

Table SI. Relation between nivolumab efficacy and clinical characteristics in male patients.

Characteristic	Nivolumab efficacy		Disease Control Rate	P-value
	PR+SD group n = 9	PD group n = 10		
Age, years	74.1±2.4	74.6±3.0		0.9015
Body weight, kg	62.7±2.0	49.3±2.2		0.0003
Body height, cm	166.6±1.5	161.5±2.6		0.1067
BMI, kg/m ²	22.56±0.56	18.88±0.69		0.0007
Tumor depth				
T1/T2/T3/T4a	4	6	40.0%	0.6563
T4b	5	4	55.6%	
LN status				
N0/N1	1	3	25.0%	0.5820
N2/N3/N4	8	7	53.3%	
Metastasis				
M0	8	9	47.1%	1.0000
M1	1	1	50.0%	
Administrated courses				
≤4	1	9	10.0%	0.0055
4	7	2	77.8%	
Total	9	10	47.4%	-

BMI, body mass index; LN, lymph node.

Table SII. Association between blood test results and nivolumab efficacy among male patients.

Items	Nivolumab efficacy		P-value
	PR + SD group (n=9)	PD group (n=10)	
WBC, /mm ³	4,522±267	6,420±635	0.0173
Neutrophil, %	68.87±1.90	70.46±1.99	0.5701
Eosinophil, %	2.10±0.62	2.24±0.65	0.8786
Basophil, %	0.71±0.08	0.38±0.08	0.0078
Monocyte, %	9.93±1.93	9.02±0.95	0.5228
Lymphocyte, %	18.39±1.51	17.90±1.53	0.8230
HGB, g/dl	11.21±0.61	11.34±0.52	0.8739
PLT, x10 ⁴ /mm ³	178.0±19.1	251.7±28.5	0.0479
TP, g/dl	6.36±0.15	6.58±0.09	0.2256
ALB, g/dl	3.84±0.13	3.43±0.17	0.0692
AST, IU/ml	25.1±2.8	31.9±7.0	0.3887
ALT, IU/ml	17.6±4.1	36.2±12.3	0.1780
LDH, IU/ml	197.1±8.7	196.5±18.9	0.9770
T-BIL, mg/dl	1.07±0.49	0.57±0.06	0.3465
CRE, mg/dl	0.952±0.064	0.735±0.069	0.0348
eGFR, ml/min/1.73 m ²	63.02±6.23	84.95±6.90	0.0305
CCr, ml/min	64.13±7.60	64.64±5.94	0.9588
CRP, mg/dl	0.226±0.118	1.378±0.645	0.1104
NLR	3.99±0.37	4.32±0.51	0.6063
PNI	42.51±1.23	40.01±1.50	0.2146
CAR	0.062±0.034	0.462±0.225	0.1113

Data are presented as mean ± standard error of the mean. WBC, white blood cell count; HGB, hemoglobin; PLT, platelet count; TP, total protein; ALB, albumin; AST, aspartate aminotransferase; ALT, alanine aminotransferase; LDH, lactate dehydrogenase; T-BIL, total bilirubin; eGFR, estimated glomerular filtration rate; Ccr, creatinine clearance; CRP, C-reactive protein; NLR, neutrophil to lymphocyte ratio; PNI, prognostic nutritional index; CAR, CRP to albumin ratio.

Table SIII. Association of the classifications (BW, WBC, basophil, platelet, albumin, and CRP) and nivolumab efficacy in male patients.

Item	Nivolumab efficacy		Disease Control Rate	P-value
	PR+SD group (n=9)	PD group (n=10)		
Body weight, kg				
≥ 53.5	9	3	75.0%	0.0031
< 53.5	0	7	0.0%	
WBC, /mm ³				
$\leq 5,000$	8	2	80.0%	0.0055
$> 5,000$	1	8	11.1%	
Basophil, %				
≥ 0.6	7	2	77.8%	0.0230
< 0.6	2	8	20.0%	
Platelet, x10 ⁴ /mm ³				
≥ 145	4	10	28.6%	0.0108
< 145	5	0	100.0%	
Albumin, mg/dl				
≥ 3.9	6	1	85.7%	0.0198
< 3.9	3	9	25.0%	
CRP, mg/dl				
≤ 0.10	6	0	100.0%	0.0031
> 0.10	3	10	23.1%	
Total	9	13	40.9%	-

WBC, white blood cell count; CRP, C-reactive protein.

Table SIV. Association between sex and featured six variants.

Items	Sex		P-value
	Male (n=19)	Female (n=3)	
Body weight, kg	55.6±2.1	41.6±2.0	0.0015
WBC, /mm ³	5521±413	6100±1081	0.6560
Basophil, %	0.54±0.07	0.40±0.11	0.3699
PLT, x10 ⁴ /mm ³	216.8±19.1	273.7±68.7	0.4986
ALB, g/dl	3.62±0.12	3.37±0.33	0.5191
CRP, mg/dl	0.832±0.362	0.430±0.140	0.3124

Data are presented as mean ± standard error of the mean. WBC, white blood cell count; PLT, platelet count; ALB, albumin; CRP, C-reactive protein.