

Dynamic Change in Plasma Epstein–Barr virus DNA Load Over a Long Term Follow-up Period Predicts Prognosis in Nasopharyngeal Carcinoma

Supplementary Data

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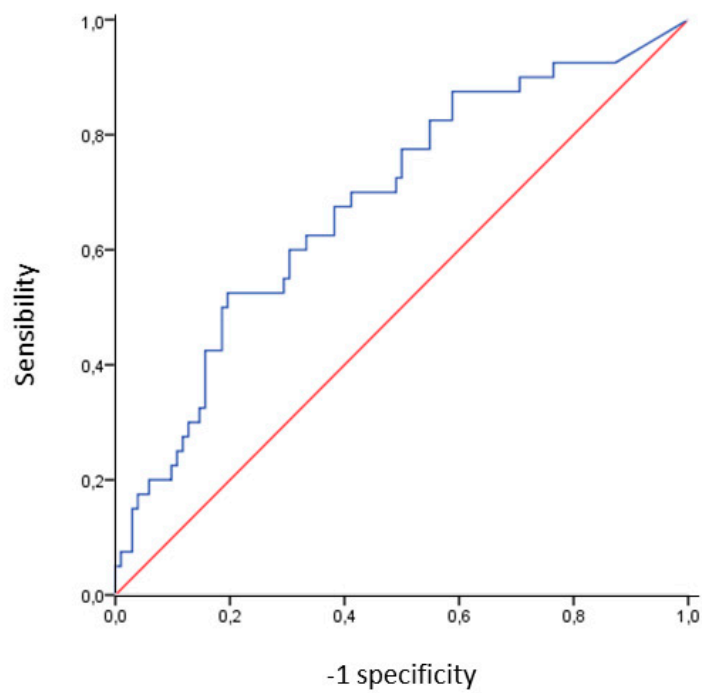


Figure S1: Time-dependent receiver operating characteristic curve analysis of OS prediction of NPC patients based on the pre-EBV DNA load. The area under the curve was 0.67 ($p=0.00$, 95% CI 0.59–0.79), and 4000 UI/ml was determined as the pre-EBV DNA load best cutoff value for survival prediction.

Table S1: Socio-economic and clinical features of NPC patients recruited in the study (n=142)

Characteristics	Number of cases	%
Age		
[12-21]	22/142	15.5
[22-32]	13/142	9.2
[33-42]	21/142	14.8
[43-52]	36/142	25.4
[53-62]	35/142	24.6
[63-72]	14/142	9.9
>72	1/142	0.7
Gender		
Female	53/142	37.3
Male	89/142	62.7
TABAC		
No	115/142	81.0
Yes	27/142	19.0
ALCOOL		
No	123/142	86.6
Yes	19/142	13.4
Histological type		
Keratinizing squamous cell carcinoma	1/142	0.7
Non-keratinizing differentiated carcinoma	7/142	4.9
Non-keratinizing undifferentiated carcinoma	131/142	92.3
Others	3/142	2.1
TNM classification		
T1-T2	34/142	23.9
T3-T4	108/142	76.1
N0-N1	84/142	33.8
N2-N3	94/142	66.2
M0	96/142	67.6
M1	46/142	32.4
Stage of the disease		
I	3/142	2.1
II	14/142	9.9
III	33/142	23.2
IV	92/142	64.8

Table S2: Characteristic of patients with undetectable end-EBV DNA load and detectable 6 (and/or)18-months post-EBV DNA load

Code of patient	22	27	42	46	67	87	90	129
Age	51	12	53	44	45	58	34	39
Gender	Male	Male	Male	Female	Male	Female	Female	Male
TNM classification	T4N2M0	T4N1M0	T3N1M1	T2N1M0	T1N2M0	T4N1M0	T3N2M0	T2N3M0
Stage of the disease	IVA	IVA	IVC	II	III	IVA	III	IVB
Therapy	NCT*+ RT**	NTC+RC C***	NTC+RC C	RCC	NTC+RCC	NTC+RC C	NCT+RT	NCT+RT
Pre-EBV DNA load (UI/ml)	60126	6387	18741	5361	624	12774	72213	669
End-EBV DNA load (UI/ml)	0	0	0	0	0	0	0	0
6- months post-EBV DNA load (UI/ml)	0	73.2	0	0	877	537	700	169.6
18- months post-EBV DNA load (UI/ml)	4000	-	500	9.8	-	-	-	-
Disease failure	Local failure and distant metastasis	Distant metastasis	Distant metastasis	Absent	Absent	Locoregional failure	Absent	Locoregional failure
Time to declaration (month)	17	7	23	-	-	32	-	20
Outcome at last time of follow-up	Alive	Dead	Alive	Alive	Alive	Alive	Alive	Alive
Follow-up time (month)	25	8	39	50	40	35	22	28




*NCT: neoadjuvant chemotherapy; ** RT: radiotherapy; *** RCC: concomitant chemoradiotherapy

Table S3: 4-years survival rates (OS and PFS) comparisons between among subgroups of patients according to pre-EBV DNA load and TNM classification

	OS rates*		PFS rates*	
	LOW pre-EBV DNA load (< 4000 UI/ml)	High pre-EBV DNA load (≥ 4000 UI/ml)	LOW pre-EBV DNA load (< 4000 UI/ml)	High pre-EBV DNA load (≥ 4000 UI/ml)
Tumor classification				
T1 (13)	88.9%	100%	66.7%	50.0%
T2 (21)	77.8%	43.8%	56.8%	29.2%
T3 (46)	82.6%	48.9%	69.8%	12.3%
T4 (62)	86.3%	54.0%	75.1%	20.7%
Lymph node status				
N0 (11)	100%	100%	85.7%	100%
N1 (37)	88.8%	76.2%	77.9%	34.2%
N2 (63)	75.9%	54.2%	70.6%	13.1%
N3 (31)	55.6%	30.5%	33.3%	0.00%
Metastasis status				
M0	86.0%	77.3%	73.7%	36.7%
M1	54.5%	15.0%	45.5%	0.00%
Stage of the disease				
I (3)	100%	100%	100%	-
II (14)	83.3%	100%	83.3%	100%
III (33)	81.9%	76.9%	75.5%	24.3%
IVA (36)	93.8%	76.5%	79.1%	37.6%
IVB (11)	75.0%	64.3%	25.0%	0.00%
IVC (46)	54.5%	14.8%	45.5%	0.00%

Abbreviations: OS: overall survival; PFS: progression-free survival.

*Survival rates were calculated using the Kaplan-Meier method.

 Low risk group
 Middle risk group
 High risk group