

## Supplementary

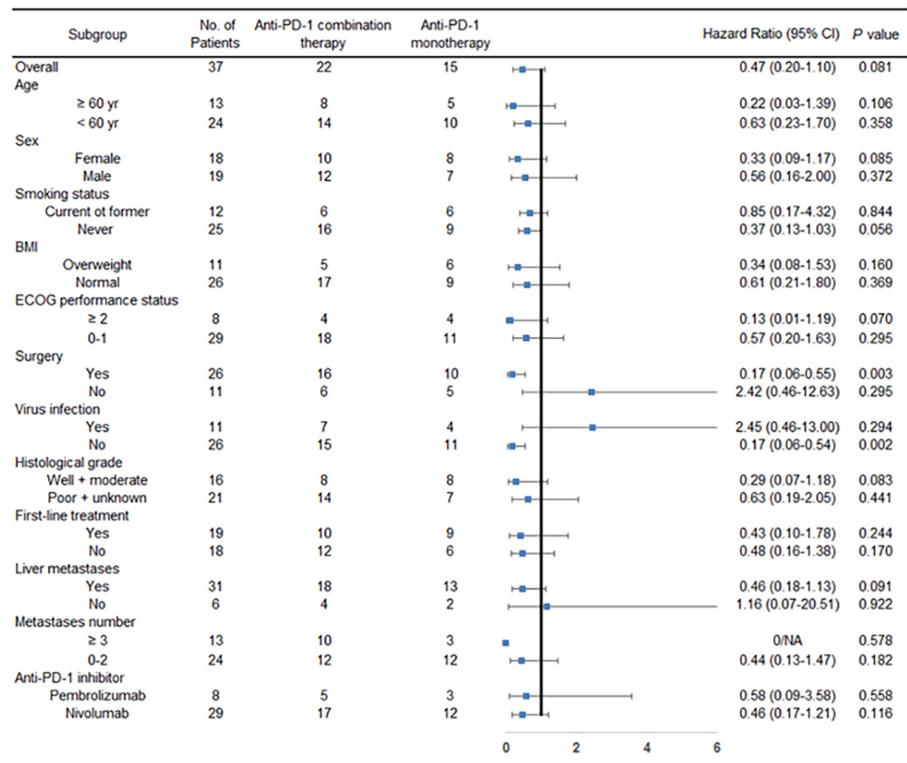
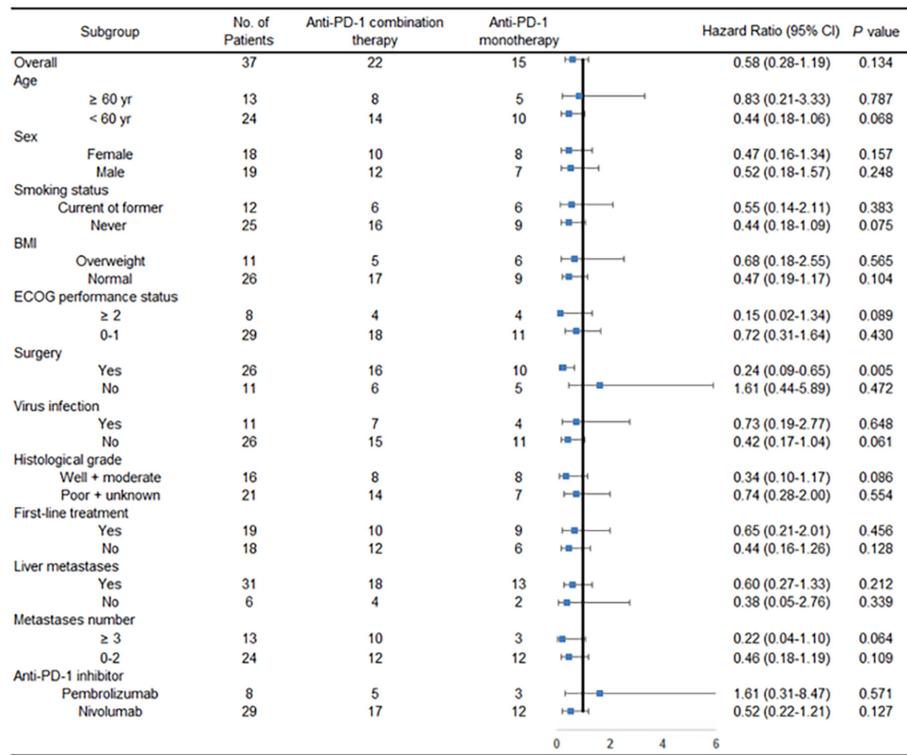
**Table S1** Treatment received by patients in the anti-PD-1 monotherapy and combination group.

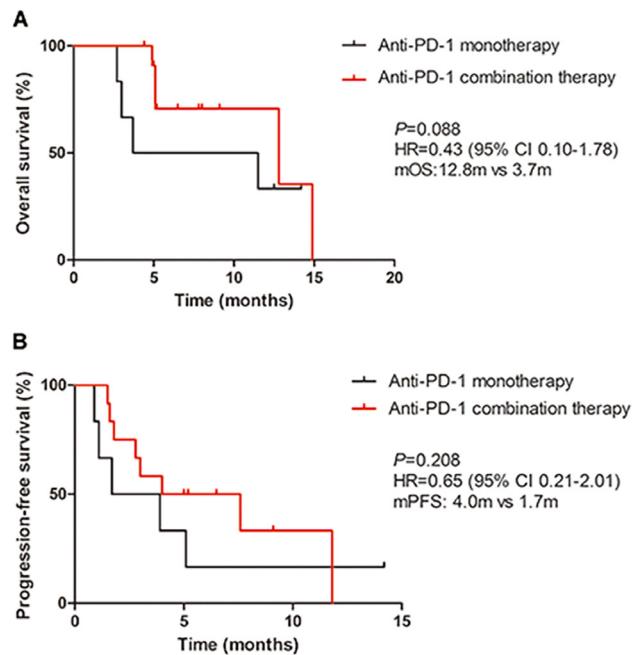
Subject ID	Monotherapy group
Y1809862	pembrolizumab
Y2317141	nivolumab
K0011783	nivolumab
Y2310621	nivolumab
Y0088543	nivolumab
Y1095342	pembrolizumab
Y2074076	nivolumab
F129459	nivolumab
Y1004233	nivolumab
Y1820335	pembrolizumab
K0035132	nivolumab
Y2912819	nivolumab
F154096	nivolumab
Y1809743	nivolumab
Y1095770	nivolumab
Subject ID	Combination therapy group
Y1503747	Pembrolizumab + nimotuzumab
Y1986753	Nivolumab + gemcitabine
Y2340415	Nivolumab + paclitaxel-albumin
Y1325273	Pembrolizumab + paclitaxel-albumin
Y2321289	Nivolumab + oxaliplatin + tegafur
F976637	Nivolumab + apatinib
A159858	Nivolumab + paclitaxel-albumin + S-1
F283855	Nivolumab + gemcitabine
Y1355534	Nivolumab + S-1
Y1490847	Nivolumab + gemcitabine + cisplatin
A284153	Nivolumab + gemcitabine + cisplatin
Y2522731	Nivolumab + gemcitabine + cisplatin
Y2946275	Nivolumab + paclitaxel-albumin
F669590	Nivolumab + gemcitabine + cisplatin
F971599	Pembrolizumab + docetaxel
Y2998674	Pembrolizumab + S-1
Y1770934	Nivolumab + S-1
Y2892524	Nivolumab + gemcitabine + cisplatin
K0041892	Pembrolizumab + nimotuzumab
Y0078386	Nivolumab + gemcitabine + cisplatin
Y2897368	Nivolumab + gemcitabine + cisplatin
Y1703986	Nivolumab + S-1

**Table S2** Tumor response to treatment for first-line treatment or beyond

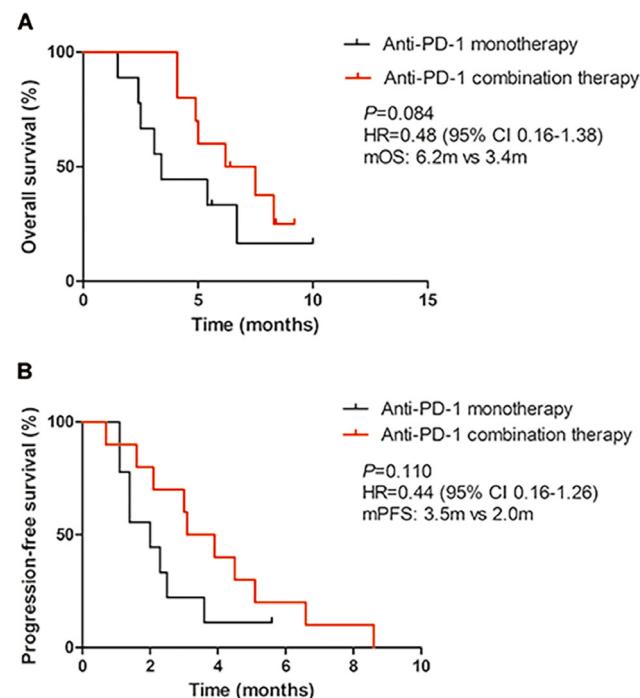
	ORR		DCR	
	First-line	Over first-line	First-line	Over first-line
Anti-PD-1 monotherapy group	0	0	4 (66.7%)	6 (66.7%)
Anti-PD-1 combination group	4 (33.3%)	0	10 (83.3%)	9 (90%)
P value	0.245	-	0.638	0.303

Note: a, PD-1, programmed death protein 1b, ORR, Objective response rate; c, DCR, Disease control rate.

**A****B****Figure S1** Treatment effect on overall survival (A) and progression-free survival (B) according to subgroup.



**Figure S2** Kaplan-Meier estimates of overall survival and progression-free survival of patients as first-line treatment. (A) Kaplan-Meier survival curves of overall survival comparing anti-PD-1 monotherapy and combination therapy as the first-line treatment. (B) Kaplan-Meier survival curves of progression-free survival comparing anti-PD-1 monotherapy and combination therapy as the first-line treatment.



**Figure S3** Kaplan-Meier estimates of overall survival and progression-free survival of patients as second-line treatment or beyond. (A) Kaplan-Meier survival curves of overall survival comparing anti-PD-1 monotherapy and combination therapy as the second-line treatment or beyond. (B) Kaplan-Meier survival curves of progression-free survival comparing anti-PD-1 monotherapy and combination therapy as the second-line treatment or beyond.