

On-line Table 1: Summary of patient information

Patient No.	Sex	Age (yr)	WHO Classification ^a	Tumor Staging	Clinical Staging (AJCC/UICC)	Neoadjuvant Chemotherapy			Radiotherapy		
						Pretarget Lesion (mm) ^b	Posttarget Lesion (mm)	Shrinking Ratio	Response	With Concurrent Chemotherapy	Response
1	M	50	Undifferentiated	T3N2M0	III	26	13	50.00	PR	Yes	CR
2	F	56	Undifferentiated	T2N3M0	IVa	88	63	28.41	SD	No	PR
3	M	53	Undifferentiated	T2N3M0	IVa	59	25	57.63	PR	Yes	CR
4	M	45	Undifferentiated	T3N2M0	III	60	30	50.00	PR	Yes	CR
5	F	40	Undifferentiated	T3N2M0	III	69	53	23.19	SD	Yes	CR
6	M	47	Differentiated	T3N2M1	IVb	61	40	34.43	PR	No	SD
7	M	62	Differentiated	T3N2M0	III	47	30	36.17	PR	Yes	SD
8	M	38	Differentiated	T1N3M0	IVa	126	101	19.84	SD	Yes	PR
9	M	45	Undifferentiated	T2N2M0	III	24	18	25.00	SD	No	PR
10	M	46	Undifferentiated	T1N2M0	III	26	16	38.46	PR	No	PR
11	M	57	Differentiated	T2N2M0	III	49	14	71.43	PR	Yes	CR
12	M	63	Undifferentiated	T3N2M0	III	126	7	94.44	PR	No	CR
13	M	41	Differentiated	T3N2M0	III	69	48	30.43	PR	No	CR
14	M	17	Differentiated	T4N2M0	IVa	46	19	58.70	PR	No	PR
15	F	56	Differentiated	T2N3M0	IVa	37	26	29.73	SD	No	SD
16	M	53	Undifferentiated	T2N3M0	IVa	38	21	44.74	PR	Yes	PR
17	F	39	Undifferentiated	T2N2M0	III	27	21	22.22	SD	Yes	SD
18	M	46	Differentiated	T4N2M0	IVa	69	38	44.93	PR	Yes	PR
19	F	34	Differentiated	T2N2M0	III	71	43	39.44	PR	Yes	PR
20	F	45	Undifferentiated	T1N2M0	III	16	8	50.00	PR	Yes	CR
21	F	64	Undifferentiated	T3N2M1	IVb	22	0	100.00	CR	No	CR
22	M	43	Undifferentiated	T1N3M0	IVa	85	50	41.18	PR	Yes	CR
23	F	50	Undifferentiated	T4N3M0	IVa	55	20	63.64	PR	Yes	CR
24	M	38	Undifferentiated	T3N2M1	IVb	78	21	73.08	PR	No	CR
25	M	53	Differentiated	T4N1M0	IVa	35	27	22.86	SD	No	PR
26	M	66	Undifferentiated	T4N1M0	IVa	62	36	41.94	PR	No	CR
27	M	59	Differentiated	T3N2M0	III	46	42	8.70	SD	No	SD
28	M	50	Undifferentiated	T4N2M0	III	61	54	11.48	SD	Yes	SD
29	M	67	Undifferentiated	T4N1M0	IVa	64	44	31.25	PR	Yes	CR
30	M	47	Undifferentiated	T4N2M0	IVa	44	34	22.73	SD	Yes	CR
31	M	53	Undifferentiated	T4N2M0	IVa	46	36	21.74	SD	Yes	CR
32	M	18	Undifferentiated	T3N2M0	III	34	32	5.88	SD	Yes	SD
33	M	53	Undifferentiated	T3N2M0	III	42	6	85.71	PR	Yes	CR
34	M	46	Undifferentiated	T4N2M0	IVa	60	59	1.67	SD	No	PR
35	M	54	Undifferentiated	T3N2M0	IVa	28	16	42.86	PR	No	SD
36	F	52	Undifferentiated	T4N2M0	III	40	10	75.00	PR	No	CR

Note—AJCC/UICC indicates American Joint Committee on Cancer/Union for International Cancer Control; WHO, World Health Organization.

^a For WHO classification: "Undifferentiated" indicates undifferentiated carcinoma; "Differentiated," nonkeratinizing differentiated carcinoma.

^b The pretarget and posttarget lesions indicate the diameter of target lesions before and after neoadjuvant chemotherapy.

On-line Table 2: Parameters before NAC for prediction of NAC response

Parameters	Respond Group	Nonrespond Group	P Value
No.	23	13	
Pre-ADC _{standard} ($\times 10^{-3} \text{mm}^2/\text{s}$)	0.95 \pm 0.12	0.83 \pm 0.14	.008
Pre-ADC _{10th} ($\times 10^{-3} \text{mm}^2/\text{s}$)	0.52 \pm 0.06	0.46 \pm 0.06	.007
Pre-ADC _{25th} ($\times 10^{-3} \text{mm}^2/\text{s}$)	0.55 \pm 0.08	0.50 \pm 0.06	.047
Pre-ADC _{50th} ($\times 10^{-3} \text{mm}^2/\text{s}$)	0.63 \pm 0.10	0.54 \pm 0.06	.006
Pre-D _{10th} ($\times 10^{-3} \text{mm}^2/\text{s}$)	0.69 \pm 0.13	0.57 \pm 0.09	.007
Pre-D _{25th} ($\times 10^{-3} \text{mm}^2/\text{s}$)	0.79 \pm 0.14	0.67 \pm 0.09	.005
Pre-D _{50th} ($\times 10^{-3} \text{mm}^2/\text{s}$)	0.96 \pm 0.17	0.79 \pm 0.09	.002
Pre-K _{50th}	0.90 \pm 0.15	1.02 \pm 0.12	.018

On-line Table 3: The results of ROC analysis

Parameters	AUC (95% CI)	Cutoff ^a	Sensitivity	Specificity
Respond vs nonrespond				
Pre-ADC _{standard}	0.766 (0.604–0.928)	0.945	0.57	0.92
Pre-ADC _{10th}	0.766 (0.612–0.920)	0.515	0.61	0.92
Pre-ADC _{25th}	0.679 (0.502–0.856)	0.565	0.48	0.85
Pre-ADC _{50th}	0.791 (0.646–0.935)	0.625	0.52	1.00
Pre-D _{10th}	0.761 (0.606–0.916)	0.655	0.61	0.85
Pre-D _{25th}	0.788 (0.641–0.934)	0.785	0.48	1.00
Pre-D _{50th}	0.814 (0.677–0.952)	0.875	0.70	0.92
Pre-K _{50th}	0.737 (0.569–0.906)	1.035	0.54	0.91
Residual vs nonresidual				
Pre-ADC _{10th}	0.789 (0.637–0.940)	0.515	0.72	0.89
Pre-K _{90th}	0.772 (0.617–0.926)	1.190	0.83	0.67
Post-ADC _{50th}	0.790 (0.632–0.947)	0.725	0.89	0.61
Post-K _{75th}	0.809 (0.655–0.962)	0.850	0.83	0.72
Post-K _{90th}	0.829 (0.680–0.977)	1.035	0.78	0.72
$\Delta \text{ADC}_{50th}\%$	0.833 (0.684–0.982)	0.253	0.94	0.72

Note:—ROC indicates receiver operating characteristic; AUC, area under the curve.

^aThe unit of cutoff value of ADC and D values is ($\times 10^{-3} \text{mm}^2/\text{s}$). The cutoff value of K is without a unit.

On-line Table 4: Parameters before and after NAC for prediction of radiotherapy response

Parameters	Residual Group	Nonresidual Group	P Value
No.	18	18	
Pre-ADC _{standard} ($\times 10^{-3} \text{mm}^2/\text{s}$)	0.89 \pm 0.11	0.93 \pm 0.16	.397
Post-ADC _{standard} ($\times 10^{-3} \text{mm}^2/\text{s}$)	1.12 \pm 0.12	1.12 \pm 0.19	.959
Pre-ADC _{10th} ($\times 10^{-3} \text{mm}^2/\text{s}$)	0.46 \pm 0.06	0.53 \pm 0.06	.002
Pre-K _{90th}	1.31 \pm 0.13	1.17 \pm 0.14	.004
Post-ADC _{50th} ($\times 10^{-3} \text{mm}^2/\text{s}$)	0.73 \pm 0.20	0.92 \pm 0.16	.004
Post-K _{75th}	1.02 \pm 0.22	0.79 \pm 0.14	.001
Post-K _{90th}	1.15 \pm 0.22	0.90 \pm 0.21	.001
$\Delta \text{ADC}_{50th}\%$	0.26 \pm 0.21	0.45 \pm 0.15	.005