Article

Blood Lymphocytes as a prognostic factor for stage III non–small cell lung cancer with concurrent chemoradiation

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**Supplementary Materials**

Table S1. Association between clinical factors and RP or RE Gr ≥ 3 by univariate analysis

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable |  | No. of RPs/Total (%) | p-value\* | No. of REs/Total (%) | p-value\* |
| Treatment arm | 6 w | 7/96 (7.3) | 0.207 | 4/96 (4.2) | 0.717 |
|  | 5 w | 3/100 (3) |  | 3/100 (3) |  |
| Age | ≤ 65 | 0/91 (0.0) | 0.002 | 1/91 (1.1) | 0.082 |
|  | > 65 | 10/105 (9.5) |  | 6/105 (5.7) |  |
| Sex | Male | 10/183 (5.5%) | 1.000 | 7/183 (3.8%) | 1.000 |
|  | Female | 0/13 (0) |  | 0/13 (0) |  |
| Stage | IIIA | 7/141 (5.0) | 1.000 | 6/141 (4.3) | 0.676 |
|  | IIIB | 3/55 (5.5) |  | 1/55 (1.8) |  |
| T stage | 1 | 1/18 (5.6) | 0.681 | 1/18 (5.6) | 0.030 |
|  | 2 | 4/52 (7.7) |  | 5/52 (9.6) |  |
|  | 3 | 4/81 (4.9) |  | 0/81 (0.0) |  |
|  | 4 | 1/45 (2.2) |  | 1/45 (2.2) |  |
| N stage | 0 | 1/5 (16.7) | 0.226 | 0/5 (0.0) | 0.973 |
|  | 1 | 1/28 (3.6) |  | 1/28 (3.6) |  |
|  | 2 | 5/135 (3.7) |  | 5/135 (3.7) |  |
|  | 3 | 3/27 (11.1) |  | 1/27 (3.7) |  |
| ECOG | 0 | 1/25 (4.0) | 1.000 | 2/25 (8.0) | 0.220 |
|  | 1 | 9/171 (5.3) |  | 5/171 (2.9) |  |
| Pul. Tbc | No | 9/189 (4.8) | 0.311 | 7/189 (3.7) | 1.000 |
|  | Yes | 1/7 (14.3) |  | 0/7 (0.0) |  |
| HTN | No | 4/135 (3.0) | 0.073 | 4/135 (3.0) | 0.495 |
|  | Yes | 6/61 (9.8) |  | 3/61 (4.9) |  |
| DM | No | 9/160 (5.6) | 0.692 | 7/160 (4.4) | 0.353 |
|  | Yes | 1/36 (2.8) |  | 0/36 (0.0) |  |
| Smoking | No | 1/69 (1.4) | 0.102 | 3/69 (4.3) | 0.699 |
|  | Yes | 9/127 (7.1) |  | 4/127 (3.1) |  |
| Lobe | Others | 3/129 (2.3) | 0.033 | 4/129 (3.1) | 0.284 |
|  | Lower lobe | 7/67 (10.4) |  | 3/67 (4.5) |  |
| ILD | No | 7/180 (3.7) | 0.007 | 6/187 (3.2) | 0.308 |
|  | Yes | 3/9 (33.3) |  | 1/ 9 (11.1) |  |
| DLCO (%) | ≤ 65 | 6/33 (18.2) | 0.002 | 1/33 (3.0) | 1.000 |
|  | > 66 | 4/163 (2.5) |  | 6/163 (3.7) |  |

Abbreviations: ECOG: Eastern Cooperative Oncology Group, HTN: Hypertension, DM: Diabetes mellitus, ILD: Interstitial lung disease, DLCO: Diffusion lung capacity for carbon monoxide, RP: Radiation pneumonitis, RE: Radiation esophagitis. \*Fisher’s exact test or chi-square test.

**Table S2. Association between dosimetric factors and RP (≥ G3) by univariate analysis**

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | RP < G3 | RP ≥ G3 | p-value\* |
| MLD | 1097.15 ± 295.28 | 1389.98 ± 413.96 | 0.003 |
| Lung V5 | 33.71 ± 12.61 | 44.47 ± 13.78 | 0.010 |
| Lung V10 | 26.47 ± 8.80 | 33.87 ± 10.03 | 0.011 |
| Lung V20 | 19.98 ± 5.55 | 25.70 ± 7.56 | 0.002 |
| Lung V30 | 15.50 ± 4.84 | 19.55 ± 6.47 | 0.012 |
| Lung V40 | 11.74 ± 4.41 | 14.79 ± 6.63 | 0.182 |
| Lung V50 | 7.32 ± 4.14 | 9.17 ± 5.74 | 0.179 |
| Lung V60 | 2.78 ± 2.67 | 1.52 ± 1.52 | 0.140 |

Abbreviations: RP: Radiation pneumonitis, MLD: Mean lung dose \*Student’s t-test.

**Table S3. Association between dosimetric factors and esophagitis (≥ G3) by univariate analysis**

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Without esophagitis | With esophagitis | p-value\* |
| MED | 1.709.35 ± 808.72 | 2130.86 ± 562.26 | 0.174 |
| Esophagus V5 | 49.78 ± 16.64 | 51.86 ± 10.51 | 0.744 |
| Esophagus V10 | 42.73 ± 17.33 | 48.14 ± 11.14 | 0.444 |
| Esophagus V20 | 34.22 ± 17.22 | 43.54 ± 12.28 | 0.158 |
| Esophagus V30 | 20.51 ± 15.75 | 37.04 ± 9.93 | 0.152 |
| Esophagus V40 | 20.51 ± 15.75 | 28.71 ± 8.62 | 0.173 |
| Esophagus V50 | 10.59 ± 12.25 | 19.00 ± 12.43 | 0.076 |
| Esophagus V60 | 2.54 ± 5.52 | 4.41 ± 10.61 | 0.398 |

Abbreviations: MED: Mean esophageal dose \*Student’s t test.

**Table S4. Association between dosimetric factors and cardiac toxicity after treatment by univariate analysis**

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Without cardiac toxicity | With cardiac toxicity | p-value\* |
| Dmax of heart | 5577.58 ± 1432.02 | 6210.97 ± 641.23 | 0.001 |
| MHD | 1187.21 ± 1045.18 | 1379.64 ± 831.27 | 0.407 |
| Heart V5 | 35.68 ± 28.97 | 40.30 ± 24.54 | 0.474 |
| Heart V10 | 29.26 ± 25.86 | 32.33 ± 21.93 | 0.595 |
| Heart V20 | 22.26 ± 21.56 | 24.99 ± 17.34 | 0.569 |
| Heart V30 | 18.08 ± 18.85 | 20.25 ± 14.75 | 0.603 |
| Heart V40 | 13.36 ± 15.40 | 15.47 ± 11.91 | 0.537 |
| Heart V50 | 7.81 ± 11.16 | 9.17 ± 8.35 | 0.582 |
| Heart V60 | 22.11 ± 4.97 | 2.81 ± 4.27 | 0.526 |
| Dmax dose of LV | 2906.97 ± 2436.33 | 4020.64 ± 2317.97 | 0.044 |
| MVD | 564.33 ± 830.98 | 655.36 ± 613.52 | 0.620 |
| LV V5 | 20.94 ± 29.93 | 28.73 ± 26.25 | 0.246 |
| LV V10 | 15.03 ± 24.86 | 19.51 ± 20.92 | 0.420 |
| LV V20 | 9.41 ± 17.92 | 10.52 ± 12.21 | 0.779 |
| LV V30 | 6.38 ± 13.63 | 6.61 ± 8.39 | 0.937 |
| LV V40 | 3.98 ± 10.17 | 4.20 ± 6.52 | 0.921 |
| LV V50 | 1.73 ± 5.99 | 2.32 ± 4.64 | 0.653 |
| LV V60 | 0.23 ± 1.33 | 0.66 ± 1.98 | 0.177 |

Abbreviations: MHD: Mean heart dose, LV: Left ventricle, MVD: Mean left ventricle dose \*Student’s t test.