

Table S1 Comparison of morphological characteristics, spectral CT, and PET/CT quantitative parameters between grade 3 group and non-grade 3 group based on spectral CT and PET/CT

Variables	Non-grade 3 (n=32)	Grade 3 (n=28)	P value
Tumor size			0.796
Median (range)	2.4 (0.8–4.5)	2.3 (0.9–4.5)	
Size ≤3 cm, n (%)	26 (81.3)	22 (78.6)	
Size >3 cm, n (%)	6 (18.7)	6 (21.4)	
Tumor lobe distribution			0.162
RUL, n (%)	13 (40.6)	5 (17.9)	
RML, n (%)	4 (12.5)	1 (3.5)	
RLL, n (%)	4 (12.5)	5 (17.9)	
LUL, n (%)	7 (21.9)	12 (42.8)	
LLL, n (%)	4 (12.5)	5 (17.9)	
Nodule attenuation			<0.001
GGN, n (%)	10 (31.3)	0	
Part-solid nodule, n (%)	9 (28.1)	3 (10.7)	
Solid nodule, n (%)	13 (40.6)	25 (89.3)	
Lobulation			0.348
Present, n (%)	23 (71.9)	23 (82.1)	
Absent, n (%)	9 (28.1)	5 (17.9)	
Spiculation			0.073
Present, n (%)	21 (65.6)	24 (85.7)	
Absent, n (%)	11 (34.4)	4 (14.3)	
Air bronchogram			0.630
Present, n (%)	11 (34.4)	8 (28.6)	
Absent, n (%)	21 (65.6)	20 (71.4)	
Vacuolation sign			0.817
Present, n (%)	5 (15.6)	5 (17.9)	
Absent, n (%)	27 (84.4)	23 (82.1)	
Pleural retraction			0.503
Present, n (%)	24 (75.0)	23 (82.1)	
Absent, n (%)	8 (25.0)	5 (17.9)	
SUVmax, median (IQR)	2.045 (1.360–3.713)	7.505 (5.723–10.763)	<0.001
SUVmean, median (IQR)	1.135 (0.729–2.230)	2.235 (1.045–5.621)	0.003
MTV, median (IQR)	4.290 (1.911–8.737)	3.185 (1.370–5.783)	0.142
TLG, median (IQR)	4.951 (1.798–11.426)	9.554 (4.470–21.628)	0.049
ICL _a , median (IQR), mg/mL	1.666 (1.430–1.938)	1.127 (1.080–1.420)	<0.001
NIC _a , mean (SD)	0.143 (0.114–0.188)	0.114 (0.080–0.135)	<0.001
λHU _a , median (IQR)	2.072 (1.875–2.433)	1.718 (1.629–2.020)	0.001
ICL _v , mean (SD), mg/mL	1.787 (0.455)	1.379 (0.260)	<0.001
NIC _v , mean (SD)	0.493 (0.122)	0.412 (0.066)	0.002
λHU _v , mean (SD)	2.400 (0.535)	1.990 (0.391)	0.001

Table S2 Univariate and multivariate logistic regression analysis of grade 3 tumors with PET/CT scans (n=60 nodules)

Independent variables	Univariate logistic regression		Multivariate logistic regression	
	OR	95% CI	OR	95% CI
GGN, yes	0	0		
Part-solid nodule, yes	0.307	0.074–1.274		
Solid nodule, yes	12.179***	3.034–48.894	5.575*	1.110–27.993
SUVmax on PET/CT scan	1.539***	1.234–1.921	1.408**	1.132–1.751
SUVmean on PET/CT scan	1.604**	1.173–2.195		
TLG on PET/CT scan	1.043*	1.000–1.088		

*, P<0.05; **, P<0.01; ***, P<0.001.