

S3 Table. Univariate and multivariate analyses for overall survival in 124 evaluable patients with R/M HNSCC receiving ICIs

Characteristic	Univariate		Multivariate	
	Hazards ratio (95% CI)	p-value	Hazards ratio (95% CI)	p-value
Age (yr)				
> 60 vs. ≤ 60	0.85 (0.51-1.39)	0.508		
Sex				
Male vs. female	0.67 (0.36-1.25)	0.206		
ECOG PS				
2-3 vs. 0-1	4.64 (2.54-8.47)	< 0.001	4.79 (2.31-9.95)	< 0.001
Smoking history				
Current or former vs. never	1.67 (0.90-3.09)	0.102		
HPV status				
HPV + vs. HPV–	0.69 (0.34-1.38)	0.291		
Unknown vs. HPV–	0.84 (0.47-1.50)	0.552		
Primary tumor location				
Oropharynx vs. non-oropharynx	0.46 (0.24-0.86)	0.016		
Histologic grade				
Poorly vs. moderate vs. well	0.76 (0.49-1.18)	0.227		
Sum of target lesions (mm)				
> 40 vs. ≤ 40	1.96 (1.18-3.26)	0.009	1.93 (1.08-3.43)	0.025
Prior lines of systemic therapy				
0	1 ^{a)}			
1	1.49 (0.62-3.55)	0.369		
2	1.32 (0.52-3.33)	0.553		
≥ 3	0.86 (0.26-2.81)	0.802		
Neutrophil to lymphocyte ratio ^{b)}				
> 4 vs. ≤ 4	2.49 (1.44-4.31)	< 0.001	3.36 (1.74-6.49)	< 0.001
Immune-checkpoint inhibitors				
Anti-PD-1	1 ^{a)}			
Anti-PD-L1	0.89 (0.49-1.64)	0.716		
Anti-PD1/anti-PD-L1+anti-CTLA4	0.60 (0.30-1.20)	0.149		

CI, confidence interval; CTLA-4, cytotoxic T-lymphocyte antigen 4; ECOG, Eastern Cooperative Oncology Group; HPV, human papillomavirus; PD-1, programmed cell death protein-1; PD-L1, programmed death-ligand 1; PS, performance status; R/M HNSCC, recurrent or metastatic head and neck squamous cell cancer. ^{a)}Reference, ^{b)}The neutrophil-to-lymphocyte ratio is defined as the absolute neutrophil count divided by the absolute lymphocyte count.