Background and importance: The guidelines recommend anti-PD-1/PD-L1 immunotherapy as a second-line treatment in patients with locally advanced or metastatic non-small cell lung cancer (NSCLC) regardless of PD-L1 expression.

Aim and objectives: To evaluate the effectiveness of treatment with checkpoint inhibitors (ICI) (nivolumab, pembrolizumab and atezolizumab) in the second-line treatment of metastatic NSCLC.

Material and methods: Descriptive, transversal, retrospective

Patients treated with ICI in the second-line of metastatic NSCLC between 11/2013 and 09/2019

Variables: age, sex, histology, PD-L1 expression, ECOG at the beginning of treatment, cycles received, duration of treatment. Effectiveness criteria: median overall survival (OS), and OS at 2 and 3 years

RESULTADOS:

- 119 patients: 74.8% men. Median age at the beginning of treatment: 67 years (48-86)

<table>
<thead>
<tr>
<th>Clinical features</th>
<th>Effectiveness</th>
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<tr>
<td><strong>Histology:</strong> 59.48% adenocarcinoma, 37.07% squamous and 3.45% large cells.</td>
<td><strong>Median OS:</strong> 8.89 months [95%CI 6.13-11.65]</td>
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<td><strong>PDL1:</strong> 15.12% PDL1 (&lt;1%), 24.37% PDL1[1-50%] and 17.65% PDL1[&gt; 50%]; 42.86% expression not determined.</td>
<td>• OS at 2 years: 24.7%</td>
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<td><strong>ECOG:</strong> 47.31% ECOG 0 and 52.69% ECOG 1</td>
<td>• OS 3 years 17.0%</td>
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No significant differences were found in median OS based on PDL-1 or drug. Variable that significantly influenced in median OS were ECOG (ECOG 0 greater survival, p:0.045).

TREATMENT

- 53.78 nivolumab
- 14.29% pembrolizumab
- 31.93% with atezolizumab

- Median cycles administered 6 (1-57)

- 29.41% of patients carried a third-line chemotherapy: 57.14% taxane monotherapy, 11.42% pemetrexed, 14.28% carboplatin-pemetrexed and 17.16% others; with a median of OS of 7.77 months [95%CI 4.37-11.17].

Conclusion and relevance: Under conditions of usual clinical practice ICI achieve an OS of 8.72 months, lower than that obtained in the pivotal trials, however, the percentage of long survivors is similar to pivotal trials. Although the percentage of patients who were treated with a third line is low, their OS is considerable.