

**Table SI. The change in initial and post treatment serum CEA levels in patients**

Case no.	Age (years)	Sex	Metastases	Chemotherapy	Treatment period	Response to treatment	Change in CEA (ng/ml)
1	73	M	Multiple bone Multiple bone	1 <sup>st</sup> line; 5-FU + CDDP	3 months	PD	36.6 → 114.8
				2 <sup>nd</sup> line; DTX	2 months	PD	114.8 → 333.7
2	79	F	Multiple LNs	1 <sup>st</sup> line; PTX	14 months	PD	142.2 → 203.3
3	67	F	Left inguinal LN Multiple LNs, left lung	1 <sup>st</sup> line; DTX	2 months	SD	7.3 → 3.7
				2 <sup>nd</sup> line; 5-FU + CDDP	10 months	PD	3.7 → 31.0
4	63	M	Multiple LNs, lung, and liver Multiple LNs, lung, liver, bones and brain	1 <sup>st</sup> line; MMC + CPT11	10 months	PD	1.6 → 18.9
				2 <sup>nd</sup> line; TS-1	2 months	PR	18.9 → 4.5
				2 <sup>nd</sup> line; TS-1	3 months	PD	4.5 → 26.8
5	78	M	Multiple LNs, lung and liver	1 <sup>st</sup> line; DTX	11 months	PD	2.5 → 230.0
6	67	M	Para-aortic LN Multiple LNs and bones	1 <sup>st</sup> line; PTX	11 months	PD	5.7 → 13.4
				2 <sup>nd</sup> line; DTX	2 months	PD	13.4 → 35.3
				3 <sup>rd</sup> line; PTX	4 months	PD	35.3 → 66.2
7	70	M	Multiple brain and LNs Multiple brain and LNs	1 <sup>st</sup> line; PTX	5 months	PR	3117.0 → 29.2
				1 <sup>st</sup> line; PTX	4 months	PD	29.2 → 53.2
				2 <sup>nd</sup> line; EPI + MMC + VCR	2 months	PD	53.2 → 634.8
8	73	F	Multiple liver Multiple liver	1 <sup>st</sup> line; DTX	4 months	PD	11.8 → 88.6
				2 <sup>nd</sup> line; HER + DTX	7 months	PR	88.6 → 1.9
				2 <sup>nd</sup> line; HER + DTX	9 months	PD	1.9 → 27.4
9	63	M	Multiple LNs	1 <sup>st</sup> line; HER+ DTX	3 months	PD	4.3 → 9.7

LN: lymph node; 5-FU: Fluorouracil; CDDP: Cisplatin; DTX: Docetaxel; PTX: Paclitaxel; MMC: Mitomycin C; CPT11: Irinotecan; TS-1: Tegafur/Gimeracil/Oteracil; EPI: Epirubicin; VCR: Vincristine; HER: Trastuzumab; PD: progressive disease; SD: stable disease; PR: partial response.