

Table S1. Ki67 and clinical characteristics.

Variables	Ki67 in P		P -value	Ki67 in M		P -value
	Low n (%)	High n (%)		Low n (%)	High n (%)	
Sex						
Male	20 (64.5)	16 (64.0)	0.968	22 (62.9)	14 (66.7)	0.773
Female	11 (35.5)	9 (36.0)		13 (37.1)	7 (33.3)	
Age, years						
≤55	11 (35.5)	11 (44.0)	0.517	14 (40.0)	8 (38.1)	0.888
>55	20 (64.5)	14 (56.0)		21 (60.0)	13 (61.9)	
Primary tumor						
Rectum	18 (58.1)	12 (48.0)	0.453	20 (57.1)	10 (47.6)	0.489
Colon	13 (41.9)	13 (52.0)		15 (42.9)	11 (52.4)	
Pathological type						
Adenocarcinoma	24 (77.4)	21 (84.0)	0.737	28 (80.0)	17 (81.0)	1.000
Mucinous adenocarcinoma	7 (22.6)	4 (16.0)		7 (20.0)	4 (19.0)	
Differentiation						
Low	9 (29.1)	8 (32.0)	0.810	10 (28.6)	7 (33.3)	0.708
Moderate	22 (71.0)	17 (68.0)		25 (71.4)	14 (66.7)	
T stage						
T1-3	15 (48.4)	18 (72.0)	0.074	21 (60.0)	12 (57.1)	0.833
T4	16 (51.6)	7 (28.0)		14 (40.0)	9 (42.9)	
N stage						
N0	9 (29.0)	10 (40.0)	0.389	10(28.6)	9 (42.9)	0.274
N1-2	22 (71.0)	15 (60.0)		25(71.4)	12 (57.1)	
Time of liver metastasis						
Synchronous	25 (80.6)	21 (84.0)	1.000	30 (85.7)	16 (76.2)	0.476
Metachronous	6 (19.4)	4 (16.0)		5 (14.3)	5 (23.8)	
N of liver metastasis						
One	8 (25.8)	8 (32.0)	0.610	12 (34.3)	4 (19.0)	0.222
Multiple	23 (74.2)	17 (68.0)		23 (65.7)	17 (81.0)	
Maximum diameter of liver metastases, cm						
<5	23 (74.2)	22 (88.0)	0.312	29 (82.9)	16 (76.2)	0.730
≥5	8 (25.8)	3 (12.0)		6 (17.1)	5 (23.8)	

Table SII. CD44 and clinical characteristics.

Variables	CD44 in P		P -value	CD44 in M		P -value
	Low n (%)	High n (%)		Low n (%)	High n (%)	
Sex						
Male	30 (63.8)	6 (66.7)	1.000	30 (63.8)	6 (66.7)	1.000
Female	17 (36.2)	3 (33.3)		17 (36.2)	3 (33.3)	
Age, years						
≤55	21(44.7)	1 (11.1)	0.074	21(44.7)	1 (11.1)	0.074
>55	26 (55.3)	8 (88.9)		26 (55.3)	8 (88.9)	
Primary tumor						
Rectum	26 (55.3)	4 (44.4)	0.719	26 (55.3)	4 (44.4)	0.719
Colon	21 (44.7)	5 (55.6)		21 (44.7)	5 (55.6)	
Pathological type						
Adenocarcinoma	39 (83.0)	6 (66.7)	0.358	39 (83.0)	6 (66.7)	0.358
Mucinous adenocarcinoma	8 (17.0)	3 (33.3)		8 (17.0)	3 (33.3)	
Differentiation						
Low	12 (25.5)	5 (55.6)	0.112	13 (27.7)	4 (44.4)	0.431
Moderate	35 (74.5)	4 (44.4)		34 (72.3)	5 (55.6)	
T stage						
T1-3	29 (61.7)	4 (44.4)	0.464	29 (61.7)	4 (44.4)	0.464
T4	18 (38.3)	5 (55.6)		18 (38.3)	5 (55.6)	
N stage						
N0	18 (38.3)	1 (11.1)	0.146	17 (36.2)	2 (22.2)	0.703
N1-2	29 (61.7)	8 (88.9)		30 (63.8)	7 (77.8)	
Time of liver metastasis						
Synchronous	37 (78.7)	9 (100.0)	0.189	39 (83.0)	7 (77.8)	0.656
Metachronous	10 (21.3)	0 (0.0)		8 (17.0)	2 (22.2)	
N of liver metastasis						
One	13 (27.7)	3 (33.3)	0.705	14 (29.8)	2 (22.2)	1.000
Multiple	34 (72.3)	6 (66.7)		33 (70.2)	7 (77.8)	
Maximum diameter of liver metastases, cm						
<5	37 (78.7)	8 (88.9)	0.671	37 (78.7)	8 (88.9)	0.671
≥5	10 (21.3)	1 (11.1)		10 (21.3)	1 (11.1)	

Table SIII. CD133 and clinical characteristics.

Variables	CD133 in P		P -value	CD133 in M		P -value
	Low n (%)	High n (%)		Low n (%)	High n (%)	
Sex						
Male	14 (56.0)	22 (71.0)	0.245	20 (62.5)	16 (66.7)	0.747
Female	11 (44.0)	9 (29.0)		12 (37.5)	8 (33.3)	
Age, years						
≤55	7 (28.0)	15 (48.4)	0.120	18 (56.2)	4 (16.7)	0.003
>55	18 (72.0)	16 (51.6)		14 (43.8)	20 (83.3)	
Primary tumor						
Rectum	18 (72.0)	12 (38.7)	0.013	17 (53.1)	13 (54.2)	0.938
Colon	7 (28.0)	19 (61.3)		15 (46.9)	11 (45.8)	
Pathological type						
Adenocarcinoma	22 (88.0)	23 (74.2)	0.312	27 (84.4)	18 (75.0)	0.501
Mucinous adenocarcinoma	3 (12.0)	8 (25.8)		5 (15.6)	6 (25.0)	
Differentiation						
Low	8 (32.0)	9 (29.0)	0.810	9 (28.1)	8 (33.3)	0.675
Moderate	17 (68.0)	22 (71.0)		23 (71.9)	16 (66.7)	
T stage						
T1-3	16 (64.0)	17 (54.8)	0.488	19 (59.4)	14 (58.3)	0.938
T4	9 (36.0)	14 (45.2)		13 (40.6)	10 (41.7)	
N stage						
N0	8 (32.0)	11 (35.5)	0.784	15 (46.9)	4 (16.7)	0.018
N1-2	17 (68.0)	20 (64.5)		17 (53.1)	20 (83.3)	
Time of liver metastasis						
Synchronous	23 (92.0)	23 (74.2)	0.159	26 (81.2)	20 (83.3)	1.000
Metachronous	2 (8.0)	8 (25.8)		6 (18.8)	4 (16.7)	
N of liver metastasis						
One	7 (28.0)	9 (29.0)	0.932	11 (34.4)	5 (20.8)	0.267
Multiple	18 (72.0)	22 (71.0)		21 (65.6)	19 (79.2)	
Maximum diameter of liver metastases, cm						
<5	21 (84.0)	24 (77.4)	0.737	24 (75.0)	21 (87.5)	0.319
≥5	4 (16.0)	7 (22.6)		8 (25.0)	3 (12.5)	

Table SIV. Snail and clinical characteristics.

Variables	Snail in P		P -value	Snail in M		P -value
	Low n (%)	High n (%)		Low n (%)	High n (%)	
Sex						
Male	12 (63.2)	24 (64.9)	0.900	13 (54.2)	23 (71.9)	0.171
Female	7 (36.8)	13 (35.1)		11 (45.8)	9 (28.1)	
Age, years						
≤55	5 (26.3)	17 (45.9)	0.154	9 (37.5)	13 (40.6)	0.813
>55	14 (73.7)	20 (54.4)		15 (62.5)	19 (59.4)	
Primary tumor						
Rectum	12 (63.2)	18 (48.6)	0.303	15 (62.5)	15 (46.9)	0.246
Colon	7 (36.8)	19 (51.4)		9 (37.5)	17 (53.1)	
Pathological type						
Adenocarcinoma	16 (84.2)	29 (78.4)	0.732	18 (75.0)	27 (84.4)	0.501
Mucinous adenocarcinoma	3 (15.8)	8 (21.6)		6 (25.0)	5 (15.6)	
Differentiation						
Low	7 (36.8)	10 (27.0)	0.449	3 (12.5)	14 (43.8)	0.012
Moderate	12 (63.2)	27 (73.0)		21 (87.5)	18 (56.2)	
T stage						
T1-3	12 (63.2)	21 (56.8)	0.645	13 (54.2)	20 (62.5)	0.530
T4	7 (36.8)	16 (43.2)		11 (45.8)	12 (37.5)	
N stage						
N0	7 (36.8)	12 (32.4)	0.741	7 (29.2)	12 (37.5)	0.515
N1-2	12 (63.2)	25 (67.6)		17 (70.8)	20 (62.5)	
Time of liver metastasis						
Synchronous	18 (94.7)	28 (75.7)	0.139	22 (91.7)	24 (75.0)	0.162
Metachronous	1 (5.3)	9 (24.3)		2 (8.3)	8 (25.0)	
N of liver metastasis						
One	5 (26.3)	11 (29.7)	0.789	5 (20.8)	11 (34.4)	0.267
Multiple	14 (73.7)	26 (70.3)		19 (79.2)	21 (65.6)	
Maximum diameter of liver metastases, cm						
<5	15 (78.9)	30 (81.1)	1.000	20 (83.3)	25 (78.1)	0.741
≥5	4 (21.1)	7 (18.9)		4 (16.7)	7 (21.9)	

Table SV. E-cadherin and clinical characteristics.

Variables	E-cadherin in P		P -value	E-cadherin in M		P -value
	Low n (%)	High n (%)		Low n (%)	High n (%)	
Sex						
Male	18 (62.1)	18 (66.7)	0.720	21 (72.4)	15 (55.6)	0.188
Female	11 (37.9)	9 (33.3)		8 (27.6)	12 (44.4)	
Age, years						
≤55	12 (41.4)	10 (37.0)	0.740	13 (44.8)	9 (33.3)	0.379
>55	17 (58.6)	17 (63.0)		16 (55.2)	18 (66.7)	
Primary tumor						
Rectum	16 (55.2)	14 (51.9)	0.803	16 (55.2)	14 (51.9)	0.803
Colon	13 (44.8)	13 (48.1)		13 (44.8)	13 (48.1)	
Pathological type						
Adenocarcinoma	25 (86.2)	20 (74.1)	0.253	26 (89.7)	19 (70.4)	0.070
Mucinous adenocarcinoma	4 (13.8)	7 (25.9)		3 (10.3)	8 (29.6)	
Differentiation						
Low	8 (27.6)	9 (33.3)	0.640	10 (34.5)	7 (25.9)	0.487
Moderate	21 (72.4)	18 (66.7)		19 (65.5)	20 (74.1)	
T stage						
T1-3	20 (69.0)	13 (48.1)	0.114	18 (62.1)	15 (55.6)	0.621
T4	9 (31.0)	14 (51.9)		11 (37.9)	12 (44.4)	
N stage						
N0	8 (27.6)	11 (40.7)	0.299	9 (31.0)	10 (37.0)	0.635
N1-2	21 (72.4)	16 (59.3)		20 (69.0)	17 (63.0)	
Time of liver metastasis						
Synchronous	24 (82.8)	22 (81.5)	1.000	25 (86.2)	21 (77.8)	0.497
Metachronous	5 (17.2)	5 (18.5)		4 (13.8)	6 (22.2)	
N of liver metastasis						
One	8 (27.6)	8 (29.6)	0.866	12 (41.4)	4 (14.8)	0.028
Multiple	21 (72.4)	19 (70.4)		17 (58.6)	23 (85.2)	
Maximum diameter of liver metastases, cm						
<5	21 (72.4)	24 (88.9)	0.121	24 (82.8)	21 (77.8)	0.639
≥5	8 (27.6)	3 (11.1)		5 (17.2)	6 (22.2)	

Table SVI. β -catenin and clinical characteristics.

Variables	β -catenin in P		P -value	β -catenin in M		P -value
	Low n (%)	High n (%)		Low n (%)	High n (%)	
Sex						
Male	10 (76.9)	26 (60.5)	0.339	6 (46.2)	30 (69.8)	0.119
Female	3 (23.1)	17 (39.5)		7 (53.8)	13 (30.2)	
Age, years						
≤ 55	3 (23.1)	19 (44.2)	0.172	7 (53.8)	15 (34.9)	0.220
>55	10 (76.9)	24 (55.8)		6 (46.2)	28 (65.1)	
Primary tumor						
Rectum	5 (38.5)	25 (58.1)	0.213	8 (61.5)	22 (51.2)	0.511
Colon	8 (61.5)	18 (41.9)		5 (38.5)	21 (48.8)	
Pathological type						
Adenocarcinoma	9 (69.2)	36 (83.7)	0.259	8 (61.5)	37 (86.0)	0.104
Mucinous adenocarcinoma	4 (30.8)	7 (16.3)		5 (38.5)	6 (14.0)	
Differentiation						
Low	4 (30.8)	13 (30.2)	1.000	3 (23.1)	14 (32.6)	0.733
Moderate	9 (69.2)	30 (69.8)		10 (76.9)	29 (67.4)	
T stage						
T1-3	9 (69.2)	24 (55.8)	0.389	8 (61.5)	25(58.1)	0.827
T4	4 (30.8)	19 (44.2)		5 (38.5)	18(41.9)	
N stage						
N0	5 (38.5)	14 (32.6)	0.745	4 (30.8)	15 (34.9)	1.000
N1-2	8 (61.5)	29 (67.4)		9 (69.2)	28 (65.1)	
Time of liver metastasis						
Synchronous	9 (69.2)	37 (86.0)	0.218	9 (69.2)	37 (86.0)	0.218
Metachronous	4 (30.8)	6 (14.0)		4 (30.8)	6 (14.0)	
N of liver metastasis						
One	3 (23.1)	13 (30.2)	0.737	2 (15.4)	14 (32.6)	0.308
Multiple	10 (76.9)	30 (69.8)		11 (84.6)	29 (67.4)	
Maximum diameter of liver metastases, cm						
<5	11 (84.6)	34 (79.1)	1.000	10 (76.9)	35 (81.4)	0.705
≥ 5	2 (15.4)	9 (20.9)		3 (23.1)	8 (18.6)	