

Table S1. Baseline clinical characteristics of the enrolled patients with stage II-III CRC

Parameters	Values
Age (yrs.)	63.00 (56.00-72.25)
Gender (Male/Female)	76/54
Tumor location (Rectum/Colon)	47/83
T stage (T1-2/T3-4)	20/110
N stage (N0/N1-2)	77/53
TNM stage (II/III)	75/55
Tumor differentiation (Poor/Moderate or well)	12/116
Preoperative CA125 (U/ml)	3.325 (1.738-9.245)
Preoperative CA19-9 (U/ml)	9.500 (7.000-15.850)
Preoperative CA72-4 (U/ml)	9.355 (4.273-21.415)
Preoperative CEA (ng/ml)	2.200 (1.240-4.420)
Preoperative CTCs (number)	2.000 (1.000-4.000)
Postoperative CA125 (U/ml)	8.930 (6.340-15.280)
Postoperative CA19-9 (U/ml)	6.820 (2.698-15.118)
Postoperative CA72-4 (U/ml)	1.540 (0.958-3.433)
Postoperative CEA (ng/ml)	2.250 (1.383-3.363)
Postoperative CTCs (number)	4.000 (1.000-7.000)

Abbreviations: CRC, colorectal cancer; CTCs, circulating tumor cells; CEA, carcinoembryonic antigen; CA125, carbohydrate antigen 125; CA19-9, carbohydrate antigen 19-9; CA72-4, carbohydrate antigen 72-4.

Table S2. Associations of preoperative CA72-4 with basal characteristics, pre- and postoperative tumor biomarkers, and tumor recurrence in stage II-III CRC

Parameters	Subgroups	Preoperative CA72-4		χ^2	P-value
		Negative	Positive		
Gender	Male	68	6	0.373	0.542
	Female	47	6		
Age	≤62 yrs	52	8	NA	0.225
	>62 yrs	63	4		
Tumor location	Rectum	41	6	0.960	0.327
	Colon	74	6		
T stage	T1-2	16	4	NA	0.096
	T3-4	99	8		
N stage	N0	68	6	0.373	0.542
	N1-2	47	6		
TNM stage	II	67	6	0.303	0.582
	III	48	6		
Tumor differentiation	Poor	11	1	NA	1.000
	Moderate/well	104	11		
Preoperative CA125	Negative	89	9	NA	0.728
	Positive	25	3		
Preoperative CA19-9	Negative	102	10	NA	0.634
	Positive	13	2		
Preoperative CEA	Negative	82	7	0.872	0.350
	Positive	33	5		
Preoperative CTCs	Negative	58	8	NA	0.369

	Positive	57	4		
Postoperative CA125	Negative	64	8	NA	0.721
	Positive	26	2		
Postoperative CA19-9	Negative	104	10	NA	0.354
	Positive	11	2		
Postoperative CA72-4	Negative	108	8	NA	0.011
	Positive	7	4		
Postoperative CEA	Negative	106	9	NA	0.087
	Positive	9	3		
Postoperative CTCs	Negative	56	6	0.007	0.931
	Positive	59	6		
Tumor recurrence	No recurrence	90	9	NA	0.393
	Recurrence	15	3		

Abbreviations: CRC, colorectal cancer; CTCs, circulating tumor cells; CEA, carcinoembryonic antigen; CA125, carbohydrate antigen 125; CA19-9, carbohydrate antigen 19-9; CA72-4, carbohydrate antigen 72-4.

Note: NA, not applicable and indicated the association was determined by Fisher's exact test. Bold, indicates the association was significant; Italic, indicates a trend of association ($0.05 \leq P < 0.1$).

Table S3. Associations of postoperative CA72-4 with basal characteristics, pre- and postoperative tumor biomarkers, and tumor recurrence in stage II-III CRC

Parameters	Subgroups	Postoperative CA72-4		χ^2	P-value
		Negative	Positive		
Gender	Male	70	6	0.076	0.783
	Female	49	5		
Age	≤62 yrs	55	6	0.280	0.596
	>62 yrs	64	5		
Tumor location	Rectum	42	5	0.450	0.502
	Colon	77	6		
T stage	T1-2	16	4	NA	0.066
	T3-4	103	7		
N stage	N0	72	5	0.944	0.331
	N1-2	47	6		
TNM stage	II	69	6	0.049	0.825
	III	50	5		
Tumor differentiation	Poor	11	1	NA	1.000
	Moderate/well	106	10		
Preoperative CA125	Negative	93	7	1.330	0.249
	Positive	25	4		
Preoperative CA19-9	Negative	106	9	NA	0.615
	Positive	13	2		
Preoperative CA72-4	Negative	108	7	NA	0.011
	Positive	8	4		

Preoperative CEA	Negative	82	8	NA	0.546
	Positive	37	3		
Preoperative CTCs	Negative	58	8	NA	0.207
	Positive	61	3		
Postoperative CA125	Negative	67	5	4.320	0.038
	Positive	22	6		
Postoperative CA19-9	Negative	108	9	0.894	0.344
	Positive	11	2		
Postoperative CEA	Negative	110	8	4.669	0.031
	Positive	9	3		
Postoperative CTCs	Negative	60	3	2.160	0.142
	Positive	59	8		
Tumor recurrence	No recurrence	97	5	14.854	<0.001
	Recurrence	12	6		

Abbreviations: CRC, colorectal cancer; CTCs, circulating tumor cells; CEA, carcinoembryonic antigen; CA125, carbohydrate antigen 125; CA19-9, carbohydrate antigen 19-9; CA72-4, carbohydrate antigen 72-4.

Note: NA, not applicable and indicated the association was determined by Fisher's exact test. Bold, indicates the association was significant; Italic, indicates a trend of association ($0.05 \leq P < 0.1$).