Supplementary Table S1. Univariate analyses of factors associated with 36-month mortality			
Variable	**Death no (n=86)**	**Death yes (n=34)**	**p-value (death)**
Age (years), mean ± SD	62.1±10.1	63.7±15.1	p=0.43[3]
ASA score, n (%) - Low (I-II) - High (III-IV)	 121 (81.2%) 12 (57.1%)	 28 (18.8%) 9 (42.9%)	p=0.02[2]
Charlson comorbidity index, median (IQR)	4 (2)	5 (4)	p=0.005[4]
Albumin (g/L), median (IQR)	42 (5)	40 (8)	p=0.03[4]
Neoadjuvant therapy, n (%) - Yes - No	 55 (74.3%) 77 (81.1%)	 19 (25.7%) 18 (18.9%)	p=0.29[1]
Distance from anal verge (cm), median (IQR)	9 (9.2)	7 (8)	p=0.41[4]
Type of surgery, n (%) - Hartmann's procedure - LAR/APR	 16 (45.7%) 117 (86%)	 19 (54.3%) 19 (14%)	p<0.001[1]
T stage, n (%) - Early (Tis, T0, T1, T2, T3) - Advanced (T4)	 109 (79%) 24 (75%)	 29 (21%) 8 (25%)	p=0.62[1]
N stage, n (%) - N0 - N+	 92 (85.2%) 41 (66.1%)	 16 (14.8%) 21 (33.9%)	p=0.004[1]
Number of positive lymph nodes, median (IQR)	0 (1)	0 (2)	p=0.07[4]
Perineural invasion, n (%) - Yes - No	 36 (66.7%) 90 (82.6%)	 18 (33.3%) 19 (17.4%)	p=0.02[1]
TME quality, n (%) - Incomplete - Near complete/complete	 15 (60.0%) 107 (82.9%)	 10 (40.0%) 22 (17.1%)	p=0.01[1]
Distal resection margin, n (%) - Positive - Negative	 6 (75%) 127 (77.9%)	 2 (25%) 36 (22.1%)	p=1.00[2]
Circumferential resection margin, n (%) - Positive - Negative	 10 (50%) 123 (82%)	 10 (50%) 27 (18%)	p=0.003[2]

Statistical tests: [1]: Chi-square test, [2]: Fisher's exact test, [3]: Independent samples t-test, [4]: Mann-Whitney U test, SD: Standard deviation, IQR: Interquartile range, ASA: American Society of Anesthesiologists, LAR: Low anterior resection, APR: Abdominoperineal resection, TME: Total mesorectal excision.

Supplementary Table S2. Multivariate logistic regression analysis identifying independent predictors of 36-month mortality			
Predictor	**Odds ratio**	**95% CI**	**p-value**
Charlson comorbidity index (per 1-point increase)	1.34	1.01-1.77	0.03
Albumin (per 1 g/dL increase)	0.98	0.89-1.08	0.76
Type of surgery (Hartmann's vs. others)	5.35	1.77-16.15	0.003
TME quality (incomplete vs. others)	3.15	1.00-9.90	0.04
Perineural invasion (present vs. absent)	1.98	0.73-5.33	0.06
N stage (positive vs. negative)	2.65	0.95-7.40	0.44

TME: Total mesorectal excision, CI: Confidence interval.