

Table II. Univariate and multivariate analyses of factors associated with grade 2 or more radiation pneumonitis.

Factor	Univariate analysis		Multivariate analysis		
	Cumulative 6-month RP (%)	<i>p</i> -Value	Hazard ratio (95% CI)	<i>p</i> -Value	
Gender	Female	38.5	0.1	-	NE
	Male	23.5			
Age	<65 Years	25.0	0.4	-	NE
	≥65 Years	31.6			
T-Stage	1-2	34.8	0.3	-	NE
	3-4	30.8			
N-Stage	0-1	9.5	0.04	1	0.14
	2-3	32.9		2.99 (0.70-12.81)	
Clinical stage	IIA-III A	27.7	0.9	-	NE
	IIIB	27.6			
Histology	Adenocarcinoma	23.3	0.6	-	NE
	Other	31.4			
Smoking history <sup>a</sup>	Never/former	33.3	0.2	-	NE
	Current	21.3			
ECOG-PS <sup>a</sup>	0	32.8	0.3	-	NE
	1-2	20.0			
Laterality	Right	29.6	>0.99	-	NE
	Left	25.0			
Lobe	Upper/middle	20.5	0.003	1	0.078
	Lower	52.4		2.29 (0.91-5.49)	
FEV1 <sup>a</sup>	<2.3 l	42.9	0.05	-	NE
	≥2.3 l	20.7			
Chemotherapy	Cisplatin/docetaxel	27.9	0.9	-	NE
	Other	25.0			
Radiation dose	<50 Gy	28.9	0.2	-	NE
	≥50 Gy	0.0			
Surgery	Pneumonectomy	20.0	0.7	-	NE
	Other	28.1			
V5	<33%	26.1	0.005	1	0.79
	≥33%	44.7		0.86 (0.28-2.59)	
V20	<22%	13.6	<0.001	1	0.094
	≥22%	51.4		3.19 (0.75-35.70)	
Mean lung dose	<11 Gy	14.3	0.001	1	0.63
	≥11 Gy	47.4		0.63 (0.10-4.03)	
Body mass index <sup>a</sup>	<22 kg/m <sup>2</sup>	22.4	0.1	-	NE
	≥22 kg/m <sup>2</sup>	34.1			
Skeletal muscle index	<46 cm <sup>2</sup> /m <sup>2</sup>	28.3	0.9	-	NE
	≥46 cm <sup>2</sup> /m <sup>2</sup>	27.1			
Psoas muscle index	<5.7 cm <sup>2</sup> /m <sup>2</sup>	32.5	0.3	-	NE
	≥5.7 cm <sup>2</sup> /m <sup>2</sup>	24.1			
Visceral adipose index	<39 cm <sup>2</sup> /m <sup>2</sup>	21.4	0.03	1	0.026
	≥39 cm <sup>2</sup> /m <sup>2</sup>	36.8		2.38 (1.11-5.13)	
Subcutaneous adipose index	<43 cm <sup>2</sup> /m <sup>2</sup>	23.0	0.07	-	NE
	≥43 cm <sup>2</sup> /m <sup>2</sup>	36.4			
Visceral-to-subcutaneous fat ratio	<0.8	29.5	>0.99	-	NE
	≥0.8	36.0			

CI: Confidence interval; ECOG-PS: Eastern Cooperative Oncology Group performance status; FEV1: forced expiratory volume in 1 second; NE: not entered; V5: lung volume percentage receiving >5 Gy; V20: lung volume percentage receiving >20 Gy. <sup>a</sup>These have missing values.