Supplementary

Tables

Table S1. Comparison of clinicopathological characteristics between LNR subgroups among pN1a-b and pN2 stages

Variable	pN1a-b *p* for LNR ≤0.10 vs >10	pN2 *p* for LNR ≤0.25 vs >0.25
Age	0.351	0.482
Gender	0.857	0.657
Diabetes	0.897	0.944
Hypertension	0.679	0.815
CAD	0.812	0.409
Primary tumor location	0.155	0.672
Urgent surgery	0.821	0.963
pT stage	0.112	0.748
Tumor grade	**0.033**	0.848
Mucinous component	0.885	0.210
LVI	0.778	0.195
PNI	0.514	0.114
Budding	0.755	0.687
MSI-H	0.604	0.660
RAS mutation	0.126	0.522
RAF mutation	NC	0.657
ABO groups	0.642	0.915
Rh	0.876	0.251
Adjuvant chemotherapy type	0.618	0.208

Abbreviations: CAD: coronary artery disease, LVI: lymphovascular invasion, PNI: perineural invasion, MSI-H: microsatellite instability-high, NC: Not calculated

Table S2. Univariable Cox regression analysis for RFS

Variable	HR (95% CI)	P
Age (Continous variable)	0.97 (0.94-1.00)	0.127
Gender, (Male vs. female)	0.82 (0.34-2.00)	0.674
Diabetes (Present vs absent)	0.87 (0.25-2.98)	0.829
Hypertension, (Present vs absent)	1.88 (0.68-5.19)	0.221
CAD, n (%)	0.94 (0.21-4.08)	0.939
Tumor location (Left vs right)	0.79 (0.50-1.23)	0.300
Urgent surgery (Obstruction vs. no)	1.82 (0.77-4.32)	0.169
T stage (T4 vs T3)	1.77 (0.73-4.29)	0.203
Lymph node examined (Continous variable)	0.99 (0.96-1.03)	0.927
Lymph node involved (Continous variable)	1.21 (1.11-1.33)	**0.000**
LNR (Continous variable)	111.16 (17.35-711.89)	**0.000**
N stage (pN2 vs pN1a-n)	3.43 (1.42-8.32)	**0.006**
Tumor grade (3 vs 2)	0.71 (0.08-5.73)	0.535
Mucinous component (Present vs absent)	3.11 (1.29-7.51)	**0.012**
LVI (Present vs absent)	1.84 (0.73-4.62)	0.192
PNI (Present vs absent)	1.41 (0.58-3.42)	0.439
Budding (Present vs absent)	1.07 (0.41-2.79)	0.888
MSI-H (Yes vs No)	2.60 (0.75-9.03)	0.130
RAS (Mutant vs WT)	4.84 (1.35-17.25)	**0.015**
ABO group		
A vs AB	0.63 (0.14-2.90)	0.575
B vs AB	0.19 (0.01-2.13)	0.181
O vs AB	0.28 (0.04-2.05)	0.215
Rh (Negative vs positive)	0.51 (0.06-3.84)	0.515
Perioperative treatment (Yes vs No)	0.04 (0.00-55.20)	0.38
Adjuvant chemotherapy (XELOX vs FOLFOX)	1.42 (0.75-2.68)	0.276
Adjuvant chemotherapy cycle (Continous variable)	0.92 (0.78-1.08)	0.337

Abbreviations: CAD: coronary artery disease, LNR: lymph node ratio, LVI: lymphovascular invasion, PNI: perineural invasion, WT: wild type, FOLFOX: Fluorouracil, leucovorin, and oxaliplatin, MSI-H: microsatellite instability-high, UK: unknown, XELOX: Capecitabine and oxaliplatin.