

**Supplementary Table S1.** Patient and tumor characteristics

Patient No.	Age (yr)/sex	I-score			Primary cancer	Stage	CTV (mL)	BED10	P1M response	Progression-free survival (mo)
		Pre	P1W	P1M						
P1	72/M	8.56	7.61	4.79	Lung cancer	rT1cN2M0	178.7	80.52	PR	18.9
P2	54/M	4.48	4.76	4.43	Esophageal cancer	cT3N1M0	242.1	52.25	PD	12.6
P3	64/M	4.74	4.37	4.77	Lung cancer	rTxN2M0	38.1	64.42	PR	15.4
P4	46/M	5.30	4.75	4.52	Lung cancer	rTxN3M0	53.3	80.52	PR	18.6
P5	64/M	10.37	4.79	4.79	Tongue base cancer	cT3N1M0	208.2	83.33	PR	15.9
P6	71/M	5.25	5.60	4.68	Lung cancer	rTxN3M0	18.8	78.00	PR	16.5
P7	68//M	5.78	5.60	4.12	Esophageal cancer	cT2N2M0	205.4	52.25	PR	17.5
P8	65/M	5.25	5.33	5.03	Lung cancer	rTxN2M0	126.3	80.52	PR	17.0
P9	61/M	10.35	10.42	4.80	Tonsillar cancer	cT4N2M0	585.5	80.52	PR	12.6
P10	63/M	4.82	4.75	5.01	Lung cancer	M1	102	62.50	SD	14.2
P11	56/M	6.93	9.15	4.76	Esophageal cancer	cT3N1M0	261.7	24.00	PR	5.3
P12	63/M	5.20	5.16	5.24	Tonsillar cancer	cT4N2M0	390.2	83.45	CR	13.8
P13	52/M	4.94	-	4.50	Lung cancer	M1	175.2	57.60	SD	14.4
P14	53/M	5.99	4.69	4.50	Lung cancer	rTxN3M0	300.2	80.52	PR	11.0
P15	63/M	4.87	5.13	4.89	Lung cancer	rTxN2M0	36.9	80.52	SD	10.0
P16	65/M	5.77	4.89	5.91	Lung cancer	TxN3M0	30.5	80.52	PD	11.6
P17	56/M	5.73	4.62	4.72	Tonsillar cancer	cT4N1M0	236.5	84.82	PR	11.4
P18	67/M	5.23	5.17	4.93	Parotid gland cancer	rT2N0M1	32.6	84.82	PR	8.4
P19	50/M	5.01	5.09	5.41	Esophageal cancer	cT3N1M0	176.5	52.80	PR	7.8
P20	59/M	5.27	4.90	5.40	Esophageal cancer	cT3N1M0	332.3	52.80	CR	5.6
P21	57/M	5.63	-	5.05	Parotid gland cancer	M1	14.5/223.2	38.40	SD	4.9
P22	74/F	10.96	10.89	10.20	Lung cancer	M1	121.2	58.50	PD	8.1
P23	61/F	4.81	5.40	4.30	Lung cancer	M1	28.5	58.50	SD	5.3

P1W, post-radiotherapy 1 week; P1M, post-radiotherapy 1 month; CTV, clinical target volume; BED10, biologically effective dose with  $\alpha/\beta = 10$  Gy; CR, complete response; PR, partial response; SD, stable disease; PD, progressive disease.