S3 Table. Multivariate analysis of 50 SNPs in MMR genes and acute adverse events in patients with rectal cancer receiving postoperative CRT

SNP	Gene	Variation	Leukopenia		Diarrhea		Dermatitis	
			OR (95% CI) [a)]	p-value	OR (95% CI) [a)]	p-value	OR (95% CI) [a)]	p-value
rs1540354	*MLH1*	A>T	0.86 (0.60-1.21)	0.388	1.08 (0.77-1.51)	0.666	1.21 (0.81-1.80)	0.345
rs175057	*MLH3*	C>T	1.07 (0.69-1.64)	0.752	0.79 (0.52-1.21)	0.282	0.86 (0.49-1.43)	0.568
rs175068	*MLH3*	A>G	1.04 (0.67-1.61)	0.851	0.84 (0.54-1.30)	0.442	0.88 (0.50-1.47)	0.638
rs4026175	*MLH3*	A>C	0.81 (0.57-1.13)	0.211	0.80 (0.57-1.11)	0.179	0.73 (0.49-1.09)	0.130
rs56329719	*MLH3*	A>T	0.39 (0.09-1.82)	0.233	1.47 (0.43-4.96)	0.539	1.26 (0.33-4.83)	0.739
rs5809691	*MLH3*	A>del	1.12 (0.72-1.70)	0.611	0.81 (0.53-1.24)	0.341	0.85 (0.49-1.41)	0.550
rs10188090	*MSH2*	A>G	1.11 (0.77-1.59)	0.565	0.88 (0.61-1.25)	0.467	1.11 (0.73-1.67)	0.634
rs10191478	*MSH2*	T>G	1.10 (0.73-1.64)	0.631	1.26 (0.83-1.92)	0.278	1.51 (0.95-2.36)	0.073
rs13019654	*MSH2*	G>T	0.73 (0.48-1.08)	0.122	0.85 (0.57-1.26)	0.421	1.06 (0.67-1.64)	0.797
rs1981929	*MSH2*	A>G	1.28 (0.82-1.98)	0.277	1.30 (0.84-2.05)	0.247	1.51 (0.91-2.46)	0.105
rs2042649	*MSH2*	T>C	1.00 (0.72-1.38)	0.990	1.17 (0.85-1.62)	0.335	1.08 (0.74-1.58)	0.682
rs2303428	*MSH2*	T>C	1.23 (0.87-1.74)	0.249	1.11 (0.78-1.60)	0.561	0.95 (0.63-1.43)	0.818
rs3771273	*MSH2*	T>A	1.20 (0.85-1.69)	0.295	0.91 (0.64-1.28)	0.576	1.13 (0.75-1.67)	0.558
rs4608577	*MSH2*	T>G	0.84 (0.52-1.30)	0.436	0.89 (0.57-1.39)	0.614	0.82 (0.47-1.39)	0.482
rs4952887	*MSH2*	C>T	1.03 (0.64-1.64)	0.900	0.64 (0.40-1.02)	0.064	0.89 (0.48-1.57)	0.699
rs6544991	*MSH2*	A>C	0.72 (0.50-1.02)	0.065	0.86 (0.61-1.22)	0.405	0.89 (0.59-1.33)	0.570
rs6544997	*MSH2*	A>G	0.98 (0.65-1.44)	0.905	1.32 (0.94-1.85)	0.106	1.22 (0.83-1.79)	0.320
rs12513549	***MSH3***	**G>T**	1.00 (0.70-1.42)	0.988	**0.68 (0.48-0.97)**	**0.037**	1.02 (0.66-1.55)	0.929
rs181747	*MSH3*	T>C	1.06 (0.74-1.51)	0.752	1.12 (0.78-1.60)	0.550	1.04 (0.68-1.58)	0.843
rs245346	*MSH3*	A>G	1.22 (0.86-1.72)	0.263	1.19 (0.85-1.69)	0.311	1.03 (0.69-1.54)	0.873
rs26279	*MSH3*	A>G	0.86 (0.58-1.24)	0.420	0.84 (0.58-1.22)	0.365	0.97 (0.61-1.49)	0.874
rs33008	*MSH3*	G>C	1.09 (0.73-1.61)	0.670	1.41 (0.96-2.11)	0.085	1.05 (0.66-1.65)	0.821
rs33013	***MSH3***	**A>G**	0.91 (0.64-1.27)	0.569	**0.71 (0.50-0.99)**	**0.049**	0.72 (0.48-1.09)	0.124
rs4703819	*MSH3*	C>G	1.01 (0.70-1.45)	0.978	1.02 (0.70-1.47)	0.928	1.17 (0.77-1.78)	0.464
rs6151627	***MSH3***	**A>G**	0.98 (0.65-1.44)	0.905	**1.51 (1.02-2.27)**	**0.041**	1.21 (0.77-1.88)	0.408
rs138593458	*MSH6*	del>AG	0.76 (0.43-1.28)	0.314	1.03 (0.61-1.73)	0.913	1.50 (0.84-2.62)	0.163
rs1800934	*MSH6*	G>T	1.00 (0.79-1.27)	0.975	1.23 (0.97-1.56)	0.088	0.98 (0.74-1.29)	0.864
rs2348244	*MSH6*	T>C	1.05 (0.77-1.45)	0.746	0.91 (0.66-1.26)	0.584	0.95 (0.66-1.37)	0.804

rs3136245	*MSH6*	T>C	0.99 (0.70-1.39)	0.953	1.38 (0.98-1.95)	0.065	1.03 (0.68-1.53)	0.902
rs3136289	*MSH6*	G>T	1.01 (0.68-1.49)	0.955	0.70 (0.47-1.04)	0.081	0.96 (0.60-1.51)	0.864
rs1233255	***PMS1***	**A>C**	1.58 (0.96-2.57)	0.065	0.93 (0.56-1.53)	0.774	**0.48 (0.23-0.93)**	**0.041**
rs1233258	*PMS1*	T>C	1.19 (0.85-1.68)	0.300	0.98 (0.70-1.38)	0.924	0.88 (0.58-1.32)	0.547
rs1233284	*PMS1*	G>A	1.22 (0.82-1.77)	0.312	1.04 (0.71-1.52)	0.840	0.79 (0.48-1.24)	0.318
rs4920657	*PMS1*	T>A	0.98 (0.67-1.42)	0.921	1.06 (0.74-1.52)	0.759	1.17 (0.75-1.79)	0.477
rs5743030	*PMS1*	G>A	0.81 (0.46-1.35)	0.428	1.19 (0.72-2.00)	0.498	0.71 (0.96-2.99)	0.062
rs5743035	*PMS1*	del>ATAA	1.11 (0.77-1.59)	0.563	1.30 (0.91-1.87)	0.154	0.71 (0.44-1.12)	0.152
rs5743100	*PMS1*	G>T	0.97 (0.58-1.61)	0.920	1.15 (0.70-1.91)	0.581	1.43 (0.79-2.52)	0.225
rs5743112	*PMS1*	C>A	1.22 (0.80-1.87)	0.354	1.26 (0.83-1.95)	0.284	0.97 (0.56-1.61)	0.898
rs12536167	*PMS2*	A>G	1.14 (0.82-1.57)	0.429	1.25 (0.90-1.77)	0.190	0.86 (0.56-1.26)	0.444
rs140788589	*PMS2*	C>T	1.20 (0.74-1.95)	0.464	0.89 (0.55-1.42)	0.614	0.89 (0.51-1.56)	0.685
rs145874235	*PMS2*	TG>del	0.69 (0.43-1.06)	0.102	0.95 (0.62-1.45)	0.820	1.07 (0.65-1.71)	0.775
rs201018511	*PMS2*	G>A	0.92 (0.58-1.48)	0.743	1.22 (0.77-1.95)	0.391	0.91 (0.52-1.58)	0.740
rs58032887	*PMS2*	G>C	1.06 (0.80-1.41)	0.685	0.93 (0.70-1.23)	0.593	1.17 (0.84-1.63)	0.349
rs62456170	*PMS2*	G>C	0.81 (0.51-1.30)	0.389	1.43 (0.90-2.29)	0.130	0.86 (0.49-1.49)	0.596
rs62456182	*PMS2*	T>C	0.90 (0.64-1.26)	0.536	1.09 (0.78-1.54)	0.603	1.17 (0.78-1.76)	0.436
rs72363238	*PMS2*	A>del	1.09 (0.80-1.50)	0.581	0.91 (0.66-1.25)	0.575	0.96 (0.66-1.38)	0.811
rs75973354	*PMS2*	A>G	1.09 (0.75-1.59)	0.637	1.02 (0.70-1.49)	0.900	1.02 (0.66-1.57)	0.922
rs7776504	*PMS2*	C>T	1.08 (0.78-1.48)	0.652	0.91 (0.66-1.26)	0.576	0.94 (0.65-1.36)	0.753
rs7797466	*PMS2*	G>A	0.67 (0.41-1.05)	0.091	1.04 (0.67-1.62)	0.865	1.13 (0.68-1.84)	0.614
rs79192116	*PMS2*	T>C	0.90 (0.61-1.33)	0.612	1.15 (0.78-1.69)	0.492	0.98 (0.62-1.52)	0.930

SNP, single nucleotide polymorphism; MMR, mismatch repair; CRT, chemoradiotherapy; OR, odds ratio; 95% CI, 95% confidence interval. [a)]Calculated by logistic regression model and adjusted for gender, age, clinical stage, tumor grade, KPS, surgical procedure and tumor location.