

Table S1 Surgical procedures in patients receiving VATS lobectomy and VATS segmentectomy

Variables	Lobectomy (n=338)	Segmentectomy (n=321)	Segments contained	Resection extent index	P value*
Location and procedures					<0.001
RUL	166 (49.1%)	78 (24.3%)	3	1.00	
S ₁	–	36	1	0.33	
S ₂	–	30	1	0.33	
S ₁ + S ₂	–	1	2	0.67	
S ₃	–	11	1	0.33	
RLL	75 (22.2%)	50 (15.6%)	5	1.00	
S ₆	–	33	1	0.20	
S ₇	–	1	1	0.20	
S ₈	–	1	1	0.20	
S ₇ + S ₈	–	10	2	0.40	
S ₉ + S ₁₀	–	4	2	0.40	
S ₇ + S ₈ + S ₉ + S ₁₀	–	1	4	0.80	
LUL	48 (14.2%)	157 (48.9%)	4	1.00	
S ₁₊₂	–	42	1	0.25	
S ₁₊₂ + S ₃	–	79	2	0.50	
S ₃	–	15	1	0.25	
S ₄ + S ₅	–	21	2	0.50	
LLL	49 (14.5%)	36 (11.2%)	4	1.00	
S ₆	–	19	1	0.25	
S ₈	–	12	1	0.25	
S ₉ + S ₁₀	–	5	2	0.50	

*, P value for the difference in tumor location between lobectomy and segmentectomy. RUL, right upper lobe; RLL, right lower lobe; LUL, left upper lobe; LLL, left lower lobe; VATS, video-assisted thoracic surgery.

Table S2 The ratio of observed to expected (O/E ratio) postoperative pulmonary function loss according to the number of resected segments in patients receiving VATS lobectomy and VATS segmentectomy

Number of resected segments	Lobectomy			Segmentectomy		
	FVC	FEV1	DLCO	FVC	FEV1	DLCO
1	NA	NA	NA	1.918±1.529 (1.705–2.131)	2.378±1.493 (2.170–2.586)	1.600±2.313 (1.272–1.929)
2	NA	NA	NA	1.291±0.741 (1.157–1.425)	1.515±0.706 (1.387–1.642)	1.057±0.981 (0.871–1.243)
3	0.989±0.640 (0.891–1.087)	1.129±0.639 (1.031–1.227)	0.676±0.772 (0.554–0.798)	NA	NA	NA
4	0.833±0.473 (0.737–0.928)	0.874±0.477 (0.778–0.970)	0.668±0.593 (0.544–0.792)	0.785	0.612	0.851
5	0.713±0.374 (0.626–0.799)	0.661±0.351 (0.580–0.742)	0.607±0.441 (0.505–0.709)	NA	NA	NA

The results are expressed as mean ± standard deviation (95% CI). CI, confidence interval; DLCO, diffusing capacity of the lungs for carbon monoxide; FEV1, forced expiratory volume in 1 second; FVC, forced vital capacity; NA, not available; VATS, video-assisted thoracic surgery.

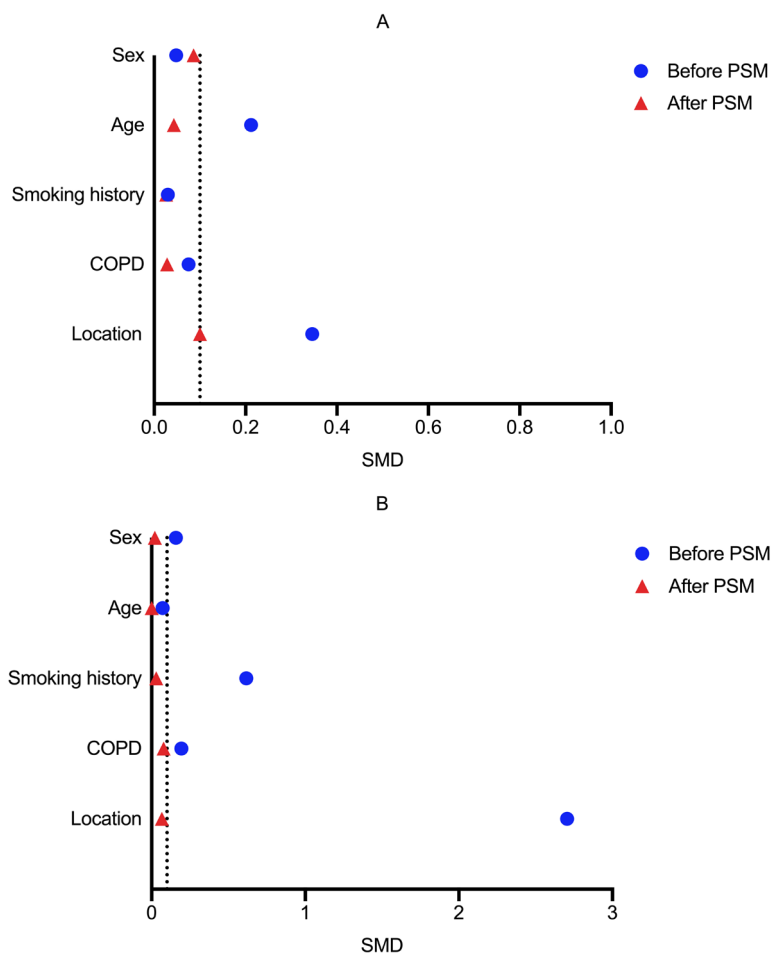


Figure S1 Evaluation of baseline variable balance by standardized mean difference before and after propensity score matching. (A) Comparison between lobectomy and segmentectomy with a resection extent index < 0.5 . (B) Comparison between lobectomy and segmentectomy with a resection extent index ≥ 0.5 . The SMD value no more than 0.1 (within the dotted lines) represents a high degree of balance. COPD, chronic obstructive pulmonary disease; PSM, propensity score matching; SMD, standardized mean difference.

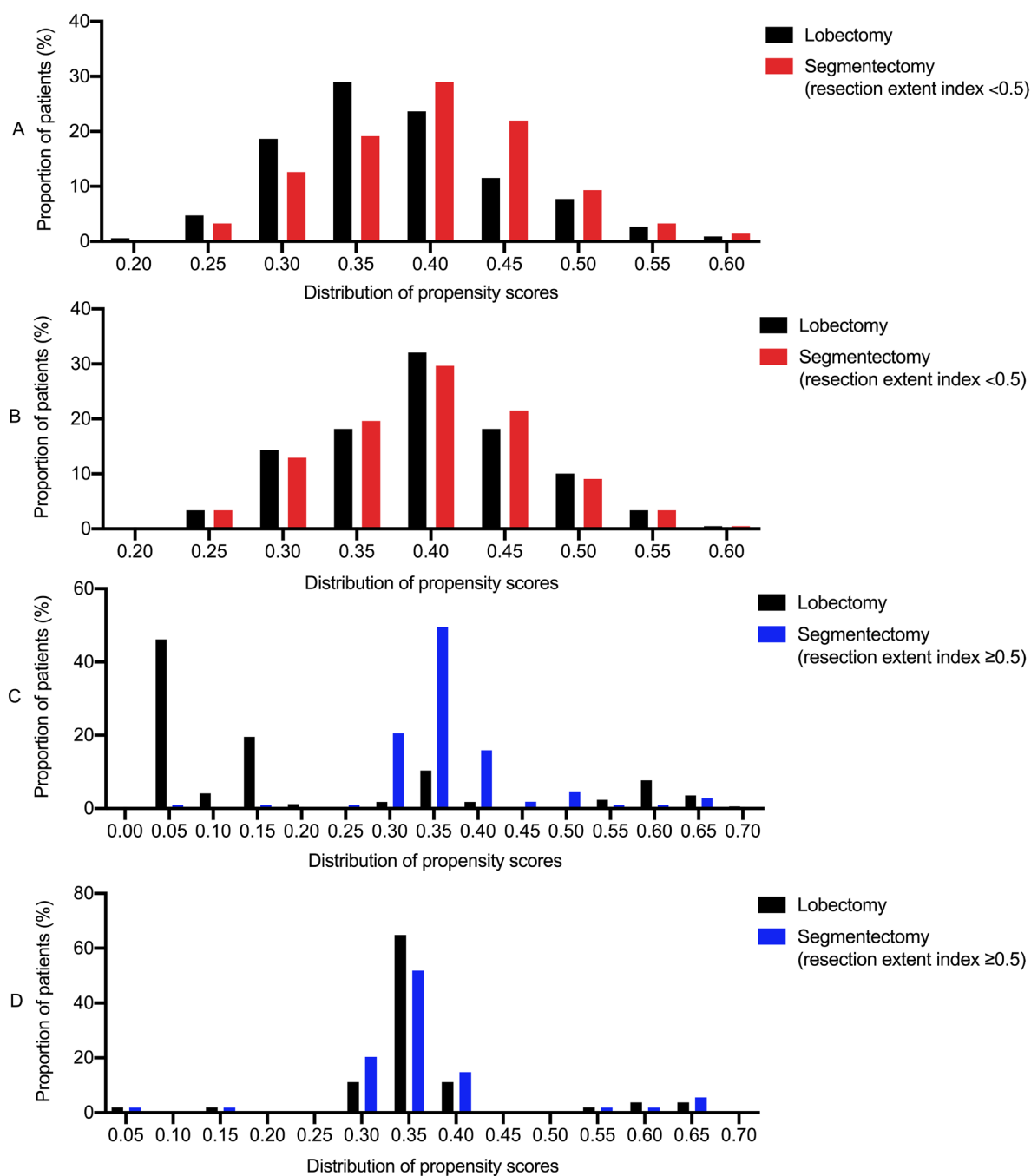


Figure S2 The distribution of propensity scores before (A,C) and after (B,D) propensity score matching.