

Table S1 Clinicopathologic characteristics of the training and the validation set of gastric cancer patients

Clinicopathologic features	Training set (n=1010) n (%)	Validation set (n=414) n (%)
Gender		
Male	795 (78.7%)	319 (77.1%)
Female	215 (21.3%)	95 (22.9%)
Age (years), median (IQR)	58.0 (51.0, 66.0)	57.0 (50.0, 65.0)
Pain [#]		
Mild	329 (32.6%)	147 (35.5%)
Severe	681 (67.4%)	267 (64.5%)
Flatulence		
No	601 (59.5%)	242 (58.5%)
Yes	409 (40.5%)	172 (41.5%)
Deglutition disorders		
No	852 (84.4%)	349 (84.3%)
Yes	158 (15.6%)	65 (15.7%)
Vomiting		
No	933 (92.4%)	375 (90.6%)
Yes	77 (7.6%)	39 (9.4%)
Acid regurgitation		
No	836 (82.8%)	356 (86.0%)
Yes	174 (17.2%)	58 (14.0%)
Weight loss (kg)		
0	530 (52.5%)	223 (53.9%)
0-5	333 (33.0%)	142 (34.3%)
>5	147 (14.6%)	49 (11.8%)
Smoking		
No	719 (71.2%)	292 (70.5%)
Yes	291 (28.8%)	122 (29.5%)
Drinking		
No	909 (90.0%)	365 (88.2%)
Yes	101 (10.0%)	49 (11.8%)
Operation history		
No	791 (78.3%)	330 (79.7%)
Yes	219 (21.7%)	84 (20.3%)
Family tumor history		
No	980 (97.0%)	404 (97.6%)
Yes	30 (3.0%)	10 (2.4%)
Other diseases		
No	770 (76.2%)	322 (77.8%)
Yes	240 (23.8%)	92 (22.2%)
CEA (IU/ml), median (IQR)	1.8 (0.8, 3.6)	1.6 (0.7, 3.1)
CA 19-9 (IU/mL), median (IQR)	7.2 (2.4, 17.4)	7.2 (2.2, 17.9)
CA 125 (IU/mL), median (IQR)	8.4 (4.2, 14.0)	9.0 (2.1, 14.1)
Surgery		
Open surgery	638 (63.2%)	239 (57.7%)
Endoscopic surgery	372 (36.9%)	175 (42.2%)
Gastrectomy		
Proximal	139 (13.8%)	45 (10.9%)
Distal	369 (36.5%)	168 (40.6%)
Localized	6 (0.6%)	3 (0.7%)
Total	496 (49.1%)	198 (47.8%)
Gastrointestinal anastomosis		
Mechanical	829 (82.1%)	324 (78.3%)
Hand-sewn	181 (17.9%)	90 (21.7%)
Lymphadenectomy		
D1 or D1+	435 (43.1%)	221 (53.4%)
D2 or D2+	575 (56.9%)	193 (46.6%)
Tumor size (cm), median (IQR)	5.0 (3.0, 6.0)	5.0 (3.0, 6.0)

Table S1 (continued)

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Clinicopathologic features	Training set (n=1010) n (%)	Validation set (n=414) n (%)
Borrmann		
EGC	61 (6.0%)	17 (4.1%)
1	63 (6.2%)	27 (6.5%)
2	473 (46.8%)	188 (45.4%)
3	213 (21.1%)	89 (21.5%)
4	156 (15.4%)	72 (17.4%)
Unknown	44 (4.4%)	21 (5.1%)
Prime site		
Cardia	320 (31.7%)	122 (29.5%)
Body	338 (33.5%)	136 (32.9%)
Pylorus	36 (3.6%)	14 (3.4%)
Antrum	294 (29.1%)	133 (32.1%)
Whole	2 (0.2%)	0 (0.0%)
Mixed	20 (2.0%)	9 (2.2%)
Grade		
Poorly or undifferentiated	542 (53.7%)	220 (53.1%)
Well or moderately	468 (46.3%)	194 (46.9%)
HER2		
0	578 (57.230%)	248 (59.90%)
1+/2+/3+	432 (42.77%)	166 (40.10%)
Adjacent organs invasion		
No	792 (78.4%)	340 (82.1%)
Yes	218 (21.6%)	74 (17.9%)
Distant metastasis		
No	985 (97.5%)	401 (96.9%)
Yes	25 (2.5%)	13 (3.1%)
Intra-abdominal planting		
No	1001 (99.1%)	409 (98.8%)
Yes	9 (0.9%)	5 (1.2%)
Positive LN, median (IQR)		
	3.0 (0.0, 8.0)	2.0 (0.0, 9.0)
Examined LN, median (IQR)		
	22.0 (17.0, 29.0)	23.0 (17.0, 29.0)
T stage[*]		
Tis	7 (0.7%)	3 (0.7%)
T1	131 (13.0%)	48 (11.6%)
T2	161 (15.9%)	69 (16.7%)
T3	514 (50.9%)	216 (52.2%)
T4	197 (19.5%)	78 (18.8%)
N stage[*]		
N0	309 (30.6%)	139 (33.6%)
N1	253 (25.0%)	97 (23.4%)
N2	178 (17.6%)	72 (17.4%)
N3	270 (26.7%)	106 (25.6%)
Perineural invasion		
No	586 (58.0%)	239 (57.7%)
Yes	424 (42.0%)	175 (42.3%)
Vascular invasion		
No	648 (64.2%)	265 (64.0%)
Yes	362 (35.8%)	149 (36.0%)
NAC		
No	990 (98.0%)	403 (97.3%)
Yes	20 (2.0%)	11 (2.7%)
Chemotherapy		
No	625 (61.9%)	250 (60.4%)
Yes	385 (38.1%)	164 (39.6%)

IQR, interquartile range; CEA, carcinoembryonic antigen; CA 19-9, carbohydrate antigen 199; CA 125, carbohydrate antigen 125; HER2, human epidermal growth factor receptor-2; LN, lymph node; NAC, neoadjuvant chemotherapy. #: The index of pain was converted from light to heavy into a scale from 0 to 10, with 0-5 indicating mild pain and 6-10 indicating severe pain. *: T stage and N stage were confirmed by postoperative pathological diagnosis.