Figure S1 Progression free survival and overall survival based on pathology. (A,B) Non-squamous *vs.* squamous cell carcinoma (A, progression free survival; B, overall survival). (C,D) Kaplan-Meier curves subdivided according to pathology and sex (C, progression free survival; D, overall survival).
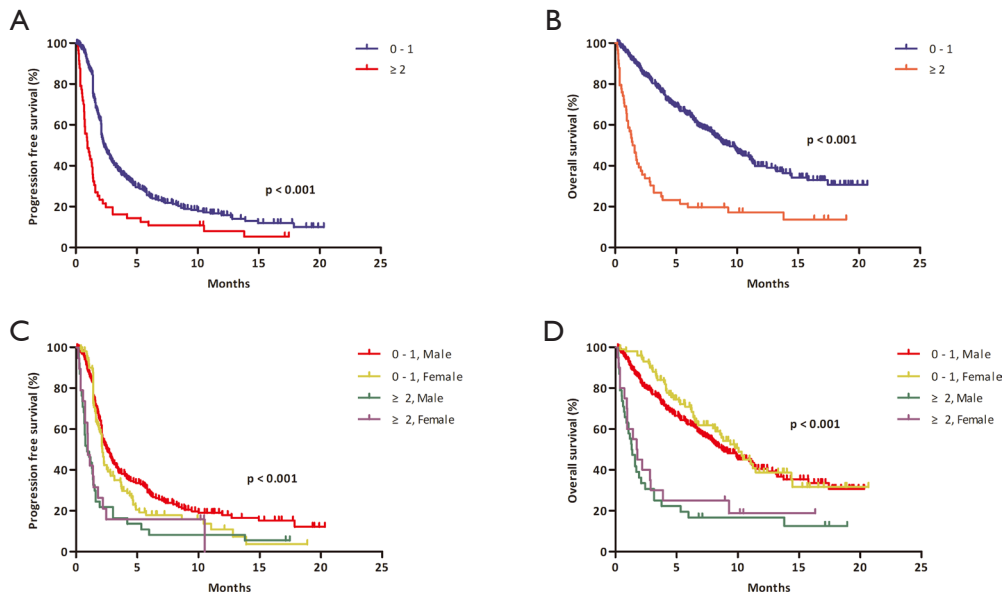

Figure S2 Progression free survival and overall survival based on ECOG PS. (A,B) ECOG PS 0–1 *vs.* ECOG PS ≥2 (A, progression free survival; B, overall survival). (C,D) Kaplan-Meier curves subdivided according to ECOG PS and sex (C, progression free survival; D, overall survival). ECOG PS, Eastern Cooperative Oncology Group performance status.
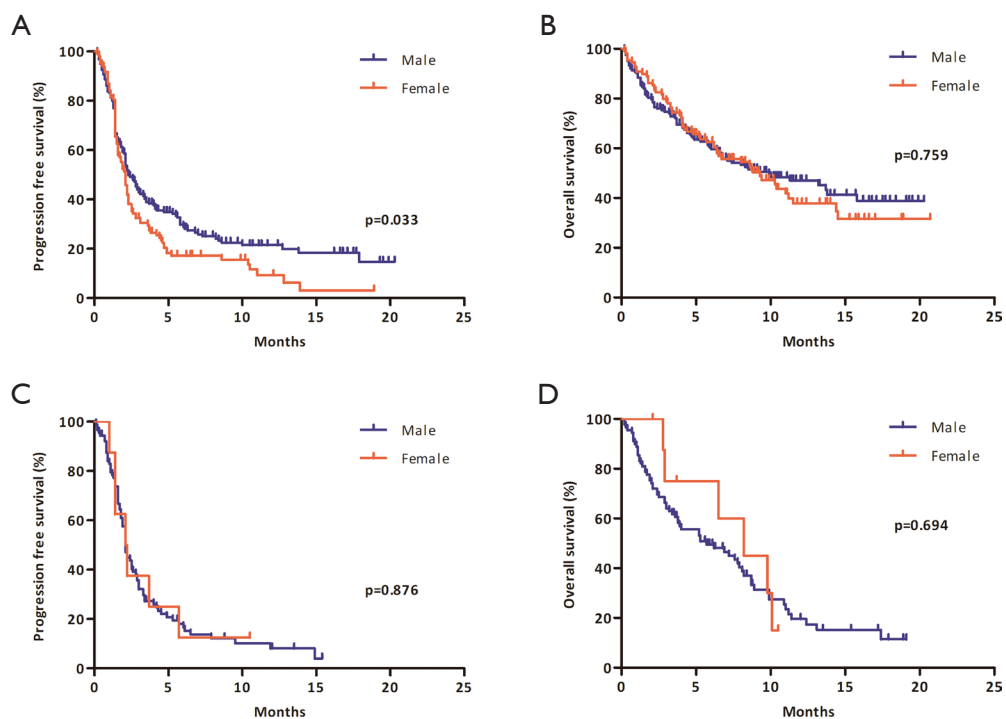
Figure S3 Comparison of Kaplan-Meier curves based on gender in subgroups classified by pathology type. (A) Progression free survival in patients with non-squamous cell carcinoma. (B) Overall survival in patients with non-squamous cell carcinoma. (C) Progression free survival in patients with squamous cell carcinoma. (D) Overall survival in patients with non-squamous cell carcinoma.

Table S1 Cox regression analysis for progression free survival in patients with non-squamous NSCLC

Variables	Univariate analysis			Multivariate analysis		
	HR	95% CI	P value	HR	95% CI	P value
Age	0.993	0.980–1.008	0.360	-	-	-
Male *vs.* female	0.754	0.575–0.988	0.041	0.946	0.607–1.475	0.808
Ever smoker *vs.* never smoker	0.762	0.581–0.999	0.049	0.841	0.633–1.119	0.235
ECOG PS						
0–1	1.000			1.000		
≥2	2.185	1.530–3.120	<0.001	2.074	1.440–2.987	<0.001
Stage						
Stage 3	1.000			-		
Stage 4	1.055	0.737–1.511	0.768	-	-	-
Recurrence	1.041	0.680–1.593	0.854	-	-	-
Treatment line						
Second-line	1.000			1.000		
≥ Third-line	1.314	1.003–1.723	0.048	0.961	0.644–1.435	0.847
PD-L1 status						
<1%	1.000			1.000		
1–49%	0.886	0.635–1.237	0.478	0.988	0.703–1.389	0.945
≥50%	0.461	0.320–0.665	<0.001	0.504	0.349–0.729	<0.001
EGFR						
Wild type	1.000			1.000		
Mutation	1.427	1.069–1.905	0.016	1.370	1.017–1.844	0.038
ALK						
Wild type	1.000			-		
Mutation	0.879	0.390–1.982	0.757	-	-	-

NSCLC, non-small cell lung cancer; HR, hazard ratio; CI, confidence interval; ECOG PS, Eastern Cooperative Oncology Group performance status; PD-L1, programmed cell death-ligand 1; EGFR, epidermal growth factor receptor; ALK, anaplastic lymphoma kinase.

Table S2 Cox regression analysis for overall survival in patients with non-squamous NSCLC

Variables	Univariate analysis			Multivariate analysis		
	HR	95% CI	P value	HR	95% CI	P value
Age	1.005	0.987–1.024	0.563	-	-	-
Male sex	0.949	0.678–1.327	0.758	-	-	-
Ever smoker *vs.* never smoker	0.953	0.681–1.335	0.781	-	-	-
ECOG PS						
0–1	1.000			1.000		
≥2	3.503	2.353–5.216	<0.001	3.535	2.368–5.275	<0.001
Stage						
Stage 3	1.000			1.000		
Stage 4	0.756	0.495–1.156	0.196	0.699	0.456–1.070	0.099
Recurrence	1.186	0.734–1.916	0.487	1.066	0.659–1.726	0.794
Treatment line						
Second-line	1.000			-		
≥Third-line	1.071	0.766–1.498	0.687	-	-	-
PD-L1 status						
<1%	1.000			-		
1–49%	1.149	0.750–1.762	0.523	-	-	-
≥50%	0.845	0.537–1.329	0.466	-	-	-
EGFR						
Wild type	1.000			-		
Mutation	1.126	0.789–1.606	0.513	-	-	-
ALK						
Wild type	1.000			-		
Mutation	1.104	0.451–2.699	0.829	-	-	-

NSCLC, non-small cell lung cancer; HR, hazard ratio; CI, confidence interval; ECOG PS, Eastern Cooperative Oncology Group performance status; PD-L1, programmed cell death-ligand 1; EGFR, epidermal growth factor receptor; ALK, anaplastic lymphoma kinase.