

**S2 Table.** Multivariate analysis performed with time dependent Cox regression of variables correlated to survival

Endpoint	Factor	HR (95% CI)	p-value
OS	Age	1.30 (0.86-1.98)	0.214
	Sex	1.16 (0.69-1.94)	0.573
	T stage	1.03 (0.76-1.40)	0.849
	N stage	1.43 (1.07-1.90)	0.015
	Family history	1.07 (0.58-1.97)	0.822
	Smoking	1.25 (0.77-2.03)	0.361
	Pre-EBV DNA	1.93 (1.26-2.96)	0.003
	VCA-IgA	0.81 (0.41-1.58)	0.531
	EA-IgA	0.67 (0.35-1.28)	0.225
	Chemotherapy cycles	0.91 (0.61-1.36)	0.644
	Dose of nasopharynx	0.94 (0.62-1.41)	0.748
	Dose of neck	1.33 (0.88-2.03)	0.176
	Treatment days	0.89 (0.58-1.34)	0.565
	ALC <sup>a)</sup>	0.995 (0.991-0.999)	0.025
PFS	Age	1.05 (0.73-1.53)	0.786
	Sex	1.10 (0.70-1.72)	0.685
	T stage	1.13 (0.87-1.47)	0.370
	N stage	1.37 (1.07-1.75)	0.013
	Family history	1.01 (0.58-1.77)	0.966
	Smoking	1.23 (0.80-1.88)	0.346
	pre-EBV DNA	1.95 (1.34-2.83)	0.001
	VCA-IgA	0.96 (0.53-1.74)	0.881
	EA-IgA	0.79 (0.45-1.38)	0.405
	Chemotherapy cycles	0.95 (0.66-1.36)	0.773
	Dose of nasopharynx	1.03 (0.72-1.48)	0.853
	Dose of neck	1.10 (0.77-1.59)	0.603
	Treatment days	1.02 (0.71-1.47)	0.907
	ALC <sup>a)</sup>	0.993 (0.988-0.998)	0.006
DMFS	Age	0.91 (0.57-1.45)	0.690
	Sex	1.54 (0.87-2.72)	0.140
	T stage	1.12 (0.81-1.55)	0.510
	N stage	1.33 (0.98-1.82)	0.070
	Family history	1.41 (0.74-2.67)	0.295
	Smoking	0.97 (0.57-1.62)	0.893
	Pre-EBV DNA	2.21 (1.38-3.54)	0.001
	VCA-IgA	0.72 (0.33-1.56)	0.402
	EA-IgA	1.08 (0.52-2.25)	0.842
	Chemotherapy cycles	0.89 (0.57-1.39)	0.598
	Dose of nasopharynx	1.22 (0.78-1.92)	0.380
	Dose of neck	1.10 (0.69-1.74)	0.695
	Treatment days	1.19 (0.76-1.88)	0.450
	ALC <sup>a)</sup>	0.994 (0.988-1.00)	0.055

HR, hazard ratio; CI, confidence interval; OS, overall survival; EBV, Epstein-Barr virus; VCA, viral capsid antigen; EA, early antigen; ALC, absolute lymphocyte counts; PFS, progression-free survival; DMFS, distant metastasis-free survival. <sup>a)</sup>A Cox regression model using ALC as a time-dependent variable.