ESMO IMMUNO-ONCOLOGY VIRTUAL CONGRESS

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39P - The Lung Immune Prognostic Index (LIPI) as prognostic factor in solid tumors - the experience of a community hospital

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Background

Immune checkpoint inhibitors (ICI) have changed advanced cancer treatment over the last few years. Evidence suggests that **tumor-associated inflammation** influence the host immune response and its response to immunotherapy. **Lung Immune Prognostic Index** (LIPI) is a score that is correlated with patients' outcomes treated with ICI in certain malignancies.

Methods

Retrospective analysis of **114** patients with **solid tumors** who received **ICI** since January 2016 until June 2020. **LIPI score** was classified in 3 groups: **good (G), intermediate (I) and poor (P)** and tested for association with overall survival (OS) and progression free survival (PFS).

Results

	N = 114
Male	73.7%
Mean age	61 y
Treatment- naive	12.3%
Nivolumab	51.8%
Pembrolizumab	43.9%
Durvalumab	3.5%
Atezolizumab	0.9%

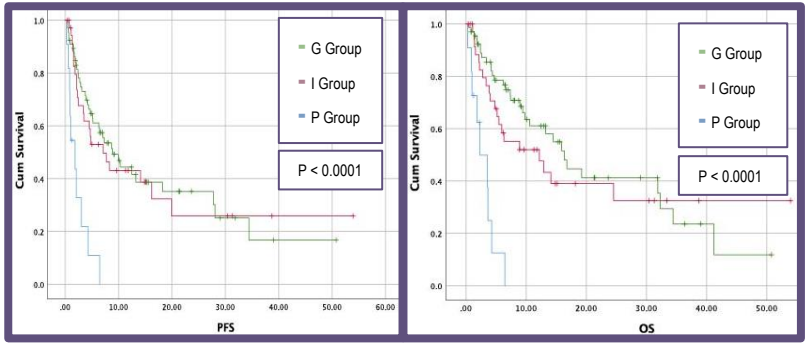
Type of cancer	%
NSCLC	80.7%
Bladder	7.9%
Renal	5.3%
Colorectal	2.6%
Breast	0.9%
Thymus	0.9%
Mesothelioma	0.9%
Nasopharynx	0.9%

LIPI Score Classification			
Good (G)	LDH ≤ Normal	and	Derived Neutrophil to Lymphocyte ratio < 3
Intermediate (I)	LDH > N	or	dNLR > 3
Poor (P)	LDH > N	and	dNLR > 3

Groups	% of patients
Good (G)	57.9%
Intermediate (I)	32.5%
Poor (P)	9.6%

mPFS (months)	
G Group	8.9 m (95% CI 5.0 – 12.7)
I Group	7.1 m (95% CI 2.4 – 11.8)
P Group	1.9 m (95% CI 0.5 – 3.2)

mOS (months)	
G Group	16.3 m (95% CI 12.2 – 20.4)
I Group	12.2 m (95% CI 2.4 – 22.0)
P Group	2.3 mo (95% CI 0.0 – 4.6)



Conclusions

Poor LIPI score was associated with **worse outcomes** for ICI treated patients with solid tumors. LIPI score may be a useful tool to select patients for ICI treatment.

DISCLOSURE INFORMATION: No disclosures to declare