

S3 Table. Univariate and multivariate Cox proportional regression analyses of the metachronous recurrence in the whole cohort (n=261)

| | Crude HR (95% CI) | p-value | p for trend | Adjusted HR ^{a)} (95% CI) | p-value ^{a)} | p for trend |
|------------------------|-------------------|---------------------|---------------------|------------------------------------|-----------------------|---------------------|
| MOS high ^{b)} | 4.46 (1.46-13.62) | 0.009 ^{c)} | | 4.49 (1.45-13.86) | 0.009 ^{c)} | |
| Atrophic gastritis | 1.13 (0.13-9.66) | 0.914 | | 1.05 (0.11-10.23) | 0.966 | |
| Intestinal metaplasia | 3.07 (0.41-23.09) | 0.277 | | 2.74 (0.36-21.07) | 0.333 | |
| MOS quartile | | | | | | |
| Q1 | 1 (reference) | | | 1 (reference) | | |
| Q2 | 1.50 (0.37-6.05) | 0.570 | | 1.31 (0.32-5.39) | 0.705 | |
| Q3 | 2.88 (0.74-11.30) | 0.128 | | 2.75 (0.70-10.86) | 0.149 | |
| Q4 | 3.22 (0.92-11.22) | 0.066 | 0.041 ^{c)} | 2.99 (0.86-10.48) | 0.086 | 0.049 ^{c)} |
| OLGA stage | | | | | | |
| 0 | 1 (reference) | | | 1 (reference) | | |
| 1 | 1.95 (0.20-19.13) | 0.568 | | 1.81 (0.15-22.37) | 0.643 | |
| 2 | 0.65 (0.04-10.48) | 0.758 | | 0.62 (0.03-11.30) | 0.745 | |
| 3 | 0.67 (0.04-11.17) | 0.782 | | 0.58 (0.03-12.17) | 0.727 | |
| 4 | 1.29 (0.08-21.82) | 0.861 | 0.660 | 1.38 (0.08-24.72) | 0.829 | 0.650 |
| OLGIM stage | | | | | | |
| 0 | 1 (reference) | | | 1 (reference) | | |
| 1 | 3.71 (0.43-31.87) | 0.232 | | 3.44 (0.39-30.09) | 0.265 | |
| 2 | 2.51 (0.30-20.93) | 0.396 | | 2.39 (0.28-20.33) | 0.424 | |
| 3 | 2.70 (0.30-24.65) | 0.379 | | 2.20 (0.23-20.90) | 0.492 | |
| 4 | 4.08 (0.45-37.05) | 0.212 | 0.393 | 3.61 (0.38-34.21) | 0.263 | 0.537 |

CI, confidence interval; HR, hazard ratio; OLGA, operative link on gastritis assessment; OLGIM, operative link on gastric intestinal metaplasia assessment. ^{a)}Adjusted for age, sex, *Helicobacter pylori* infection status, and smoking, ^{b)}The cutoff value (35.82%) of high or low MOS methylation levels was determined by receiver operating curve analysis. Atrophic gastritis and intestinal metaplasia were defined as the presence of histologic atrophy (score 1-3) and intestinal metaplasia (score 1-3), respectively, at either antrum or corpus by the updated Sydney scoring system,

^{c)}Statistically significant.