

Table S1 Comparison of characteristics of primary and secondary spontaneous pneumothorax

Patients	Rate (%)	P value
Gender: men		
PSP/SSP	82.8/76.2	0.251
Smoking habits: never		
PSP/SSP	72.7/21.9	0.001
Laterality of SP: left		
PSP/SSP	59.4/41.9	0.009
History of ipsilateral SP: no		
PSP/SSP	49.2/61.0	0.086
History of contralateral SP: no		
PSP/SSP	78.1/69.5	0.175
Surgical approach: thoracoscopic surgery		
PSP/SSP	90.6/61.9	<0.001
Surgical methods: bullectomy		
PSP/SSP	76.7/49.0	<0.001
Pleural reinforcement: ORC		
PSP/SSP	67.2/37.1	<0.001
Operative time: >100 min		
PSP/SSP	38.3/61.9	<0.001
Surgeon: resident		
PSP/SSP	41.4/11.4	<0.001
Surgeon: specialist		
PSP/SSP	22.7/44.8	<0.001
Age: <30 years		
PSP/SSP	87.5/5.7	<0.001

ORC, oxidized regenerated cellulose mesh; PGA, absorbable polyglycol acid sheets; PSP, primary spontaneous pneumothorax; SP, spontaneous pneumothorax; SSP, secondary spontaneous pneumothorax.

Table S2 Underlying diseases of secondary spontaneous pneumothorax

Underlying diseases	Total n=104
Chronic obstructive pulmonary disease	67
Interstitial pneumonia	18
Birt-Hogg-Dube syndrome	8
Catamenial pneumothorax	5
Lymphangioliomyomatosis	2
Nontuberculous mycobacteriosis	2
Others	2

Table S3 Univariate analysis for postoperative recurrence of spontaneous pneumothorax

Patients	Recurrence rate (%)	P value
Sex		
Men/women	18.3/14.9	0.673
Type of SP		
Primary/secondary	25.0/8.6	0.001
Smoking habits		
Ever/never	8.1/26.5	0.003
Laterality of SP		
Left/right	21.0/14.2	0.228
History of ipsilateral SP		
Yes/no	22.6/13.4	0.084
History of contralateral SP		
Yes/no	23.3/15.6	0.175
Surgical approach		
Thoracoscopic surgery/thoracotomy	21.5/3.8	0.002
Surgical methods		
Bullectomy/bulla ligation	20.7/16.4	0.567
Pleural reinforcement		
ORC/PGA/fibrin glue/none	20.8/8.6/5.9/35.0	0.023/0.033/0.005/0.058
Operative time		

<100 min/>100 min	21.8/13.2	0.088
Surgeon		
Resident/fellow/specialist	29.2/12.0/14.5	0.007/0.080/0.465
Age		
<30 years/>30 years	28.8/6.1	<0.001

ORC, oxidized regenerated cellulose mesh; PGA, absorbable polyglycol acid sheets;
SP, spontaneous pneumothorax.