

Characteristic	Univariate		Multivariate	
	HR (95% CI)	<i>p</i> value	HR (95% CI)	p value
Gender				
Male vs. female	0.80 (0.46-1.40)	0.431		
ECOG PS				
2–3 vs. 0–1	1.92 (0.77–4.79)	0.160		
Smoking history				
Current or former vs. never	1.04 (0.63–1.73)	0.876		
Alcohol history				
Drink vs. Do not drink	1.25 (0.72–2.18)	0.419		
HPV status				
Positive vs. Negative	0.27 (0.11–0.67)	0.005	0.32 (0.14–0.74)	0.008
Unknown vs. Negative	1.06 (0.65–1.72)	0.817		
Primary tumor location				
Oropharynx	1 (reference)			
Oral cavity	1.41 (0.84–2.37)	0.195		
Hypopharynx	1.92 (1.06–3.50)	0.032		
Larynx	0.94 (0.45–1.96)	0.860		
Others	1.13 (0.40–3.19)	0.821		
T classification	1.50 (1.21–1.86)	< 0.001	1.36 (1.09–1.70)	0.006
N classification	1.70 (1.22–2.36)	0.002	1.66 (1.22–2.26)	0.001
Induction chemotherapy				
Yes vs. No	1.82 (1.19–2.77)	0.005		
Treatment strategy				
CCRT	1 (reference)		1 (reference)	
Surgery	0.79 (0.50–1.25)	0.314		
Inadequate	2.96 (1.52–5.77)	0.001	2.28 (1.18–4.37)	0.014

Supplementary Table 2. Univariate and multivariate analyses for overall survival in 362 patients in age < 70

HR, hazard ratio; CI, confidence interval; ECOG, Eastern Cooperative Oncology Group; PS, performance status; HPV, human papilloma virus; CCRT, concurrent chemoradiotherapy.