ASSOCIATION BETWEEN IMMUNE-RELATED EFFECTS AND EFFECTIVENESS OF FIRST-LINE PEMBROLIZUMAB IN ADVANCED NON-SMALL CELL LUNG CANCER

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BACKGROUND AND IMPORTANCE

Pembrolizumab in monotherapy (in patients with PD-L1 expression ≥ 50%) or in combination with platinum-based chemotherapy (CT), (PDL-1<50%), is the new standard therapy in first-line treatment of advanced or metastatic non-small cell lung cancer (mNSCLC).

AIM AND OBJECTIVES

To determine whether the incidence of immune-related adverse events (irAEs) following the use of pembrolizumab in first-line mNSCLC, is associated with clinical outcomes in real-world practice.

MATERIALS AND METHODS

An observational, retrospective study

Baseline patient characteristics were collected

Patients with mNSCLC treated with pembrolizumab in first-line

From January 2017 to January 2021

Treatment effectiveness: OS and PFS was measured

Immune-related adverse effects (irAEs) were categorised

OS and PFS were calculated for the population with any irAEs of any grade (irAEs+) and compared to patients without irAEs (irAEs-), in order to test our hypothesis.

RESULTS

A total of 62 patients:

Mean age 67.44 years; 77.42% men
47% former smokers, 45% smokers
Adenocarcinoma (87%)
ECOG/PS-1=50%, ECOG/PS-0=38%, ALK/ROS-1/EGFR negative (89%)
PD-L1≥50% (N=31), PDL-1<50% (N=27) and unknown (N=4)
50% received pembrolizumab and 50% pembrolizumab + CT
75.81% patients discontinued treatment due to progression

There were no significant differences in PFS and OS among the different populations

irEAs (N=164) were observed in 77.4% of patients

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<tr>
<th>Population</th>
<th>Median OS (months)</th>
<th>Median PFS (months)</th>
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<tbody>
<tr>
<td>Overall (N=62)</td>
<td>10.6 (95% CI 8.2–13.05)</td>
<td>7.4 (95% CI 4.6–10.3)</td>
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<tr>
<td>irAEs+ (N=48)</td>
<td>10.9 (95% CI: 8.6 - 13.2)</td>
<td>8.7 (95% CI: 5.9 - 11.6)</td>
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<td>irAE- (N=14)</td>
<td>4.4 (95% CI: 0 - 15.3)</td>
<td>2.3 (95% CI: 0 - 11.7)</td>
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CONCLUSIONS AND RELEVANCE

Our population did not reach statistical significance in the association between the presence of irEAs and clinical benefit.

This may be due to limited sample size.