Lung cancer patient treatment with immune checkpoint inhibitors: multicenter, NLP-guided data extraction from EHRs

Methods

Result 1: In a cohort of 730 lung cancer patients, the median age was 67 years and 67% were males. Most patients were current smokers, had metastatic disease, and were treated with pembrolizumab. Most treatments were given as combination in 1L.

Result 2: Most patients had a performance status (PS) = 1. A higher PS was associated with a decreased overall survival probability.

Conclusion: Autonomously extracting data from Oncology EHRs and validating OMOP-CDM hospital databases is feasible, enabling access to real-world data on lung cancer patients receiving ICI therapy. This approach provides insights into demographics, disease characteristics, and overall survival. Future analyses will shed light on immune-related adverse events, comorbidities, tumor stage, pathology, and treatment lines.