

**Table S1** Patient characteristics (n=192)

Characteristics	Normal (n=113)	Obstructive (n=55)	Restrictive (n=31)	Mixed (n=7)
Age, y, median [range]	69 [31-92]	74 [56-88]	75 [60-88]	71 [62-82]
Sex				
Male	46	39	16	4
Female	67	16	15	3
Body mass index, kg/m <sup>2</sup> , median [range]	22.6 [16.3-31.2]	22.8 [16.5-29.7]	23.0 [14.5-29.7]	22.8 [18.4-29.7]
Smoking status				
Never	67	18	13	3
Former/current	46	37	18	4
Brinkman index				
Median [range]	750 [20-3120]	1040 [12-2880]	900 [8-2640]	1350 [700-1560]
Performance status				
0	98	38	20	3
1	11	14	7	3
2	3	2	2	0
3	1	1	2	1
Surgical approach				
Thoracotomy	4	1	3	0
VATS	109	54	28	7
Extent of resection				
Lobectomy	78	13	8	2
Segmentectomy	31	17	9	2
Wedge	4	15	14	3
Histology				
Ad	102	41	18	6
Sq	9	9	10	1
Other	2	5	3	0
Hospitalization period, days				
Average [range]	8.2 [2-30]	8.0 [3-21]	11.7 [3-73]	10.0 [6-15]

Data are presented as n unless otherwise indicated. VATS, video-assisted thoracic surgery; Ad, adenocarcinoma; Sq, squamous cell carcinoma.

**Table S2** Details of early postoperative complications

Respiratory dysfunction	Normal	Obstructive ventilatory impairment	Restrictive ventilatory impairment
Prolonged air leak	6		1
Pneumonia			1
Surgical site infection	2	2	
Arrhythmia	3		1
Chylothorax	1	1	
Pulmonary embolism	1		
Others	1	1	1

**Table S3** Details of postoperative late complications

Respiratory dysfunction	Normal	Obstructive ventilatory impairment	Restrictive ventilatory impairment	Mixed ventilatory impairment
Pneumonia	5	4	4	1
Organizing pneumonia	1			
Internal pneumonia	3		1	
Pneumothorax	2		1	
Pyothorax		2		
Pulmonary embolism	2			
Heart failure	3		1	
Arrhythmia	3	3	2	1
Angina	4	1	1	
Acute myocardial infarction	2	1		
Valvular disease			1	
Aortic dissection	1	1		
Cerebral infarction	1			
Cerebral hemorrhage	1		1	
Renal failure	2			
Pyelonephritis	1	1		
Cholecystitis	1			
Surgical wound dehiscence	1			
Bone fracture	4	3	2	1
Others	1	2	1	1

**Table S4** Details of tumor size, surgical margin and follow-up outcomes in patients with wedge resection—normal respiratory function

No.	Tumor size (mm)	Surgical margin (mm)	Recurrence	Follow-up outcomes
1	16	15	No	Alive at 81-month
2	15	22	No	Alive at 72-month
3	5	10	No	Alive at 60-month
4	8	10	No	Alive at 43-month
5	15	16	No	Alive at 52-month
6	8	10	No	Lost to follow-up
7	8	10	No	Alive at 91-month
8	8	15	No	Alive at 90-month
9	8	12	No	Alive at 97-month
10	5	20	No	Alive at 61-month
11	6	15	No	Lost to follow-up
12	8	15	No	Alive at 62-month
13	5	10	No	Alive at 31-month
14	4	16	No	Alive at 72-month
15	6	20	No	Alive at 75-month
16	12	10	Yes	Alive at 24-month
17	8	14	No	Alive at 93-month
18	5	7	No	Alive at 61-month
19	6	23	No	Alive at 48-month
20	10	11	No	Alive at 62-month
21	7	15	No	Alive at 60-month
22	11	10	No	Alive at 57-month
23	5	10	No	Alive at 84-month
24	9	12	Yes	Died, lung cancer
25	7	20	No	Alive at 67-month
26	14	17	No	Lost to follow-up
27	13	5	No	Alive at 62-month
28	10	10	No	Alive at 24-month
29	4	10	No	Alive at 66-month

**Table S5** Details of tumor size, surgical margin and follow-up outcomes in patients with wedge resection—obstructive ventilatory impairment

No.	Tumor size (mm)	Surgical margin (mm)	Recurrence	Follow-up outcomes
1	11	15	Yes	Alive at 17-month
2	13	20	No	Alive at 66-month
3	8	20	No	Alive at 86-month
4	6	15	No	Alive at 67-month
5	13	10	Yes	Alive at 70-month
6	23	5	Yes	Died, lung cancer
7	10	12	No	Died, aortic dissection
8	11	13	No	Died, another lung cancer
9	11	10	No	Died, empyema
10	20	19	No	Alive at 60-month
11	8	13	No	Alive at 68-month
12	8	20	No	Alive at 79-month
13	4	6	Yes	Alive at 87-month
14	11	12	No	Died, colon cancer
15	15	19	No	Alive at 101-month

**Table S6** Details of tumor size, surgical margin and follow-up outcomes in patients with wedge resection—restrictive ventilatory impairment

No.	Tumor size (mm)	Surgical margin (mm)	Recurrence	Follow-up outcomes
1	30	4	Yes	Died, lung cancer
2	18	10	Yes	Died, pneumonia
3	9	15	No	Alive at 7-month
4	23	20	No	Alive at 15-month
5	27	30	Yes	Alive at 9-month
6	8	15	No	Alive at 71-month
7	9	5	Yes	Alive at 27-month
8	13	15	No	Alive at 67-month
9	19	12	Yes	Died, lung cancer
10	21	1	No	Died, <i>E. coli</i> O-157 enteritis
11	18	15	Yes	Died, lung cancer
12	23	5	Yes	Died, lung cancer
13	11	8	No	Died, another lung cancer
14	19	8	No	Alive at 26-month