

Table S1 The baseline characteristics of patients with a significant amount of pneumothorax that requires chest tube insertion

Characteristic	Patients with pneumothorax (n=342)	Pneumothorax without chest tube insertion (n=318)	Pneumothorax required chest tube insertion (n=24)	P value
Age (y)*	61.27±10.45	61.15±10.41	62.75±11.09	0.471
Sex				0.098
Male	225 (65.8)	205 (64.5)	20 (83.3)	
Female	117 (34.2)	113 (35.5)	4 (16.7)	
History of treatment				1
Newly diagnosed	264 (77.2)	245 (77.0)	19 (79.2)	
After treatment	78 (22.8)	73 (23.0)	5 (20.8)	
Lesion type				0.504
Primary	307 (89.8)	284 (89.3)	23 (95.8)	
Metastatic	35 (10.2)	34 (10.7)	1 (4.2)	
Lesion size (mm)*	25.45±16.04	24.72±15.30	35.21±21.97	0.002
Lobar location				0.218
Left upper	83 (24.3)	76 (23.9)	7 (29.2)	
Left lower	81 (23.7)	80 (25.2)	1 (4.2)	
Right upper	88 (25.7)	81 (25.5)	7 (29.2)	
Right middle	21 (6.1)	19 (6.0)	2 (8.3)	
Right lower	69 (20.2)	62 (19.5)	7 (29.2)	
Lung field				0.388
Upper	33 (9.6)	31 (9.7)	2 (8.3)	
Upper-middle	97 (28.4)	86 (27.0)	11 (45.8)	
Middle	56 (16.4)	53 (16.7)	3 (12.5)	
Lower-middle	83 (24.3)	78 (24.5)	5 (20.8)	
Lower	73 (21.3)	70 (22.0)	3 (12.5)	
Contact with pleura				0.114
Yes	98 (28.7)	95 (29.9)	3 (12.5)	
No	244 (71.3)	223 (70.1)	21 (87.5)	
Emphysema				0.034
Yes	99 (28.9)	87 (27.4)	12 (50.0)	
No	243 (71.1)	231 (72.6)	12 (50.0)	
Date of biopsy (year)				0.068
2017	99 (28.9)	97 (30.5)	2 (8.3)	
2018	137 (40.1)	125 (39.3)	12 (50.0)	
2019	106 (31.0)	96 (30.2)	10 (41.7)	
Patient position				0.125
Supine	73 (21.3)	70 (22.0)	3 (12.5)	
Prone	216 (63.2)	202 (63.5)	14 (58.3)	
Lateral	53 (15.5)	46 (14.5)	7 (29.2)	
Crossing of fissures				0.758
Yes	70 (20.5)	64 (20.1)	6 (25.0)	
No	272 (79.5)	254 (79.9)	18 (75.0)	
Distance from pleura to lesion (mm)*	18.71±14.87	18.50±14.87	21.50±14.81	0.341
Angle of needle insertion (°) *	13.87±11.86	13.90±11.92	13.46±11.36	0.861
Number of pleural punctures				NA
Single	342 (100)	318 (100.0)	24 (100.0)	
Multiple	0	0	0	
Number of core samples taken				0.398
Single	136 (39.8)	124 (39.0)	12 (50.0)	
Multiple	206 (60.2)	194 (61.0)	12 (50.0)	
Duration (min)*	18.64±6.42	18.78±6.53	16.71±4.39	0.127
Operator				0.108
A	67 (19.6)	66 (20.8)	1 (4.2)	
B	173 (50.6)	157 (49.4)	16 (66.7)	
C	102 (29.8)	95 (29.9)	7 (29.2)	

* Data are mean ± standard deviation; data in parentheses are percentages. The P values are results of ANOVA for continuous variable and χ^2 test for categorized variables. P>0.05 suggests no significant difference between the subjects in the three cohorts.