Pembrolizumab vs nivolumab in second-line treatment of metastatic non-small cell lung cancer in clinical practice.

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Background

Nivolumab and pembrolizumab are immune checkpoint inhibitors targeting programmed cell death protein 1(PD-1). Few studies have compared the efficacy of these two drugs in the second-line setting.

Purpose

To compare nivolumab and pembrolizumab efficacy in second-line metastatic NSCLC.

Material and methods

- Retrospective observational study
- Patients diagnosed with metastatic NSCLC treated with nivolumab and pembrolizumab in second-line
- Tertiary-care hospital
- March-2016 - March-2020.
- Statistical analyses with SPSS® version 19.

Data were collected using electronic prescription and medical records. A p-value≤0.05 was considered statistically significant.

Variables

Age
Sex
Diagnosis
Drug
Treatment start/end date
Disease progression and death.

Results

Patients analyzed:

N=43
- Mean age 64 years (±7,7)
- 79,1% men

Nivolumab
n= 26(60,5%)
- Mean age 64 years (±6,8)
- 80% men

Pembrolizumab
N=17 (39,5%)
- Mean age 63 years (±9,2)
- 76,5% men

	Nivolumab	Pembrolizumab
Median time on treatment	3,5 months 0,5-24,8)	5,4 months(0,5-20)
Median PFS	4 months (95% CI:2,6-5,4)	5(95% CI:0-11,3)
Median OS	5 months (95% CI:2-8)	11 months (95% CI:6-16)

There were no significant differences in PFS (p=0,741) or OS (p=0,615) between both subgroups.

Conclusions

According to our results, nivolumab and pembrolizumab showed similar PFS. OS, although no statistically significant, was considerably superior among pembrolizumab patients.

These data might be clinically relevant. However, small sample size makes difficult to draw conclusions. Further studies should be conducted in order to confirm potential differences between both anti PD-1 and could be helpful to support clinician decissions.