Supplementary Table 1. Covariate balance before and after propensity score weighting

Variable	Mean or % (surgery)	Mean or % (no surgery)	Standardized mean difference (before weighting)	Standardized mean difference (after weighting)
Age (years)	63.4	66.1	0.28	0.05
Sex (male %)	37.5%	56.7%	0.39	0.07
ECOG PS (0-1 %)	70.8%	60.0%	0.25	0.04
Tumor location (upper thoracic / middle thoracic/junction)	41.7 / 33.3 / 25.0	60.0/20.0/20.0	0.32	0.06
cT Stage (≤T2 vs. ≥T3)	37.5%	3.3%	0.86	0.08
cN Stage (N0-1 vs. N2-3)	52.2%	60.0%	0.18	0.05
Concurrent CRT (yes %)	70.8%	80.0%	0.24	0.03
Smoking (ever %)	91.7%	86.7%	0.17	0.02
Mean propensity score (SD)	0.58 (0.21)	0.54 (0.22)	—	—

An SMD <0.10 after weighting was considered indicative of adequate balance across covariates
ECOG PS: Eastern Cooperative Oncology Group performance status, CRT: Chemoradiotherapy, SMD: Standardized mean difference

Supplementary Table 2. Baseline characteristics according to cT data availability

Variable	Known cT (n=25)	Unknown cT (n=29)	p value
Age (years)	61.2	67.8	0.045
Sex (male %)	44.0%	55.2%	0.367
ECOG PS (0-1 %)	72.0%	45.0%	0.030
Tumor location (upper thoracic /middle thoracic/ junction)	40.0/36.0/24.0	52.0/31.0/17.0	0.290
cN Stage (N0-1 vs. N2-3)	60.0%	50.0%	0.422
Concurrent CRT (yes %)	76.0%	79.0%	0.788
Surgery performed (%)	56.0%	31.0%	0.040
Smoking (ever %)	88.0%	90.0%	0.812

Patients with unknown cT stage were older, had poorer performance status, and were less likely to undergo surgery, suggesting diagnostic limitations in more frail or inoperable cases
ECOG PS: Eastern Cooperative Oncology Group performance status, CRT: chemoradiotherapy