

4CPS-200: Inflammatory and nutritional prognostic score as a marker of outcomes in very elderly patients with non-small cell lung cancer treated with immunotherapy.

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BACKGROUND AND IMPORTANCE

Very elderly patients (≥ 80 years) with non-small cell lung cancer (NSCLC) have an inflammation and nutritional status that may influence treatment outcomes. Identifying this prognostic indicator remains an unmet clinical need.

AIM AND OBJECTIVES

To assess the prognostic value of the Inflammatory and Prognostic Score 3 (IPS3) and its association with overall survival (OS) and progression-free survival (PFS) in a real-world in ≥ 80 years patients.

MATERIALS AND METHODS



Retrospective and observational study conducted between 2018 and 2024 that included patients ≥ 80 years treated with immune checkpoint inhibitors.

Patient stratification: composite score* (IPS3)

One point for each altered parameter: Score 0 (favourable), score 1 (intermediate) and scores 2-3 (poor)

*Neutrophil-to-lymphocyte, lactate dehydrogenase and prognostic nutritional index

Collected variables

Demographic, clinical, histopathological and baseline biochemical data

OS and PFS were estimated using Kaplan-Meier curves and using the log-rank test ($p < 0.05$ significant).

RESULTS



32 patients

Mean age 82.6 years

Sex 81.3% (26) male

Histology 56.3% adenocarcinoma

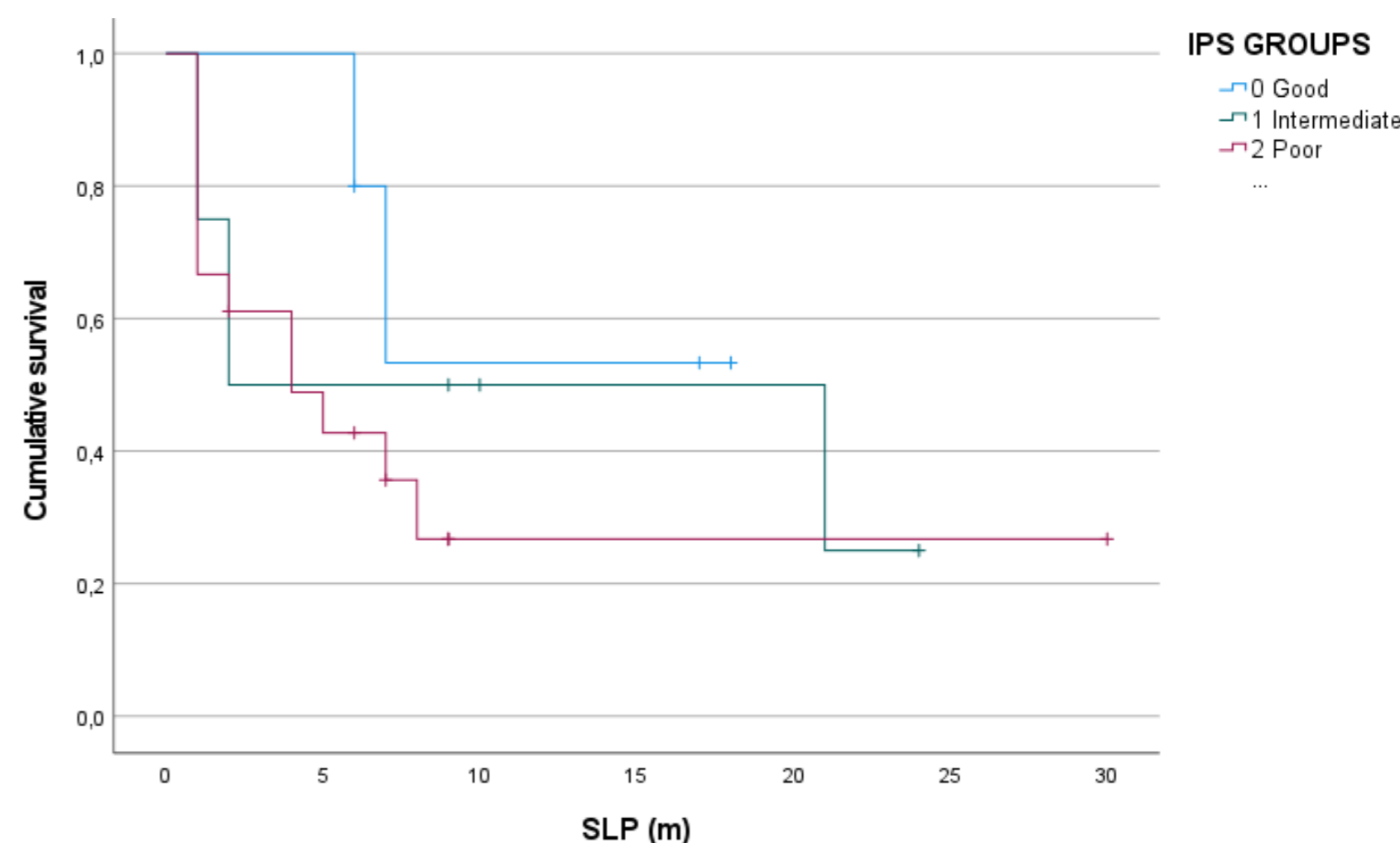
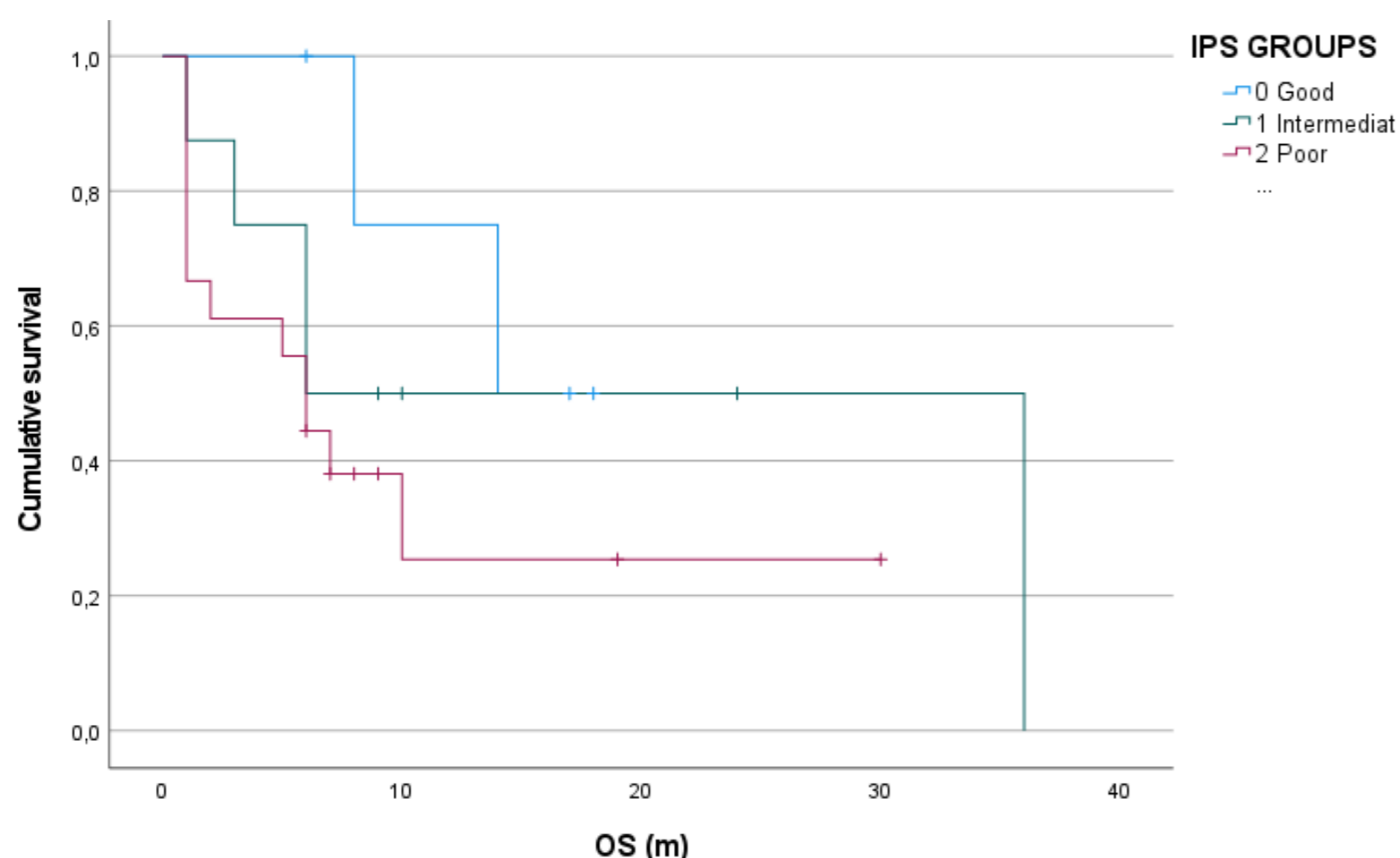
PD-L1 $\geq 50\%$ was observed in 34% of patients, and 12.5% had CNS metastases.

Treatment*

Pembrolizumab	71.9%
Nivolumab	21.9%
Durvalumab	6.3%

* 71.9% received monotherapy.

Based on the IPS3 prognostic score: 15.6% were classified as favourable, 25.0% intermediate, and 56.3% as poor.



Median **OS** was 8.0 months (95% CI 4.5-11.5) and **PFS** 7.0 months (95% IC 3.3-10.7). Not statistically significant (OS $p=0.259$, PFS $p=0.465$) but a trend toward poorer survival with higher scores was observed.

Grade ≥ 3 immune-related **toxicity** occurred in 9.4% of patients.

CONCLUSIONS AND RELEVANCE

The IPS3 composite score showed a consistent trend in predicting survival outcomes in very elderly NSCLC patients treated with ICIs. Despite limited statistical power, these parameters may support improved prognostic stratification in this vulnerable population.

