Background
Non Small Cell Lung Cancer

- Lung cancer is the leading cause of cancer death with only 17.4% 5-year survival.
- In 2015, an estimated number of 221,200 new cases were diagnosed and 158,040 deaths occurred.
- Patients signed informed consent.

Methods

The NLR was defined as the quotient of baseline absolute peripheral neutrophil count (cells/mm$^3$) over lymphocyte count (cells/mm$^3$)

Exclusion Criteria


Patient Population

Inclusion Criteria

- The use of clinical trials and randomized controlled trials with trastuzumab in patients with advanced non-small-cell carcinoma of the lung.

Exclusion Criteria

- The number of patients randomized to the Nivolumab arm was 79.
- The number of patients randomized to the Docetaxel arm was 82.
- The number of patients randomized to the Nivolumab arm was 79.
- The number of patients randomized to the Docetaxel arm was 82.

Results


Statistical Analysis

- Univariate analysis by Logrank test = 9.04, p=0.002635
- Univariate analysis by Logrank test = 9.04, p=0.002635

Overall Survival

<table>
<thead>
<tr>
<th>NLR</th>
<th>0 or &lt;5</th>
<th>≥5</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS 1 year</td>
<td>55% ± 13%</td>
<td>41% ± 14%</td>
<td>0.026</td>
</tr>
<tr>
<td>OS 2 years</td>
<td>43% ± 14%</td>
<td>31% ± 14%</td>
<td>0.012</td>
</tr>
</tbody>
</table>

Conclusions

- Nivolumab is a fully human IgG4 monoclonal antibody that binds to and blocks the activation of PD-1 by its ligand.
- Approval of nivolumab for advanced non-squamous NSCLC was issued in October 2015, based on demonstration of improvement in progression-free survival (PFS) and overall survival (OS) compared to docetaxel.

References


Table 2. Response.

<table>
<thead>
<tr>
<th>Response</th>
<th>NE</th>
<th>PD</th>
<th>SD</th>
<th>PR</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS 1 year</td>
<td>55% ± 13%</td>
<td>41% ± 14%</td>
<td>4% ± 14%</td>
<td>10% ± 14%</td>
</tr>
<tr>
<td>OS 2 years</td>
<td>43% ± 14%</td>
<td>31% ± 14%</td>
<td>4% ± 14%</td>
<td>10% ± 14%</td>
</tr>
</tbody>
</table>

Table 3. Progression Free Survival.

<table>
<thead>
<tr>
<th>NLR</th>
<th>OS 1 year</th>
<th>OS 2 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤5</td>
<td>55% ± 13%</td>
<td>43% ± 14%</td>
</tr>
<tr>
<td>&gt;5</td>
<td>41% ± 14%</td>
<td>31% ± 14%</td>
</tr>
</tbody>
</table>

Table 4. Overall Survival.

<table>
<thead>
<tr>
<th>NLR</th>
<th>OS 1 year</th>
<th>OS 2 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤5</td>
<td>55% ± 13%</td>
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</table>

Figure 1: Kaplan-Meier plot of PFS.

Figure 3: Kaplan-Meier plot of OS.

Figure 5: Kaplan-Meier plot of overall survival (OS).

Figure 7: Kaplan-Meier plot of overall survival (OS).

Figure 9: Kaplan-Meier plot of overall survival (OS).

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