

Table S1 Surgical procedure of patients who underwent primary tumor surgery

	Before PSM	After PSM
	n=492 (%)	n=472 (%)
Resection of primary site tumor		
Total esophagectomy	397 (80.7)	379 (80.3)
Partial esophagectomy	45 (9.1)	43 (9.1)
Surgery, NOS ^a	50 (10.2)	50 (10.6)
Number of retrieved LN, median (IQR)	12 [6–19]	12 [6–19]

^a, primary tumor resection was performed, but did not specify the procedure. PSM, propensity-score matching; NOS, not otherwise specific; LN, lymph node; IQR, interquartile range.

Table S2 Number of distant metastases of participants

	Before PSM			After PSM		
	Surgery to primary site	No-Surgery to primary site		Surgery to primary site	No-Surgery to primary site	
	n=492 (%)	n=4758 (%)	P-value	n=472 (%)	n=472 (%)	P-value
Distant lymph nodes	264 (53.7)	889 (18.7)	<0.001	245 (51.9)	241 (51.1)	0.982
Number of metastatic organs						
1	75 (15.2)	1250 (26.3)		75 (15.9)	77 (16.3)	
2	27 (5.5)	498 (10.5)		27 (5.7)	31 (6.6)	
>=3	8 (1.6)	122 (2.6)		8 (1.7)	7 (1.5)	
Unknown ^a	118 (24.0)	1999 (42.0)		117 (24.8)	116 (24.6)	

^a, distant organ metastasis was reported, but without detailed information. PSM, propensity-score matching.

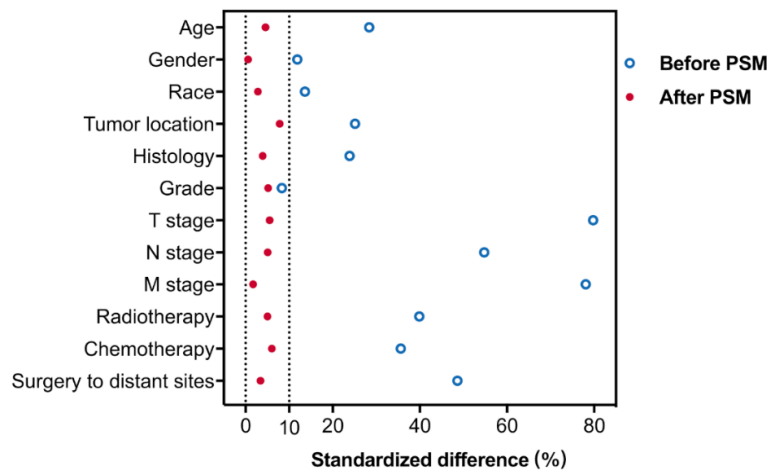


Figure S1 Standardized differences of baseline variables between patients with and without primary tumor surgery before and after PSM. PSM, propensity score matching.

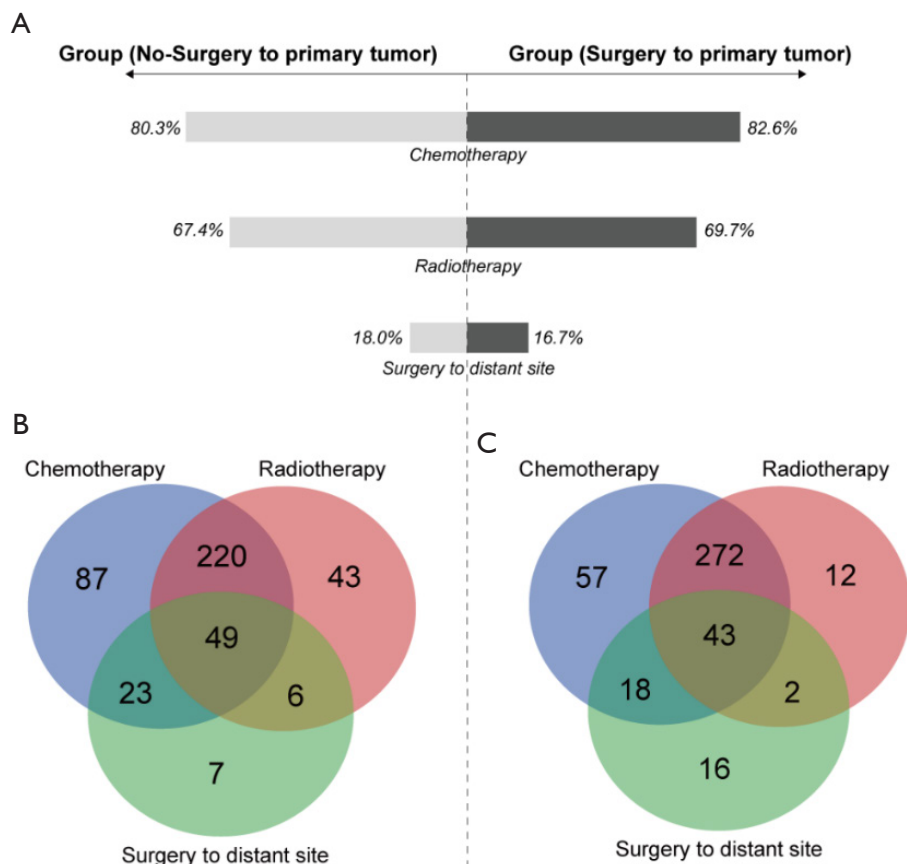


Figure S2 Treatment modalities in patients with and without primary tumor surgery in the matched cohort. (A) Bar chart showing treatment between the two groups (surgery to primary tumor *vs.* no-surgery to primary tumor). (B) Venn diagram showing treatment in the group of no-surgery to primary tumor. (C) Venn diagram showing treatment in the group of surgery to primary tumor.

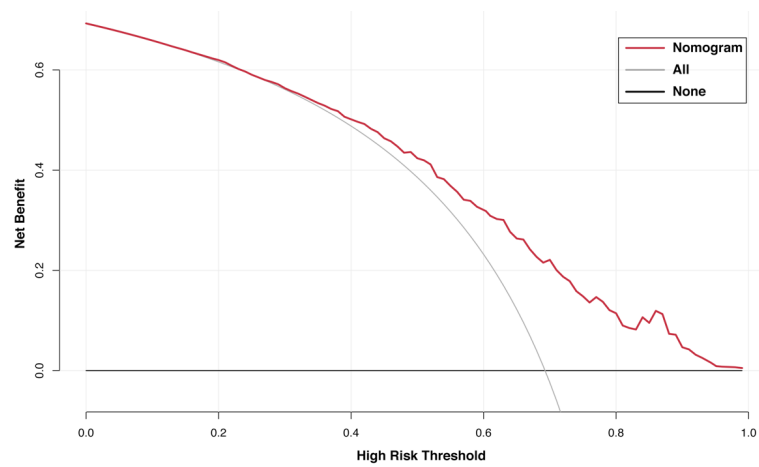


Figure S3 Decision curve analysis for the prediction nomogram. The X-axis represents the threshold probability. The Y-axis measures the net benefit. The red line represents the prediction nomogram. The grey and black line represent the hypothesis that all patients were benefit candidates or no-benefit-candidates, respectively.