

Supplemental Table 1 The screening of possible confounding factors by the univariate cox analysis in the training set

Variables	β	S. E	χ^2	HR (95%CI)	P
Gender					
Female				Ref	
Male	0.059	0.108	0.296	1.06 (0.86-1.31)	0.586
Age	0.037	0.005	69.038	1.04 (1.03-1.05)	<0.001
Race					
Black				Ref	
White	-0.035	0.152	0.053	0.97 (0.72-1.30)	0.818
Other #	-0.463	0.255	3.291	0.63 (0.38-1.04)	0.070
Marital status					
Divorce				Ref	
Married	-0.338	0.161	4.420	0.71 (0.52-0.98)	0.036
Single	-0.444	0.203	4.808	0.64 (0.43-0.95)	0.028
Others *	0.194	0.177	1.212	1.21 (0.86-1.72)	0.271
Primary tumor site					
Left				Ref	
Rectum	-0.164	0.152	1.159	0.85 (0.63-1.14)	0.282
Right	0.585	0.153	14.708	1.80 (1.33-2.42)	<0.001
Overlapping lesion of colon/Colon/ Unknown	0.666	0.360	3.424	1.95 (0.96-3.94)	0.064
G staging					
I				Ref	
II	0.667	0.218	9.376	1.95 (1.27-2.99)	0.002
III	1.768	0.169	109.557	5.86 (4.21-8.16)	<0.001
IV	1.792	0.193	85.849	6.00 (4.11-8.76)	<0.001
Unknown	0.715	0.221	10.484	2.05 (1.33-3.15)	0.001
T staging					

Variables	β	S. E	χ^2	HR (95%CI)	P
T1				Ref	
T2	0.236	0.280	0.711	1.27 (0.73-2.19)	0.399
T3	0.804	0.213	14.229	2.24 (1.47-3.39)	<0.001
T4	1.304	0.222	34.453	3.68 (2.38-5.69)	<0.001
TX	-10.300	324.58	0.001	-	0.975
M staging					
M0				Ref	
M1	1.121	0.110	104.836	3.07 (2.48-3.80)	<0.001
Tumor size					
<5 cm				Ref	
\geq 5 cm	1.005	0.109	85.294	2.73 (2.21-3.38)	<0.001
Perineural invasion					
No				Ref	
Yes	0.785	0.313	6.303	2.19 (1.19-4.04)	0.012
Unknown	-0.443	0.205	4.669	0.64 (0.43-0.96)	0.031
CEA					
Negative				Ref	
Positive	0.880	0.386	5.206	2.41 (1.13-5.14)	0.023
Unknown	-0.474	0.274	2.986	0.62 (0.36-1.07)	0.084
Chemotherapy					
No/Unknown				Ref	
Yes	0.470	0.113	17.245	1.60 (1.28-2.00)	<0.001
Radiation					
No/Unknown				Ref	
Yes	0.054	0.237	0.053	1.06 (0.66-1.68)	0.819

Others #, American Indian/AK Native, Asian/Pacific Islander and Unknown;
Others *, Separated, Unknown, Unmarried or Domestic Partner and Widowed;
G, grade; T, tumor; N, node; M, metastasis; CEA, carcinoembryonic antigen;

HR, hazard ratio; CI, confidence interval.