

## CONFERENCE ABSTRACT

# Prognostic value of platelet to lymphocyte ratio in patients with non-small cell lung cancer

Mohammad Sabry Elkady, Ghada Refaat, Zeinab Elsayed, Kyrillus Farag\*

*Clinical Oncology Department, Faculty of Medicine, Ain Shams University, Cairo, Egypt*

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## ABSTRACT

**Background:** The prognostic value of Platelet-to-lymphocyte ratio (PLR) in patients with non-small-cell lung cancer (NSCLC) is still indistinct. We conducted this study to assess the prognostic significance of pretreatment PLR in patients with unresectable NSCLC.

**Aim of the Work:** To assess the prognostic significance of pre-treatment PLR in patients with NSCLC.

**Material and Methods:** We retrospectively reviewed 130 patients treated for NSCLC with definitive/palliative chemotherapy and/or radiotherapy in Ain-Shams University hospital, Clinical Oncology department between January 2014 and December 2016. Pre-treatment CBC was available for the 130 patients to calculate PLR by dividing the absolute platelet count by the absolute lymphocytic count.

**Results:** Out of 130 patients with available pre-treatment complete blood picture, population age ranged from 23 to 87 years. Male to female ratio was 4.8:1. Adenocarcinoma presents 51% of cases. Unresectable stage II and stage III present 2% and 27% respectively, while Stage IV presents 69%. Using a cut-off value of 150, a statistically significant correlation between baseline PLR > 150 and presence of distant metastases was found ( $p = .043$ ); with a trend towards less advanced stage disease among group of patients with baseline PLR < 150 ( $p = .064$ ). High PLR > 150 was significantly associated with poor overall survival (OS) (median OS: 10.33 months; 95% CI: 6.23-14.42), compared to patients with PLR < 150; (median OS: 24.63 months, 95% CI: 11.5-37.76,  $p = .008$ ), but not PFS. In multivariate analysis, PLR < 150 was an independent good prognostic factor for OS; (HR = 0.549; 95% CI: 0.314-0.958;  $p = .035$ ).

**Conclusion:** High PLR is associated with poor OS in patients with unresectable NSCLC.

**Key Words:** Platelet to lymphocyte ratio, Non-small cell lung cancer, Prognostic factor

\*Correspondence: Kyrillus Farag; Email: [kyrillus.atef@gmail.com](mailto:kyrillus.atef@gmail.com); Address: Clinical Oncology Department, Faculty of Medicine, Ain Shams University, Cairo, Egypt.