	
Node metastasis							
	Negative	32.60 (10.53, 95.31)	0.235	9.59 (1.92, 20.46)	0.746	4.10 (1.02, 35.86)	0.932
	Positive	22.57 (11.04, 52.67)		8.95 (5.11, 18.54)		3.93 (2.05, 10.25)	
pStage							
	I	32.60 (11.04, 95.31)	0.232	9.59 (1.92, 20.46)	0.646	4.10 (1.02, 10.25)	0.887
	II+III	22.57 (10.53, 65.21)		8.95 (5.11, 19.82)		3.93 (1.02, 35.86)	

Table S10. The significance of TLS and ETLS-ICs on tumor size in ALK+ LUAD

Model	Variable	Univariate analysis				Multivariate analysis			
		P	HR	95% CI		P	HR	95% CI	
				Lower	Upper			Lower	Upper
Model 1	TLS density	0.214	0.341	0.062	1.861				
	TLS/tumor	1.000	1.000	0.146	6.839				
	Single-TLS size	0.107	1.942	0.866	4.355			-	
	TLS location	PT	Ref	1.000	-	-			
			IT	0.085	5.117	0.796	32.878		
Model 2	tB cell%	0.391	1.371	0.666	2.824				
	tTh cell%	0.827	1.085	0.522	2.254				
	tCTL%	0.207	1.704	0.745	3.896			-	
	tB-cell density	0.345	0.394	0.057	2.726				
	tTh-cell density	0.721	0.758	0.166	3.466				
	tCTL density	0.869	1.191	0.148	9.607				
Model 3	eTh-cell density	0.023	0.480	0.255	0.904				
	eCTL density	0.367	1.360	0.697	2.654			-	
	eTAM density	0.172	1.469	0.846	2.549				

PT: peritumoral; IT: intratumoral.

Table S11. The significance of TLS and ETLS-ICs on node metastasis in ALK+ LUAD

Model	Variable	Univariate analysis				Multivariate analysis			
		P	HR	95% CI		P	HR	95% CI	
				Lower	Upper			Lower	Upper
Model 1	TLS density	0.540	0.597	0.115	3.100	0.010	0.621	0.432	0.894
	TLS/tumor	0.735	1.413	0.191	10.454				
	Single-TLS size	0.667	0.859	0.429	1.721				
	TLS location	PT	Ref	1.000	-	-			
			IT	0.364	0.469	0.091	2.410		
Model 2	tB cell%	0.354	1.450	0.661	3.182				
	tTh cell%	0.277	0.611	0.251	1.487				
	tCTL%	0.432	0.692	0.276	1.735	0.007	0.599	0.414	0.868
	tB-cell density	0.137	0.177	0.018	1.731				
	tTh-cell density	0.280	2.757	0.439	17.332				
	tCTL density	0.645	1.715	0.172	17.088				
Model 3	eTh-cell density	0.074	0.533	0.267	1.064	0.001	0.577	0.416	0.802
	eCTL density	0.577	1.246	0.575	2.698				
	eTAM density	0.675	0.875	0.469	1.631				

PT: peritumoral; IT: intratumoral.

Table S12. The significance of TLS and ETLS-ICs on pStage in ALK+ LUAD

Model	Variable	Univariate analysis				Multivariate analysis			
		P	HR	95% CI		P	HR	95% CI	
				Lower	Upper			Lower	Upper
Model 1	TLS density	0.557	0.631	0.136	2.93	0.025	0.683	0.489	0.953
	TLS/tumor	0.794	1.282	0.199	8.258				
	Single-TLS size	0.872	0.948	0.494	1.82				
	TLS location	PT	Ref	1.000	-	-			
		IT	0.497	0.589	0.128	2.711			
Model 2	tB cell%	0.132	1.843	0.832	4.085				
	tTh cell%	0.423	0.719	0.320	1.613				
	tCTL%	0.577	0.784	0.333	1.845				
	tB-cell density	0.040	0.078	0.007	0.885	0.016	0.641	0.446	0.922
	tTh-cell density	0.416	2.041	0.366	11.385				
	tCTL density	0.288	3.421	0.354	33.069				
Model 3	eTh-cell density	0.097	0.587	0.314	1.100	0.004	0.653	0.489	0.871
	eCTL density	0.522	1.262	0.620	2.568				
	eTAM density	0.695	0.891	0.501	1.586				

PT: peritumoral; IT: intratumoral.

Table S13. PD-L1 expression and TIME in ALK+ LUAD, n (%)

Factor	TC<1%	1%≤TC<10%	TC≥10%	P
TLS				
Absence	4 (21.1)	3 (18.8)	2 (50.0)	0.413
Presence	15 (78.9)	13 (81.3)	2 (50.0)	
Location				
Peritumoral	10 (66.7)	3 (23.1)	0 (0)	0.023
Intratumoral	5 (33.3)	10 (76.9)	2 (100.0)	
TLS density (/mm ²)	0.12 (0.04, 1.18)	0.27 (0.04, 1.80)	0.41 (0.37, 0.45)	0.113
TLS/tumor *10 ²	0.49 (0.15, 8.45)	1.00 (0.17, 12.59)	2.12 (1.73, 2.52)	0.262
Single-TLS size *10 ² (mm ²)	2.89 (1.85, 16.62)	4.09 (1.53, 26.40)	5.34 (3.88, 6.81)	0.113
Density *10 ² (/mm ²)				
tTh cell	56.14 (5.35, 525.91)	94.47 (7.70, 1914.30)	125.78 (114.45, 137.10)	0.410
tCTL	27.52 (6.84, 413.35)	40.65 (5.16, 792.93)	145.01 (135.21, 154.81)	0.149
tB cell	40.52 (14.39, 1259.50)	100.24 (7.34, 1688.96)	331.03 (218.98, 443.07)	0.168
Proportions in TLS				
tB cell%	44.96±3.60	43.29±4.18	56.96±6.65	0.463
tTh cell%	38.86±4.00	42.00±4.22	22.54±3.24	0.254
tCTL%	16.19±1.78	14.71±1.50	20.50±3.40	0.457
tTreg cell%				
<1%	8 (53.3)	9 (69.2)	1 (50.0)	0.561
1-10%	6 (40.0)	2 (15.4)	1 (50.0)	
10-50%	1 (6.7)	2 (15.4)	0 (0)	
tDC%				
<1%	0 (0)	3 (23.1)	0 (0)	0.284
1-10%	11 (73.3)	6 (46.2)	2 (100.0)	
10-50%	4 (26.7)	4 (30.8)	0 (0)	
tTAM%				
<1%	1 (6.7)	1 (7.7)	2 (100.0)	0.029
1-10%	13 (86.7)	12 (92.3)	0 (0)	
10-50%	1 (6.7)	0 (0)	0 (0)	
eTh-cell density *10^-2 (/mm ²)	26.59 (10.53, 65.21)	42.64 (12.54, 95.31)	35.87 (11.04, 60.19)	0.152
eCTL density *10^-2 (/mm ²)	8.31 (3.20, 19.82)	10.55 (1.92, 19.18)	7.67 (5.11, 20.46)	0.630
eTAM density *10^-2 (/mm ²)	4.10 (1.02, 35.86)	3.84 (1.02, 8.20)	3.07 (2.05, 10.25)	0.742

Distribution of Propensity Scores

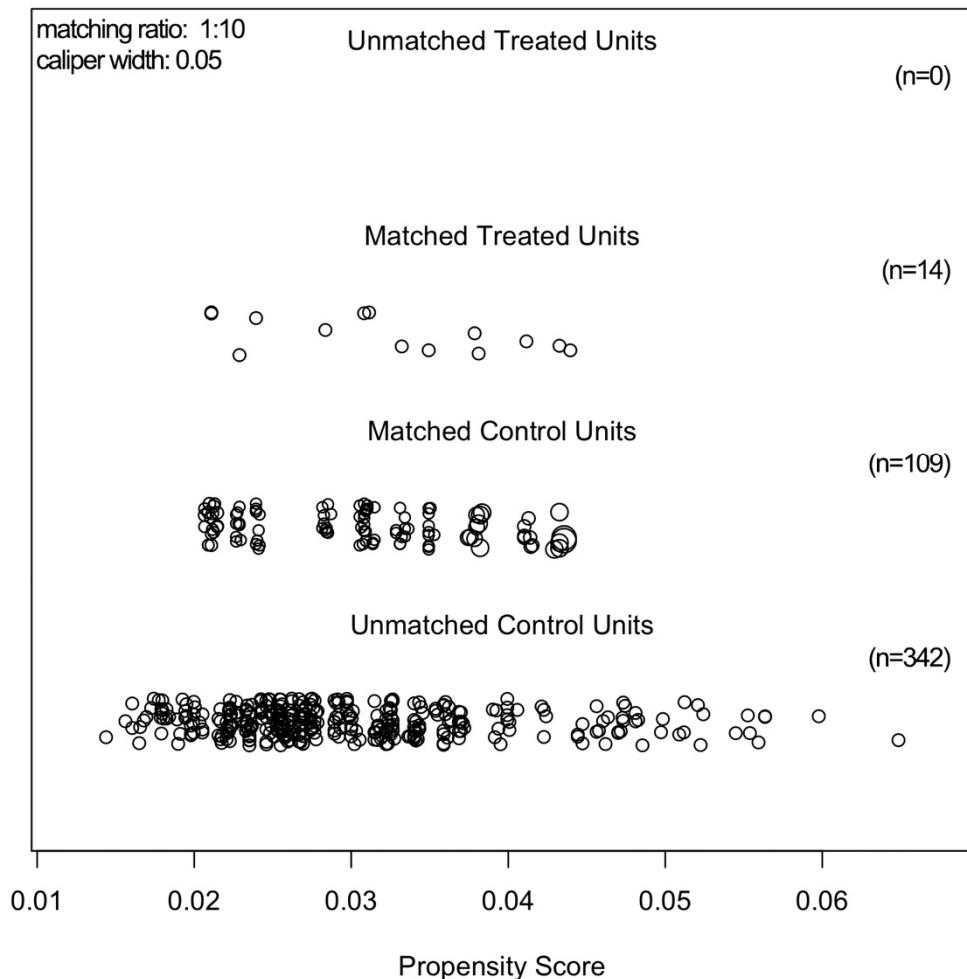


Figure S1. PSM between the GR and non-GR group