

Table S1 The univariable analysis of EFS and OS in the entire cohort

Characteristic	EFS			OS		
	HR	95% CI	P	HR	95% CI	P
Age, years						
Continue	1.00	0.98-1.02)	0.783	1.03	1.00-1.06	0.030
Sex						
Female	1			1		
Male	1.22	0.83-1.80	0.319	2.57	1.38-4.77	0.003
ECOG PS						
0	1			1		
1	1.03	0.72-1.48	0.858	1.15	0.72-1.85	0.550
Smoking						
No	1			1		
Yes	1.33	0.94-1.89	0.108	2.16	1.34-3.49	0.016
Histology						
Squamous cell carcinoma	1			1		
Adenocarcinoma	0.67	0.46-0.98	0.044	0.77	0.47-1.26	0.295
Other	0.44	0.14-1.44	0.177	0.40	0.05-2.94	0.365
Method for evaluating lymph node metastasis						
EBUS-TBNA	1			1		
Mediastinoscopy	0.74	0.51-1.07	0.110	0.53	0.32-0.87	0.013
Tumor location						
Right upper lobe	1			1		
Right middle lobe	1.01	0.55-1.88	0.968	0.50	0.17-1.42	0.191
Right lower lobe	1.06	0.66-1.69	0.811	1.24	0.68-2.23	0.485
Left upper lobe	0.96	0.57-1.63	0.877	1.12	0.58-2.19	0.734
Left lower lobe	1.05	0.62-1.79	0.844	1.17	0.59-2.33	0.646
Clinical T classification						
T1	1			1		
T2	1.29	0.86-1.93	0.222	1.28	0.76-2.17	0.351
T3	1.52	0.90-2.56	0.115	1.05	0.53-2.11	0.886
T4	2.45	1.27-4.72	0.007	1.54	0.59-3.99	0.377
Tx	4.54	1.09-18.90	0.038	2.87	0.68-12.10	0.152
Clinical N classification						
N2	1			1		
N3	0.87	0.54-1.40	0.561	0.91	0.48-1.73	0.775

Table S1 (continued)

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Characteristic	EFS			OS		
	HR	95% CI	P	HR	95% CI	P
Involved lymph node station						
Single	1			1		
Multiple	1.46	0.86-2.46	0.162	1.25	0.67-2.32	0.485
Neoadjuvant therapy						
Chemotherapy	1			1		
IO-chemo	0.53	0.34-0.83	0.005	0.47	0.23-0.97	0.040
Targeted therapy	0.48	0.28-0.83	0.009	0.31	0.13-0.78	0.013
Objective response of neoadjuvant therapy						
PR	1			1		
SD	1.22	0.85-1.75	0.271	1.49	0.91-2.45	0.112
PD	-	-	-	6.29	2.17-28.30	<0.001
Subsequent treatments						
Surgery	1			1		
Radiotherapy	1.45	0.94-2.25	0.090	1.78	0.99-3.18	0.052
Systemic therapy	1.21	0.63-2.32	0.575	1.44	0.66-3.18	0.362

EFS, event-free survival; OS, overall survival; ECOG PS, Eastern Cooperative Oncology Group Performance Status; EBUS-TBNA, endobronchial ultrasound-guided transbronchial needle aspiration; TNM, tumor-node-metastasis; PR, partial response; SD, stable disease; PD, progressive disease; IO-chemo, immuno-chemotherapy.

Table S2 The pathological characteristics of the resected patients grouped by neoadjuvant therapy

Characteristic	The entire cohort (N=175)	Chemotherapy (N=85)	IO-chemo (N=58)	Targeted therapy (N=32)	P
Downstaging (TNM stage)					0.009
Yes	122 (69.7)	50 (58.8)	46 (79.3)	26 (81.3)	
No	53 (30.3)	35 (41.2)	12 (20.7)	6 (18.7)	
Downstaging (T stage)					0.119
Yes	115 (65.7)	50 (58.8)	40 (70.0)	25 (78.1)	
No	60 (34.3)	35 (41.2)	18 (30.0)	7 (21.9)	
Downstaging (N stage)					0.015
Yes	124 (70.9)	51 (60.0)	47 (80.0)	26 (81.3)	
No	51 (29.1)	34 (40.0)	11 (20.0)	6 (18.7)	
pCR					<0.001
Yes	24 (13.7)	1 (1.2)	20 (34.5)	3 (9.4)	
No	128 (73.2)	69 (71.2)	31 (53.4)	28 (87.5)	
NA	23 (13.1)	15 (12.6)	7 (12.1)	1 (3.1)	
MPR					<0.001
Yes	48 (26.3)	9 (10.6)	28 (48.3)	9 (28.1)	
No	69 (60.6)	61 (71.8)	23 (39.7)	22 (68.8)	
NA	23 (13.1)	15 (12.6)	7 (12.1)	1 (3.1)	

TNM, tumor-node-metastasis; pCR, pathologic complete response; MPR, major pathologic response; NA, not applicable; IO-chemo, immuno-chemotherapy.

Table S3 The multivariable analysis of EFS and OS in the pN2 subgroup

Characteristic	EFS			OS		
	HR	95% CI	P	HR	95% CI	P
Age, continue				1.03	1.00-1.07	0.058
Sex, male				2.47	0.93-6.56	0.069
Smoking, yes	1.34	0.87-2.06	0.191	1.17	0.56-2.46	0.677
Histology, squamous cell carcinoma	1.23	0.78-1.96	0.378			
Clinical N stage, N3	1.29	0.69-2.44	0.427			
TNM stage, IIIB	1.70	1.01-2.87	0.046			
Neoadjuvant targeted therapy	0.49	0.22-1.11	0.088	0.27	0.07-1.15	0.077
Neoadjuvant IO-chemo	0.64	0.38-1.07	0.092	0.32	0.12-0.82	0.018
Objective response of PD at neoadjuvant therapy	79.35	14.88-423.33	<0.001	3.35	0.74-15.18	0.117
Objective response of SD at neoadjuvant therapy	1.35	0.88-2.09	0.173	1.45	0.80-2.64	0.223

EFS, event-free survival; OS, overall survival; TNM, tumor-node-metastasis; SD, stable disease; PD, progressive disease; IO-chemo, immuno-chemotherapy

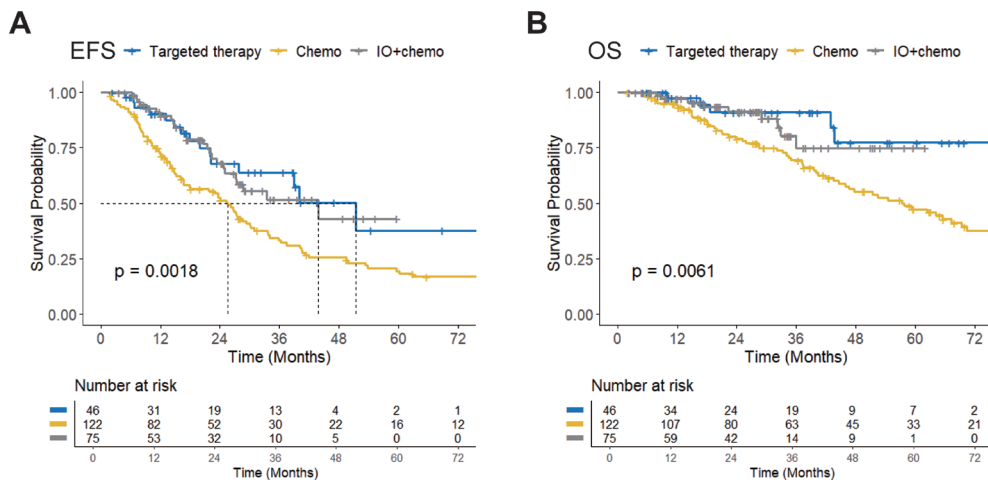


Figure S1 Survival curves of patients treated with targeted therapy, IO-chemo, or chemotherapy in the entire cohort. (A) EFS and (B) OS. EFS, event-free survival; IO-chemo, immuno-chemotherapy; OS, overall survival.

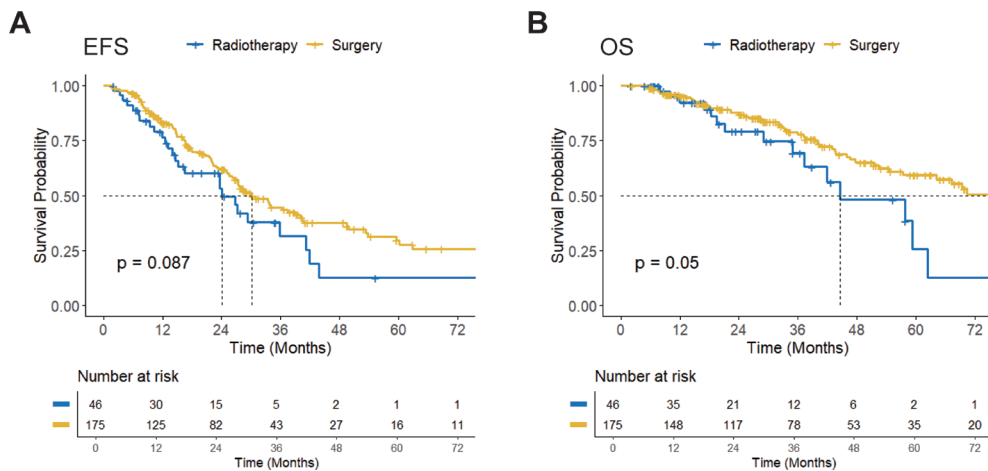


Figure S2 Survival curves of patients receiving radiotherapy and surgery after neoadjuvant therapy in the entire cohort. (A) EFS and (B) OS. EFS, event-free survival; OS, overall survival.

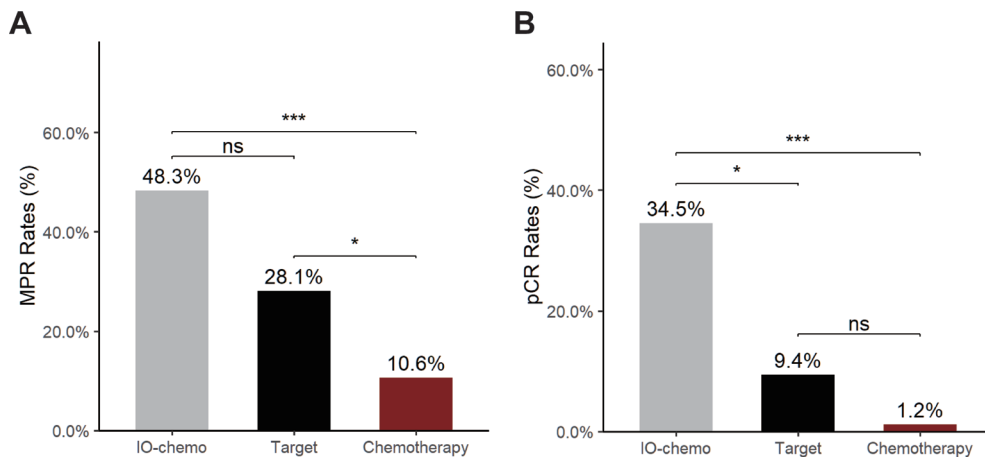


Figure S3 Pathological responses in patients who underwent surgical resection, stratified by neoadjuvant treatment modality. (A) MPR rate and (B) pCR rate. *, $P < 0.05$; ***, $P < 0.001$. MPR, major pathological response; pCR, pathologic complete response.

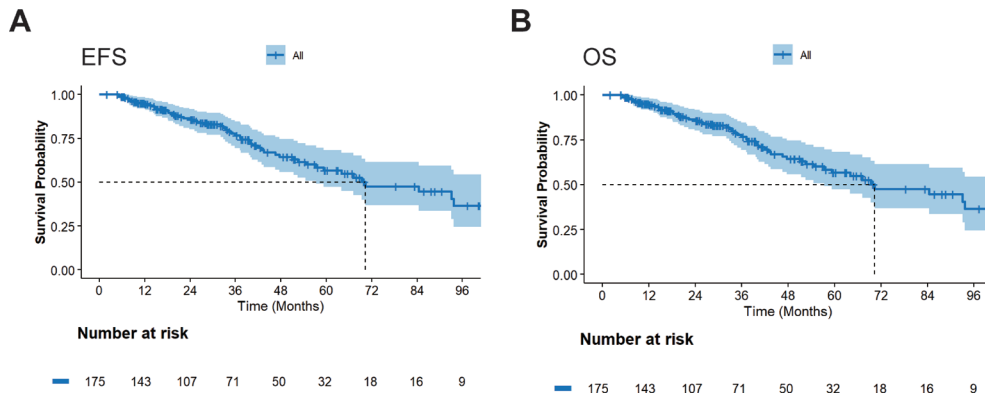


Figure S4 The survival curve of the pN2 subgroup. (A) EFS and (B) OS. EFS, event-free survival; OS, overall survival.

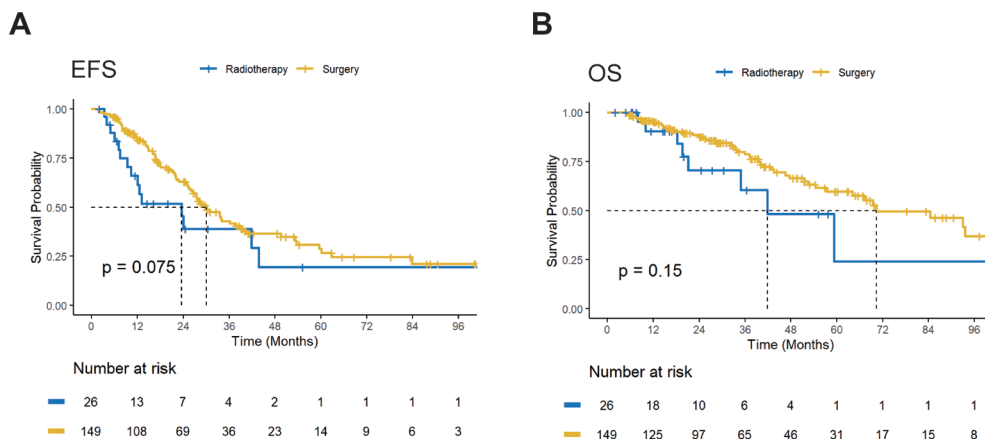


Figure S5 Survival curves of patients receiving radiotherapy and surgery after neoadjuvant therapy in the pN2 subgroup. (A) EFS and (B) OS. EFS, event-free survival; OS, overall survival.

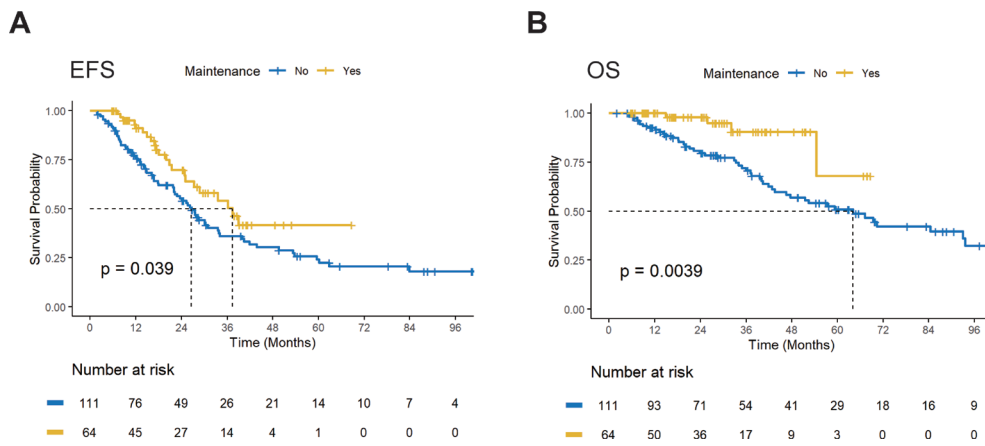


Figure S6 Survival curves of patients with or without maintenance therapy. (A) EFS and (B) OS. EFS, event-free survival; OS, overall survival.