NSCLC, early stage

**1183PD**

**RISK STRATIFICATION MODEL FOR RESECTED SQUAMOUS CELL LUNG CANCER (R-SQLC) PATIENTS (PTS) ACCORDING TO CLINICAL AND PATHOLOGICAL FACTORS**

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**Aim:** The aim of this preliminary analysis (AIRC-MFAG project 14282) was to define a risk classification for R-SQLC on the basis of the combination of clinical and pathological predictors, to provide a practical tool for a better pts’ selection from a prognostic perspective.

**Methods:** Clinical and pathological data were retrospectively correlated to disease-free-, cancer-specific-, and overall-survival (DFS/CSS/OS) using a Cox model. Individual patient probability (IPP) was estimated by logistic equation. A continuous score to identify risk classes was derived according to the model ratios and dichotomized according to prognosis with the ROC analysis.

**Results:** Data from 573 pts from 4 different institutions were gathered. Pts characteristics: median age: 68 years; male/female: 387/89; tumor (T)-size 1-2/3-4: 352/118; Nodes 0/ > 0: 339/139; stage I-II/III-IV: 371/99. Hazard Ratios (with 95% confidence intervals and p-values) of the multivariate analysis are shown in the table:

<table>
<thead>
<tr>
<th></th>
<th>DFS</th>
<th>CSS</th>
<th>OS</th>
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</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.58 (1.14-2.18), p = 0.005</td>
<td>Not significant</td>
<td>2.17 (1.48-3.17), p &lt; 0.001</td>
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<tr>
<td>T-size</td>
<td>1.75 (1.22-2.51), p = 0.002</td>
<td>2.26 (1.40-3.66), p = 0.001</td>
<td>2.12 (1.40-3.21), p &lt; 0.001</td>
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<tr>
<td>Nodes</td>
<td>2.27 (1.57-3.27), p &lt; 0.001</td>
<td>2.93 (1.79-4.80), p &lt; 0.001</td>
<td>2.59 (1.70-3.96), p &lt; 0.001</td>
</tr>
<tr>
<td>Grading</td>
<td>1.41 (1.03-1.94), p = 0.033</td>
<td>1.45 (0.94-2.23), p = 0.08</td>
<td>1.65 (1.13-2.40), p = 0.008</td>
</tr>
</tbody>
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Multivariate model predicted IPP with high prognostic accuracy (0.67 for DFS). On the basis of the ROC-derived cut-off, a 2-class model differentiated low-, and high-risk pts for 3-yrs DFS (32.4% and 21.8%, p < 0.0001), CSS (84.4% and 44.3%, p < 0.0001), and OS (77.3% and 38.8%, p < 0.0001). A 3-class model differentiated low-, intermediate-, and high-risk pts for 3-yrs DFS (64.6%, 39.8%, and 21.8%, p < 0.0001), CSS (88.4%, 55.4%, and 30.9%, p < 0.0001), and OS (77.3%, 47.9%, and 27.2%, p < 0.0001). The prognostic power of both models was maintained at 5 years.

**Conclusions:** A risk classification system comprising the commonly adopted clinical and pathological parameters (age, tumor size, nodes and grading) accurately separates R-SQLC pts into different risk classes. The project is ongoing to integrate the model with investigational molecular predictors.

**Disclosure:** All authors have declared no conflicts of interest.