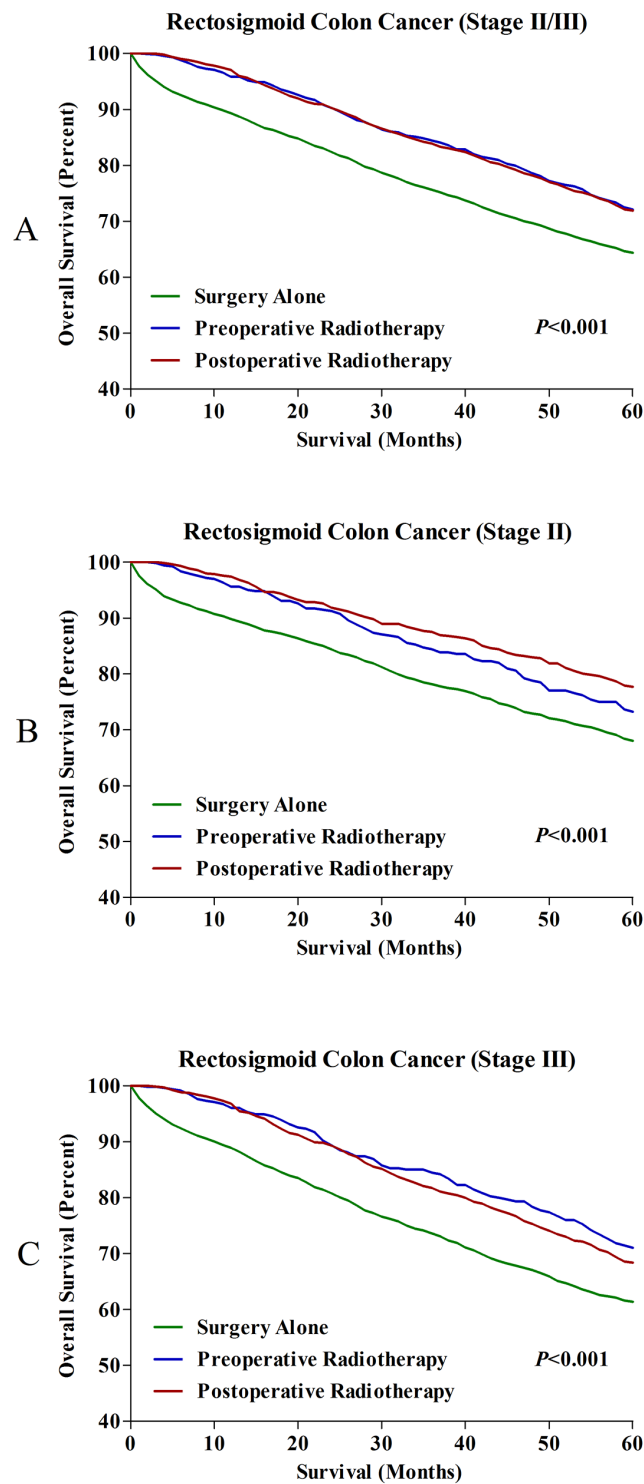
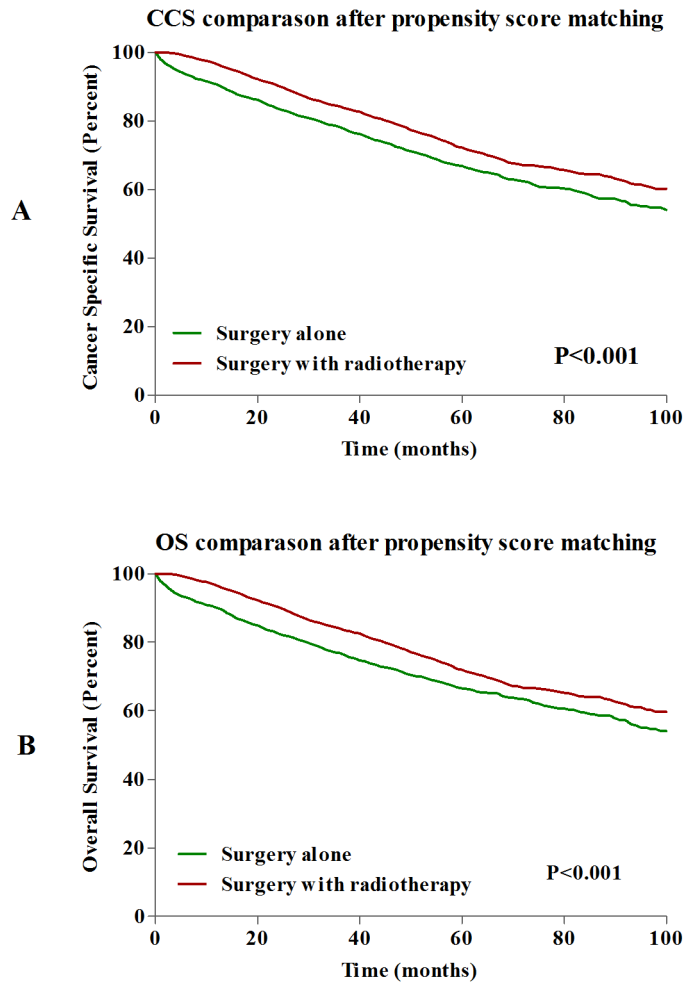


SUPPLEMENTARY FIGURES AND TABLE



Supplementary Figure S1: A. 5-year OSs in all RSC patients treated with surgery alone, pre- and postoperative radiotherapy. B. 5-year OSs in stage II RSC patients treated with surgery alone, pre- and postoperative radiotherapy. C. 5-year OSs in stage III RSC patients treated with surgery alone, pre- and postoperative radiotherapy.



Supplementary Figure S2: **A.** Comparisons of 5-year CSS after propensity score matching. **B.** Comparisons of 5-year OS after propensity score matching.

Supplementary Table S1: Characteristics among patients with or without radiotherapy before and after propensity score matching

Characteristics	Before matching		After matching		
	Surgery alone	Surgery with radiotherapy	Surgery alone	Surgery with radiotherapy	
Age (Years)					
<60	2403 (34.9)	1600 (50.2)	1130 (46.5)	1600 (50.2)	<0.001
≥60	4485 (65.1)	1586 (49.8)	1302 (53.5)	1586 (49.8)	0.005
Gender					
Male	3692 (53.6)	1932 (60.6)	1454 (59.8)	1932 (60.6)	<0.001
Female	3196 (46.4)	1254 (39.4)	978 (40.2)	1254 (39.4)	0.517
Race					
Black	640 (9.3)	286 (9.0)	211 (8.7)	286 (9.0)	0.450
White	5525 (80.2)	2533 (79.5)	1944 (79.9)	2533 (79.5)	
Other race	698 (10.1)	356 (11.2)	269 (11.1)	356 (11.2)	
Unknown	25 (0.4)	11 (0.3)	8 (0.3)	11 (0.3)	0.978
AJCC Stage					
Stage II	3040 (44.1)	1297 (40.7)	987 (40.6)	1297 (40.7)	0.001
Stage III	3848 (55.9)	1889 (59.3)	1445 (59.4)	1889 (59.3)	0.924
Histological type					
Adenocarcinoma	6421 (93.2)	2923 (91.7)	2256 (92.8)	2923 (91.7)	0.025
Mucinous/Signet-ring cell cancer	443 (6.4)	247 (7.8)	171 (7.0)	247 (7.8)	
Others	24 (0.3)	16 (0.5)	5 (0.2)	16 (0.5)	0.113
Grade					
Grade I	418 (6.1)	182 (5.7)	148 (6.1)	182 (5.7)	<0.001
Grade II	5225 (75.9)	2317 (72.7)	1798 (73.9)	2317 (72.7)	
Grade III	1009 (14.6)	485 (15.2)	379 (15.6)	485 (15.2)	
Grade IV	103 (1.5)	50 (1.6)	32 (1.3)	50 (1.6)	
Unknown	133 (1.9)	152 (4.8)	75 (3.1)	152 (4.8)	0.026
The number of lymph nodes					
< 12	1846 (26.8)	1027 (32.2)	989 (31.1)	1027 (32.2)	<0.001
≥ 12	4990 (72.4)	2131 (66.9)	2169 (68.0)	2131 (66.9)	0.591
Unknown	52 (0.8)	28 (0.9)	28 (0.9)	28 (0.9)	
Tumor size (cm)					
< 2	242 (3.5)	173 (5.4)	127 (4.0)	173 (5.4)	<0.001
2-5	3395 (49.3)	1307 (41.0)	1367 (42.9)	1307 (41.0)	
≥ 5	2871 (41.7)	1357 (42.6)	1351 (42.4)	1357 (42.6)	
Unknown	380 (5.5)	349 (11.0)	341 (10.7)	349 (11.0)	0.037