



Supplementary Figure 1 Selection of Cut-off values for the number of cleared lymph nodes.

Supplementary Table 1 Clinicopathological information of the study population

Variables	Level	Before PSM			After PSM		
		≤ 21 (n = 664)	> 21 (n = 378)	P value	≤ 21 (n = 203)	> 21 (n = 203)	P value
Sex (%)	Male	517 (77.86)	303 (80.16)	0.43	159 (78.33)	158 (77.83)	1
	Female	147 (22.14)	75 (19.84)		44 (21.67)	45 (22.17)	
Age (yr), median (IQR)		60.0 (55.0, 66.0)	60.0 (54.0, 66.0)	0.45	60.0 (55.0, 66.0)	60.0 (54.0, 66.0)	0.404
T (%)	1	77 (11.60)	21 (5.56)	< 0.05	13 (6.40)	16 (7.88)	0.951
	2	148 (22.29)	71 (18.78)		42 (20.69)	41 (20.20)	
	3	307 (46.23)	180 (47.62)		89 (43.84)	87 (42.86)	
	4	132 (19.88)	106 (28.04)		59 (29.06)	59 (29.06)	
N (%)	0	414 (62.35)	198 (52.38)	< 0.05	195 (96.06)	198 (97.54)	0.545
	1	149 (22.44)	85 (22.49)		5 (2.46)	4 (1.97)	
	2	67 (10.09)	67 (17.72)		2 (0.99)	0 (0.00)	
	3	34 (5.12)	28 (7.41)		1 (0.49)	1 (0.49)	
G (%)	Well-differentiated	79 (11.90)	45 (11.90)	0.42	29 (14.29)	31 (15.27)	0.788
	Moderate differentiated	464 (69.88)	276 (73.02)		148 (72.91)	142 (69.95)	
	Poor differentiated	121 (18.22)	57 (15.08)		26 (12.81)	30 (14.78)	
Venous thrombus (%)	Negative	560 (84.34)	327 (86.51)	0.39	196 (96.55)	196 (96.55)	1
	Positive	104 (15.66)	51 (13.49)		7 (3.45)	7 (3.45)	
Perineurial invasion (%)	Negative	364 (77.45)	145 (69.38)	< 0.05	98 (80.33)	78 (78.00)	0.795
	Positive	106 (22.55)	64 (30.62)		24 (19.67)	22 (22.00)	
NPLN, mean (SD)		0.91 (1.75)	1.62 (2.67)	< 0.05	0.044	0.020	0.314

RPLN, mean (SD)	0.07 (0.13)	0.06 (0.09)	0.17	(0.319)	(0.139)	0.32
				(0.015)	(0.007)	
Adjuvant chemotherapy (%)	No 414 (62.35)	185 (48.94)	< 0.05	76 (37.44)	79 (38.92)	0.092
	Yes 250 (37.65)	193 (51.06)		127 (62.56)	144 (70.94)	

NPLN: Number of positive lymph nodes, RPLN: Ratio of positive lymph nodes.