S1 Table. Univariate and multivariate analysis of factors associated with anal cancer (bulky nodal status as N0 vs non-bulky N+ vs bulky N+)

Factor	Univariate HR (95% CI)	p-value	Multivariate HR (95% CI)	p-value	Univariate HR (95% CI)	p-value	Multivariate HR (95% CI)	p-value
Age (yr) (≤ 60 vs > 60)	0.9 (0.41-1.99)	0.791			1.64 (0.60-4.52)	0.335		
Sex (female vs. male)	1.58 (0.68-3.70)	0.291			**2.64 (0.98-7.09)**	**0.055**	2.68 (0.91-7.89)	0.074
ECOG PS (continuous)	2.4 (1.12-5.13)	0.024	2.46 (1.16-5.20)	0.018	3.75 (1.50-9.35)	0.005	3.22 (1.13-9.19)	0.029
Local excision (no vs. yes)	0.67 (0.23-1.98)	0.47			1.08 (0.34-3.37)	0.897		
P16 (N/A vs. yes)	1.45 (0.49-4.27)	0.499			1.10 (0.25-4.89)	0.903		
Tumor grade (continuous)	0.69 (0.49-0.98)	0.04	-	-	0.88 (0.61-1.29)	0.518		
T category (T1/2 vs. T3/4)	2.68 (1.17-6.16)	0.02	-	-	2.32 (0.84-6.45)	0.106		
N category (N0 vs. N1)	1.24 (0.56-2.75)	0.59			0.92 (0.35-2.39)	0.858		
Bulky nodal status (N0 vs non-bulky N+)	0.97 (0.41-2.29)	0.94	1.04 (0.44-2.46)	0.938	0.92 (0.35-2.39)	0.48	0.55 (0.17-1.73)	0.302
(N0 vs bulky N+)	4.05 (1.26-13.03)	0.019	4.69 (1.40-15.73)	0.012	4.48 (1.10-18.3)	0.037	3.40 (0.82-14.1)	0.091
(non-bulky N+ vs bulky N+)	4.19 (1.27-13.82)	0.019	4.69 (1.40-15.73)	0.012	4.48 (1.10-18.3)	0.037	6.25 (1.37-28.49)	0.018
Baseline NLR (< 2.5 vs. ≥ 2.5)	1.58 (0.66-3.80)	0.302			3.75 (1.28-10.98)	0.016	2.87 (0.91-9.04)	0.072
Post-treatment NLR (< 2.5 vs. ≥ 2.5)	1.37 (0.63-2.97)	0.424			1.1 (0.44-2.79)	0.834		
Post-treatment lymphopenia (< 0.5 vs. ≥ 0.5)	0.71 (0.24-2.09)	0.534			0.60 (0.17-2.13)	0.427		
RT technique (3D-CRT vs. IMRT)	1.01 (0.43-2.35)	0.981			1.76 (0.63-4.92)	0.281		

RT dose (≤ 54 vs. > 54)	1.08 (0.48-2.42)	0.846		0.85 (0.32-2.27)	0.75
Chemotherapy (MMC vs. non-MMC)	1.50 (0.63-3.56)	0.356		0.99 (0.34-2.91)	0.988

CI, confidence interval; ECOG PS, European Cooperative Oncology Group performance status; HR, hazard ratio; MMC, mitomycin C; N/A, not available;

NLR, neutrophil-lymphocyte ratio; RT, radiotherapy.