

and their change after IO could help monitoring the response and outcome. Further prospective analyses are needed.

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156P Peripheral blood biomarkers as prognostic factors for immunotherapy in advanced non-small cell lung cancer (aNSCLC) patients

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Background: Second-line immunotherapy showed an overall survival (OS) benefit, but only a low percentage of aNSCLC patients (pts) respond to therapy. The identification of new biomarkers to select patients for immunotherapy (IO) is a crucial topic. In our study we aim to investigate the role of peripheral blood biomarkers (PBBs) that can predict response and outcome in aNSCLC pts treated with IO.

Methods: We conducted a retrospective analysis on 154 aNSCLC patients receiving single-agent nivolumab or pembrolizumab as second-line (68%) and >3rd line (32%) therapy. We recorded complete blood cell count at baseline (T0), at second (T1) and third cycle (T2), assessing absolute blood count and their ratio such as neutrophil-lymphocyte ratio (NLR), derived-NLR (dNLR) and lymphocyte-monocyte ratio (LMR). Univariate and multivariate analysis were performed to evaluate the correlation between overall response rate (ORR), PFS and OS and PBBs.

Results: The univariate analysis for PFS and OS showed that, at T1 and T2, $ANC \geq 7000/\mu L$, $AMC \geq 900/\mu L$, $NLR \geq 4$, $dNLR > 2.2$ were statistically significantly associated with worse survival outcomes and increased LMR > 1.8 with better survival outcomes. $ALC \geq 1200/\mu L$ was associated with higher PFS and OS at T1; $AEC < 100/\mu L$ was associated with worse PFS and OS at T1 and only PFS at T2. The multivariate analysis for PFS confirmed as statistically significant independent predictive factors ANC, ALC and dNLR at both T1 and T2, and AEC at T1, AMC and LMR at T2. The multivariate analysis for OS confirmed as statistically significant independent prognostic factors ANC, ALC, AMC and LMR at both T1 and T2 while dNLR only at T1 and NLR at T2.

Conclusions: In conclusion, factors such as high ANC, AMC, NLR and dNLR level can be considered as negative prognostic factors, and high AEC and LMR as positive prognostic factors in NSCLC patients treated with immunotherapy in \geq second line setting