

Supplementary Table S1 Patient data

Patient	Sex	Age (in years)	Smoking/Tobacco	HPE-NSCLC	Tumor diameter	ADC of mass at b-value 800 (10 ⁻³ mm ² /s) Min, Mean, Max	Mass SUV _{max}	ADC of LN at b-value 800 (10 ⁻³ mm ² /s) Min, Mean, Max	LN SUV _{max}
1	M	42	P	Adenocarcinoma	5.5 × 4.3 cm, left lung	1.01, 1.09, 1.21	10.8	0.92, 1.098, 1.33	11
2	F	64	P	Adenocarcinoma	5.5 × 4.6 cm, right lung	0.70, 0.76, 0.99	8	0.84, 1.24, 1.65	7
3	M	59	P	Squamous cell carcinoma	2.3 × 2.3 cm, left lung	1.31, 1.46, 1.66	11	1.19, 1.60, 2.26	10.3
4	M	65	P	Squamous cell carcinoma	7.7 × 4.3 cm, left lung	0.55, 0.62, 0.69	22.2	0.83, 1.13, 1.53	26.6
5	M	58	P	Squamous cell carcinoma	4.4 × 4.1 cm, right lung	0.92, 1.04, 1.18	13.7	0.97, 1.11, 1.23	12.1
6	F	38	P	Adenocarcinoma	4.6 × 3.6 cm, right lung	0.89, 0.95, 1.04	10	0.97, 1.11, 1.22	4.8
7	M	72	P	Squamous cell carcinoma	3.4 × 2.9 cm, right lung	0.69, 0.82, 0.97	7.4	0.85, 1.00, 1.14	7.3
8	M	66	P	Squamous cell carcinoma	5.9 × 2.8 cm, left lung	0.64, 0.81, 0.93	8.3	0.63, 0.79, 0.89	8.5
9	M	67	P	Squamous cell carcinoma	3.4 × 3.3 cm, right lung	0.79, 0.92, 1.099	8.8	1.39, 1.51, 1.73	9.4
10	F	60	P	Adenocarcinoma	2.5 × 1.8 cm, right lung	1.43, 1.50, 1.70	5.8	1.07, 1.20, 1.30	6
11	F	60	A	Adenocarcinoma	8.2 × 4.9 cm, right lung	0.67, 0.69, 0.72	12.2	1.05, 1.20, 1.41	6.1
12	f	60	A	Adenocarcinoma	2.4 × 2.1 cm, left lung	0.79, 1.092, 1.511	6.7	0.46, 0.57, 0.72	22
13	M	58	P	Adenocarcinoma	5.9 × 4.4 cm, right lung	0.58, 0.70, 0.80	12.2	1.30, 1.46, 1.68	17.8
14	M	72	P	Adenocarcinoma	9.1 × 6.9 cm, right lung	0.62, 0.73, 0.82	8.2	1.27, 1.45, 1.79	3.9
15	F	50	P	Adenocarcinoma	3.3 × 3.0 cm, left lung	0.66, 0.77, 0.98	13.9	0.69, 0.77, 0.58	10.5
16	F	70	P	Squamous cell carcinoma	4.0 × 2.7 cm, right lung	1.04, 1.15, 1.38	12.4	NA	3.9
17	M	51	P	Adenocarcinoma	6.2 × 4.3 × 9.4 cm, right lung	1.24, 1.33, 1.38	11.5	1.03, 1.11, 1.25	10.7
18	M	72	P	Adenocarcinoma	8.8 × 5.6 cm, right lung	0.86, 0.93, 0.97	15.9	1.39, 1.82, 2.07	7.2
19	m	61	p	Adenocarcinoma	4.1 × 2.4 cm, left lung	1.12, 1.33, 1.51	19	0.91, 1.02, 1.108	20.2
20	F	34	A	Adenocarcinoma	4.2 × 2.9 cm, left lung	0.63, 0.85, 1.014	13.4	0.75, 0.89, 1.21	10
21	M	60	P	Squamous cell carcinoma	9.5 × 5.8 cm, right lung	0.73, 0.93, 1.102	10.5	0.96, 1.30, 1.61	3.1
22	F	69	P	Adenocarcinoma	7.8 × 5.7 cm, right lung	0.59, 0.79, 0.94	22.9	0.65, 0.84, 1.044	22.9
23	M	53	P	Adenocarcinoma	3.3 × 2.5 cm, right lung	0.60, 0.72, 0.80	10.2	1.06, 1.23, 1.35	11.9
24	M	75	P	Adenocarcinoma	7.6 × 4.5 cm, left lung	1.00, 1.17, 1.37	12.9	1.02, 1.22, 1.71	8.4
25	M	77	P	Squamous cell carcinoma	9.6 × 7.5 × 7.9 cm, right lung	0.89, 0.91, 0.96	16.7	1.01, 1.14, 1.28	12.6
26	M	64	P	Adenocarcinoma	4 × 6.2 × 6.8 cm, left lung	0.71, 0.88, 1.012	13.3	0.93, 1.02, 1.17	8.1
27	M	54	P	Adenocarcinoma	7.7 × 4.9 cm, right lung	1.21, 1.39, 1.54	6.2	1.32, 1.52, 1.85	6
28	F	86	P	Squamous cell carcinoma	8.0 × 5.7 cm, right lung	0.44, 0.54, 0.76	19.4	0.86, 1.12, 1.44	3.9
29	F	75	A	Adenocarcinoma	5.2 × 4.3 cm, left lung	0.42, 0.53, 0.62	22	0.97, 1.04, 1.23	13.1

Abbreviations: A, absent; ADC, apparent diffusion coefficient; F, female; HPE, histopathological examination; LN, lymph node; M, male; NSCLC, nonsmall-cell lung cancer; P, present; SUV, standardized uptake value. Note: b-value: Diffusion sensitivity is controlled by a parameter 'b' that determines the diffusion attenuation by modification of the duration and amplitude of the diffusion gradient; 'b' is expressed in units of s/mm². Typical 'b' values range from 500 s/mm² to 1000 s/mm². As 'b' increases, diffusion weighting also increases and vice versa. The 'b' value is an extrinsic contrast parameter that controls how contrast is derived in a diffusion weighted image, in that high 'b' values exaggerate the differences in a tissue ADC values.

Supplementary Table S2 Mass ADC ($10^{-3} \text{ mm}^2/\text{s}$) of lung carcinoma and its histological types

Mass ADC ($10^{-3} \text{ mm}^2/\text{s}$)	Adenocarcinoma (n = 19)	Squamous cell carcinoma (n = 10)	Total	p-Value	t-Test score
Mass ADC _{min} ($10^{-3} \text{ mm}^2/\text{s}$)					
Mean ± SD	0.85 ± 0.27	0.81 ± 0.25	0.83 ± 0.26		
Median (IQR)	0.8 (0.632–1.01)	0.77 (0.658–0.92)	0.79 (0.639–1.009)	0.689	0.405
Range	0.42–1.44	0.45–1.32	0.42–1.44		
Mass ADC _{mean} ($10^{-3} \text{ mm}^2/\text{s}$)					
Mean ± SD	0.96 ± 0.28	0.92 ± 0.26	0.95 ± 0.27		
Median (IQR)	0.88 (0.746–1.137)	0.92 (0.815–1.018)	0.92 (0.76–1.098)	0.732	0.346
Range	0.53–1.5	0.54–1.47	0.53–1.5		
Mass ADC _{max} ($10^{-3} \text{ mm}^2/\text{s}$)					
Mean ± SD	1.11 ± 0.31	1.08 ± 0.29	1.1 ± 0.3		
Median (IQR)	1.01 (0.881–1.379)	1.04 (0.942–1.164)	1.01 (0.935–1.373)	0.81	0.242
Range	0.63–1.7	0.69–1.67	0.63–1.7		

Abbreviations: ADC, apparent diffusion coefficient; IQR, interquartile range; SD, standard deviation.

Supplementary Table S3 Lymph node ADC ($10^{-3} \text{ mm}^2/\text{s}$) of lung carcinoma and its histological types

Lymph node ADC ($10^{-3} \text{ mm}^2/\text{s}$)	Adenocarcinoma (n = 19)	Squamous cell carcinoma (n = 10)	Total	p-Value	t-Test score
Lymph node ADC _{min} ($10^{-3} \text{ mm}^2/\text{s}$)					
Mean ± SD	0.98 ± 0.24	0.87 ± 0.37	0.95 ± 0.29		
Median (IQR)	0.98 (0.879–1.07)	0.91 (0.838–1.003)	0.97 (0.841–1.066)	0.341	0.968
Range	0.46–1.4	0–1.39	0–1.4		
Lymph node ADC _{mean} ($10^{-3} \text{ mm}^2/\text{s}$)					
Mean ± SD	1.15 ± 0.29	1.07 ± 0.44	1.13 ± 0.34		
Median (IQR)	1.12 (1.024–1.24)	1.13 (1.03–1.263)	1.13 (1.021–1.241)	0.566	0.58
Range	0.57–1.83	0–1.6	0–1.83		
Lymph node ADC _{max} ($10^{-3} \text{ mm}^2/\text{s}$)					
Mean ± SD	1.36 ± 0.37	1.31 ± 0.59	1.34 ± 0.45		
Median (IQR)	1.3 (1.194–1.67)	1.36 (1.171–1.594)	1.3 (1.174–1.659)	0.822	0.226
Range	0.59–2.07	0–2.26	0–2.26		

Abbreviations: ADC, apparent diffusion coefficient; IQR, interquartile range; SD, standard deviation.

Note: P-value < 0.05: The result is statistically significant.