

Supplementary table 2. Comparison of clinical features between SSP patients with (n=429) and without surgical intervention (n=388).

Variables	Surgery (+) (n=429)	Surgery (-) (n=388)	p-value
Mode of onset			0.0004
first/recurrence/unknown	229 (53.4)/200 (46.6)/0 (0)	254 (65.5)/132 (34)/2 (0.5)	
Underlying pulmonary disease			
Chronic obstructive pulmonary disease	242 (56.8)	196 (50.5)	0.0786
Interstitial pneumonia	43 (10)	84 (21.6)	<0.0001
Combined pulmonary fibrosis and emphysema	37 (8.6)	31 (8)	0.8000
Pulmonary malignancy	48 (11.2)	48 (12.4)	0.6640
Pulmonary infection	21 (4.9)	64 (16.5)	<0.0001
Catamenial	53 (12.4)	23 (5.9)	0.0016
Others	70 (16.3)	57 (14.7)	0.5620
Home oxygen therapy			0.0002
+/-	31 (7.2)/398 (92.8)	60 (15.5)/328 (84.5)	
Comorbidities except for pulmonary disease			<0.0001
+/-/unknown	255 (59.4)/173 (40.3)/1 (0.2)	287 (74)/101 (26)/0 (0)	

Details of comorbidities except for pulmonary disease

Impaired liver function (Child-Turcotte classification \geq B)	1 (0.2)	9 (2.3)	0.0083
Hemodialysis	1 (0.2)	6 (1.5)	0.0577
Ischemic heart disease	28 (6.5)	44 (11.3)	0.0185
Malignancy (treated within 5 years)	48 (11.2)	63 (16.2)	0.0407
Cerebrovascular disease	26 (6.1)	60 (15.5)	<0.0001
Diabetes mellitus	49 (11.4)	56 (14.4)	0.2100
Anemia (Hb \leq 8g/dl)	3 (0.7)	6 (1.5)	0.3220
Autoimmune disorder	19 (4.4)	17 (4.4)	1
Arrhythmia	27 (6.3)	41 (10.6)	0.0310
Hypertension	101 (23.5)	143 (36.9)	<0.0001
Others	132 (31)	142 (36.7)	0.0881
Administration of steroid on admission +/-	36 (8.4)/393 (91.6)	49 (12.6)/339 (87.4)	0.0515
Affected side left/right/bilateral	420 (97.9)/9 (2.1)	371 (95.6)/17 (4.4)	0.0734
Age, median (IQR), years	66 (13-93)	74 (16-96)	<0.0001
Gender Female/Male	112 (26.1)/317 (73.9)	98 (25.3)/290 (74.7)	0.8100

Performance Status			
0	244 (56.9)	114 (29.4)	0.0001
1	98 (22.8)	113 (29.1)	0.0454
2	43 (10)	73 (18.8)	0.0004
3	25 (5.8)	48 (12.4)	0.0013
4	9 (2.1)	30 (7.7)	0.0002
unknown	10 (2.3)	10 (2.6)	0.8250
BMI, median (IQR),	19.8 (12.5-32.9)	19 (10-33.9)	0.0001
Smoking index, median (IQR), pack x year	30 (0-175)	33.9 (0-158)	0.288
Serum CRP on admission, median (IQR), g/dl	0.3 (0-24.7)	0.8 (0-29.9)	<0.0001
Serum albumin on admission, median (IQR), g/dl	4 (2-5.2)	3.7 (1.6-5.1)	<0.0001
Degree of the collapsed lung			
mild/moderate	72 (16.8)/207 (48.3)	91 (23.5)/227 (58.5)	<0.0001
/severe/unknown	/134 (31.2)/16 (3.7)	/66 (17)/4 (1)	
Thoracography			0.5180
+/-	37 (8.6)/392 (91.4)	28 (7.2)/360 (92.8)	
Chest tube drainage			0.5230
+/-	356 (83)/73 (17)	315 (81.2)/73 (18.8)	

Pleurodesis			<0.0001
+/-	49 (11.4)/380 (88.6)	90 (23.2)/298 (76.8)	
Administrative agents in the pleurodesis			
OK-432	19 (4.4)	32 (8.3)	0.0292
Minocycline	15 (3.5)	26 (6.7)	0.0378
Autoblood	13 (3)	26 (6.7)	0.0203
Talk	8 (1.9)	6 (1.6)	0.7930
Glucose solution	25 (5.8)	25 (6.5)	0.7710
Others	8 (1.9)	9 (2.3)	0.8070
Trans-airway procedure			0.2900
+/-	15 (3.5)/414 (96.5)	8 (2.1)/380 (97.9)	
Treatment in intensive care unit			<0.0001
+/-/unknown	88 (20.5)/338 (78.8)/3 (0.7)	14 (3.6)/374 (96.4)/0 (0)	
Total hospitalization, median (IQR), days	14 (4-234)	13 (0-136)	0.0056
Outcome at discharge			<0.0001
home/transferred to other hospital/death	387 (90.2)/32 (7.5)/10 (2.3)	303 (78.1)/53 (13.7)/32 (8.2)	

SSP: secondary spontaneous pneumothorax, Hb: hemoglobin, IQR: interquartile range, BMI: body mass index, CRP: c-reactive protein