**Appendix** **Table 1. Associations of demographic and clinical characteristics with cancer-specific death in patients with lymph nodes retrieved.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Univariate Analyses | | | Multivariate Analysis | | |
| Factor | SHR | 95% CI | P value | SHR | 95% CI | P value |
| Age (year) | 1.04 | 1.00-1.07 | 0.03 | 1.02 | 0.97-1.09 | 0.43 |
| Gender |  |  |  |  |  |  |
| Female | Reference |  |  |  |  |  |
| Male | 1.27 | 0.40-4.06 | 0.68 |  |  |  |
| Race |  |  |  |  |  |  |
| White | Reference |  |  | Reference |  |  |
| Black | 1.56 | 0.33-7.33 | 0.57 | 1.68 | 0.32-8.87 | 0.54 |
| Other | 9.41 | 2.14-41.35 | <0.01 | 1.88 | 0.37-9.58 | 0.45 |
| Histological type |  |  |  |  |  |  |
| Pure | Reference |  |  | Reference |  |  |
| Mixed | 11.40 | 3.04-42.90 | <0.01 | 7.64 | 1.50-38.87 | 0.01 |
| Differentiated grade |  |  |  |  |  |  |
| Well differentiated | Reference |  |  |  |  |  |
| Moderately differentiated | 2.88 | 0.88-9.46 | 0.08 |  |  |  |
| Size (mm) |  |  |  |  |  |  |
| ≤10 | Reference |  |  |  |  |  |
| 11-20 | 1.33 | 0.12-14.80 | 0.82 |  |  |  |
| >21 | 3.64 | 0.45-29.50 | 0.23 |  |  |  |
| Depth of invasion a |  |  |  |  |  |  |
| MP/TMP | Reference |  |  |  |  |  |
| TS | 1.74 | 0.51-5.91 | 0.37 |  |  |  |
| Nodal status |  |  |  |  |  |  |
| LNN | Reference |  |  |  |  |  |
| LNP | 2.92 | 0.84-10.10 | 0.09 |  |  |  |
| Metastatic status |  |  |  |  |  |  |
| No | Reference |  |  | Reference |  |  |
| Yes | 12.40 | 3.65-42.10 | <0.01 | 6.72 | 1.31-34.38 | 0.02 |
| Surgical procedure |  |  |  |  |  |  |
| LRHC | Reference |  |  | Reference |  |  |
| RHCM | 1.44 | 0.38-5.38 | 0.59 | 1.64 | 0.44-6.13 | 0.46 |

Abbreviations: SHR: Subdistribution hazard ratio; CI: Confidential interval; LRHC: less extended than right hemicolectomy; RHCM: right hemicolectomy/ more extended procedure; LP: invasion of the lamina propria; MP/TMP: invasion or through the muscularis propria; TS: invasion through the serosa and adjacent structures; NLNE: no lymph nodes examined; LNN: lymph nodes examined with negative lymph nodes; LNP: lymph nodes examined with positive lymph nodes.

a. Patients with invasion of LP were excluded from univariate and multivariate analyses because none of them dead of cancer-specific death, and analyses could not be performed in such a situation.