

Table S1 Cox multivariable analysis for OS and PFS in 366 cases sensitivity analysis

| Characteristic | OS | | PFS | |
|-------------------------------|----------------------|---------|---------------------|---------|
| | HR (95% CI) | P value | HR (95% CI) | P value |
| SII | | | | |
| Low | 1 (reference) | NA | 1 (reference) | NA |
| High | 1.781 (1.474–2.310) | <0.001 | 1.562 (1.223–1.919) | <0.001 |
| Sex | | | | |
| Male | 1 (reference) | NA | 1 (reference) | NA |
| Female | 0.601 (0.425–0.854) | 0.01 | 0.801 (0.501–1.216) | 0.21 |
| Age, years | | | | |
| <60 | 1 (reference) | NA | 1 (reference) | NA |
| ≥60 | 1.522 (0.179–1.918) | 0.06 | 0.996 (0.919–1.224) | 0.42 |
| Smoking status | | | | |
| Current or ex-smoker | 1 (reference) | NA | 1 (reference) | NA |
| Never smoker | 1.423 (0.675–2.237) | 0.43 | 1.025 (0.721–1.348) | 0.65 |
| ECOG score | | | | |
| 0–1 | 1 (reference) | NA | 1 (reference) | NA |
| ≥2 | 1.072 (0.787–1.390) | 0.78 | 0.933 (0.647–1.011) | 0.26 |
| District | | | | |
| Urban | 1 (reference) | NA | 1 (reference) | NA |
| Rural | 0.899 (0.712–1.361) | 0.83 | 0.881 (0.678–1.126) | 0.21 |
| Tumor location | | | | |
| Central | 1 (reference) | NA | 1 (reference) | NA |
| Peripheral | 0.924 (0.708–1.201) | 0.55 | 0.820 (0.670–1.093) | 0.20 |
| T staging | | | | |
| 1–2 | 1 (Reference) | NA | 1 (Reference) | NA |
| 3–4 | 1.135 (0.899–1.624) | 0.37 | 1.145 (0.872–1.536) | 0.76 |
| N staging | | | | |
| 0–1 | 1 (reference) | NA | 1 (reference) | NA |
| 2 | 1.683 (1.265–2.589) | 0.001 | 1.584 (1.235–2.325) | 0.003 |
| 3 | 2.771 (1.934–4.371) | <0.001 | 2.015 (1.237–2.793) | <0.001 |
| Serum sodium | | | | |
| Lower | 1 (reference) | NA | 1 (reference) | NA |
| Normal | 0.866 (0.613–0.901) | 0.02 | 0.787 (0.712–1.114) | 0.21 |
| Albumin level | | | | |
| Lower | 1 (reference) | NA | 1 (reference) | NA |
| Normal | 0.889 (0.7531–1.257) | 0.42 | 0.918 (0.667–1.234) | 0.41 |
| Treatment modality | | | | |
| Chemoradiotherapy | 1 (reference) | NA | 1 (reference) | NA |
| Chemotherapy | 2.368 (1.283–4.432) | 0.009 | 3.247 (1.822–5.781) | 0.01 |
| Radiotherapy | 1.908 (1.572–6.363) | 0.03 | 1.821 (0.634–5.132) | 0.24 |
| Cycles of chemotherapy | | | | |
| <4 | 1 (reference) | NA | 1 (reference) | NA |
| 4–6 | 0.761 (0.611–1.151) | 0.13 | 0.767 (0.554–0.955) | 0.02 |
| >6 | 0.933 (0.564–1.288) | 0.45 | 0.658 (0.421–0.810) | 0.02 |
| Response | | | | |
| CR + PR | 1 (reference) | NA | 1 (reference) | NA |
| SD | 3.662 (2.354–4.014) | <0.001 | 2.998 (1.627–3.882) | <0.001 |
| PD | 7.821 (3.140–22.232) | <0.001 | – | – |
| PCI | | | | |
| Yes | 1 (reference) | NA | 1 (reference) | NA |
| No | 1.447 (1.324–2.235) | 0.001 | 2.101 (1.411–2.234) | <0.001 |
| BM after treatment | | | | |
| Yes | 1 (reference) | NA | – | – |
| No | 2.113 (1.146–2.105) | <0.001 | – | – |

OS, overall survival; PFS, progression free survival; 1 (reference), control; HR, hazard ratio; NA, not applicable; –, not counted; SII, systemic immune-inflammation index; ECOG, Eastern Cooperative Oncology Group; CR, complete response; PR, partial response; SD, stable disease; PD, progressive disease; PCI, prophylactic cranial irradiation; BM, brain metastasis.