BACKGROUND

• Lung cancer, one of the most common cancers worldwide, is a leading cause of mortality. Over 80% is comprised of non-small cell lung cancers (NSCLC), which can be subdivided in non-squamous and squamous cell carcinoma. 

• In 2020, it was estimated that there were 55,300 incident cases in Germany.

• The majority of incident cases is observed in men, where it is the 2nd most prevalent malignant tumor and 3rd for women within Germany.

• The disease is often diagnosed in stages IIIB/IV where available therapy mainly remains palliative.

OBJECTIVE

The aim of the study was to describe the overall treatment landscape for advanced non-squamous NSCLC and to compare progression-free survival (PFS) and overall survival (OS) of patients treated with the most prevalent platinum-based chemotherapy regimens.

METHODS

• Data from the iOMEDICO prospective, multicenter Tumor Registry Lung Cancer (TLK) assessing oncological care in Germany was utilized.

• Inclusion criteria for the TLK were:
  - Histologically confirmed NSCLC or small cell lung cancer (SCLC)
  - Age ≥ 18 years on index date
  - Definition of the start of first-line platinum-based chemotherapy
  - Exclusion criteria for the TLK were:
    - No history of primary or secondary malignancies
    - No evidence of primary cancer
    - No history of SCLC or squamous tumor

• Baseline characteristics before and after IPTW (Table 1) were analyzed, and averse mortality of treatment weighting (IPTW) analysis adjusting for age, gender, tumor stage, ECOG performance status, and smoking status. Median PFS and OS were assessed using Kaplan-Meier analysis, and log-rank test was used to compare these outcome between the treatment groups.

RESULTS

• The TLK included 2,402 patients. Applying the study selection criteria resulted in a final sample of 544 patients (Figure 2).

• First-line NSCLC Treatment Summary
  - In the overall sample, most prevalent chemotherapy treatments included combinations with carboplatin (71.9%), 4.1% of which in combination with ifosfamide (N=45). About 31.0% of patients received mono chemotherapy, patients received mono chemotherapy (N=245, 45.0%)

• Median PFS and OS were comparable when Pac/Plat (8.1 [95% CI 4.2-9.1] and 12.6 [7.2-22.4]) was compared to Pem/Plat (5.4 [95% CI 3.9-6.6]) and 5.7 [3.8-7.6]).

• No difference in PFS and OS was found between Pac/Plat, Pem/Plat, and Vin/Plat.

• In total, 67.1% of patients treated with Pem/Plat, Pem/Plat, and Vin/Plat, respectively, died.

• Further research is warranted regarding imbalances between the respective groups and how to specify the balancing parameters.

CONCLUSIONS

• Baseline comparisons of the treatment groups revealed differences in patient characteristics which could not be adequately balanced with the chosen IPTW analysis. These differences are of great importance and can be seen as limitations of the study.

• No difference in PFS and OS was found between Pac/Plat, Pem/Plat, and Vin/Plat.

• Further research is warranted regarding imbalances between the respective groups and how to specify the balancing parameters.

REFERENCES

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