

Table S1 Univariate and multivariate analysis of stage II colon cancer patients

Characteristic	Univariate analysis			Multivariate analysis		
	HR	95% CI	P	HR	95% CI	P
MMR status						
pMMR						
dMMR	0.250	0.117–0.535	<0.001	0.333	0.153–0.725	0.006
Gender						
Female						
Male	0.833	0.598–1.160	0.279			
Age (year)						
<50						
≥50	1.283	0.857–1.922	0.226			
Grade of differentiation						
Well or moderately						
Poorly	0.844	0.502–1.421	0.524	1.141	0.669–1.945	0.628
Mucus component						
Negative						
Positive	0.670	0.341–1.316	0.245			
T4						
Negative						
Positive	2.223	1.504–3.286	<0.001	1.609	1.045–2.477	0.031
Vascular invasion						
Negative						
Positive	1.663	0.874–3.163	0.121	1.166	0.602–2.257	0.649
Perineural invasion						
Negative						
Positive	4.011	2.779–5.791	<0.001	3.154	2.122–4.688	<0.001
No. of lymph nodes excised						
≥12						
<12	2.410	1.501–3.869	<0.001	1.997	1.235–3.230	0.005
HER2						
Negative						
Positive	2.081	0.918–4.715	0.079	2.100	0.918–4.807	0.079
Adjuvant chemotherapy						
Negative						
Positive	1.524	1.095–2.121	0.013	1.207	0.850–1.713	0.292
KRAS mutation						
Negative						
Positive	1.479	0.980–2.232	0.063	1.504	0.986–2.294	0.058
Unknown	1.016	0.685–1.508	0.936	0.951	0.627–1.443	0.815

KRAS, Kirsten rat sarcoma viral oncogene homolog; HR, hazard ratio; MMR, mismatch repair; pMMR, proficient MMR; dMMR, deficient MMR; HER2, human epidermal growth factor receptor 2; CI, confidence interval.

Table S2 Basic characteristics of stage II colon cancer patients with KRAS gene testing

Characteristic	Total population, n=836, No. (%)	pMMR group, n=693, No. (%)	dMMR group, n=143, No. (%)	P value
Age (year)				<0.001
<50	191 (22.8)	131 (18.9)	60 (42.0)	
≥50	645 (77.2)	562 (81.1)	83 (58.0)	
Gender				0.795
Female	331 (39.6)	273 (39.4)	58 (40.6)	
Male	505 (60.4)	420 (60.6)	85 (59.4)	
Grade of differentiation				<0.001
Well or moderately	721 (86.2)	624 (90.0)	97 (67.8)	
Poorly	115 (13.8)	69 (10.0)	46 (32.2)	
Mucus component				<0.001
Negative	765 (91.5)	648 (93.5)	117 (81.8)	
Positive	71 (8.5)	45 (6.5)	26 (18.2)	
T4				0.109
Negative	767 (91.7)	631 (91.1)	136 (95.1)	
Positive	69 (8.3)	62 (8.9)	7 (4.9)	
Vascular invasion				0.428
Negative	796 (95.2)	658 (94.9)	138 (96.5)	
Positive	40 (4.8)	35 (5.1)	5 (3.5)	
Perineural invasion				<0.001
Negative	751 (89.8)	609 (87.9)	142 (99.3)	
Positive	85 (10.2)	84 (12.1)	1 (0.7)	
No. of lymph nodes excised				0.050
≥12	782 (93.5)	643 (92.8)	139 (97.2)	
<12	54 (6.5)	50 (7.2)	4 (2.8)	
HER2				0.318
Negative	822 (98.3)	680 (98.1)	142 (99.3)	
Positive	14 (1.7)	13 (1.9)	1 (0.7)	
Adjuvant chemotherapy				0.035
Negative	504 (60.3)	429 (61.9)	75 (52.4)	
Positive	332 (39.7)	264 (38.1)	68 (47.6)	
KRAS mutation				0.087
Negative	514 (61.5)	417 (60.2)	97 (67.8)	
Positive	322 (38.5)	276 (39.8)	46 (32.2)	

KRAS, Kirsten rat sarcoma viral oncogene homolog; pMMR, proficient mismatch repair; dMMR, deficient MMR; HER2, human epidermal growth factor receptor 2.

Table S3 Multivariate logistic regression analysis predicting patients with dMMR status in stage II colon cancer patients with KRAS gene testing

Characteristic	HR	95% CI	P
Age (year)			
<50			
≥50	0.308	0.204-0.463	<0.001
Grade of differentiation			
Well or moderately			
Poorly	5.530	2.812-10.875	<0.001
Mucus component			
Negative			
Positive	0.587	0.313-1.080	0.199
Perineural invasion			
Negative			
Positive	0.041	0.005-0.302	0.002
Adjuvant chemotherapy			
Negative			
Positive	1.443	0.903-1.687	0.068

dMMR, deficient mismatch repair; KRAS, Kirsten rat sarcoma viral oncogene homolog; HR, hazard ratio; CI, confidence interval.

Table S4 Univariate and multivariate analysis of stage II colon cancer patients with KRAS gene testing

Characteristic	Univariate analysis			Multivariate analysis		
	HR	95% CI	P	HR	95% CI	P
MMR status						
pMMR						
dMMR	0.104	0.026-0.423	0.002	0.152	0.037-0.626	0.009
Gender						
Female						
Male	0.966	0.637-1.465	0.871			
Age (year)						
<50						
≥50	1.380	0.840-2.269	0.204			
Grade of differentiation						
Well or moderately						
Poorly	0.625	0.302-1.291	0.204			
Mucus component						
Negative						
Positive	1.662	0.935-2.956	0.084			
T4						
Negative						
Positive	5.263	3.288-8.424	<0.001	3.561	2.146-5.910	<0.001
Vascular invasion						
Negative						
Positive	1.813	0.877-3.748	0.108			
Perineural invasion						
Negative						
Positive	4.098	2.621-6.406	<0.001	2.671	1.653-4.316	<0.001
No. of lymph nodes excised						
≥12						
<12	2.290	1.247-4.205	0.008	2.274	1.236-4.183	0.008
HER2						
Negative						
Positive	1.003	0.247-4.077	0.996			
Adjuvant chemotherapy						
Negative						
Positive	1.828	1.203-2.778	0.005	1.210	0.762-1.923	0.419
KRAS mutation						
Negative						
Positive	1.483	0.983-2.239	0.061			

KRAS, Kirsten rat sarcoma viral oncogene homolog; HR, hazard ratio; MMR, mismatch repair; pMMR, proficient MMR; dMMR, deficient MMR; HER2, human epidermal growth factor receptor 2; CI, confidence interval.