

Supplementary Table 1 Characteristics of the study population

Characteristics	Datum
Patient-related factors	
Gender(n)	
Male	1047(63.7%)
Female	596(36.3%)
Mean Age(years)	56.46
Tumor-related factors	
Tumor location	
Lower third	397 (24.2%)
Middle third	460 (28.0%)
Upper third	786 (47.8%)
Mean tumor size (cm)	5.26
Signet-ring cell carcinoma(n)	
yes	347(21.1%)
no	1296(78.9%)
TNM stage	
T	
1/2	444(27.0%)
3/4	1082(65.9%)
Unknown	117(7.1%)
N	
0/1	711(43.3%)
2/3	813 (49.5 %)
Unknown	119(7.2%)
M	
0	1330(80.9%)
1	313(19.1%)

BMI: body mass index

Supplementary Table 2 Clinicopathological characteristics of 1330 patients receiving radical gastrectomy and univariate analysis of associated factors for postoperative DRE (+)

	P-DRE (+)	P-DRE (-)	P value
Number of patients	38	1292	
Mean age (years)	50.05	56.98	<0.01
Gender(n)			0.01
Female	23	451	
Male	15	841	
Mean tumor size(cm)	6.03	4.61	<0.01
Tumor location (n)			0.32
Upper 1/3	8	335	
Middle 1/3	14	335	
Lower 1/3	16	622	
Signet-ring cell carcinoma(n)			0.20
No	33	1011	
Yes	5	281	
Ascites (n)			<0.01
No	29	1215	
Mild	8	76	
Moderate	1	1	
Massive	0	0	
Vessel invasion			0.20
No	20	813	
Yes	18	479	
Perineural invasion			0.03
No	11	606	
Yes	27	686	
Extracapsular extension			0.04
No	24	1003	
Yes	14	289	
Tumor marker			
Mean CEA(ng/ml)	37.55	7.51	<0.01
Mean CA199(ng/ml)	28.21	34.86	0.81
Mean CA724(ng/ml)	4.42	10.01	0.58
Mean BMI (kg/m ²)	21.67	21.77	0.85
Depth of tumor invasion			<0.01
T1	0	275	
T2	1	168	
T3	15	511	

T4a	19	293	
T4b	3	45	
Lymph node metastasis			0.03
N0	6	433	
N1	7	238	
N2	5	222	
N3a	10	238	
N3b	10	161	

DRE: digital rectal examination; BMI: body mass index; P-DRE: postoperative result of DRE.

Supplementary Table 3 Multivariable logistic regression analysis of associated factors for postoperative DRE (+)

Variable	OR	P value	95%CI
Higher age (yes vs no)	0.95	<0.01	0.93-0.97
Male vs Female	2.24	0.02	1.19-3.29
Higher tumor size (yes vs no)		0.10	
Ascites (ref:no)		<0.01	
Mild	2.40	0.05	0.98-3.82
Moderate	57.70	<0.01	4.56-110.8
Perineural invasion (yes vs no)		0.69	
Extracapsular extension (yes vs no)		0.97	
Higher CEA (yes vs no)	1.01	<0.01	1.001-1.019
T stage		0.07	
N stage		0.79	

DRE: digital rectal examination; OR: odds ratio; CI: confidence interval;