## Acute Coronary Syndromes

# HIGHER NEUTROPHIL / LYMPHOCYTE RATIO IS RELATED TO LOWER EJECTION FRACTION AND HIGHER ALL-CAUSE MORTALITY IN STEMI PATIENTS UNDERGOING PRIMARY PCI

Poster Contributions
Hall C
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**Background:** Neutrophil/lymphocyte ratio (NLR) is a novel biomarker that can single out individuals at risk for vascular events. We assess whether NLR provides additive prognostic data in patients with ST elevation myocardial infarction (STEMI).

Materials and **Methods:** NLR was computed from the absolute values of neutrophils and lymphocytes from the complete blood count of patients undergoing primary coronary angioplasty for STEMI. CAD severity was determined by an interventional cardiologist unaware of the study aims. The association between NLR and ejection fraction (EF) was assessed by logistic regression and the association between NLR and 5-year all-cause mortality were analyzed using Cox regression models, adjusting for potential clinical, metabolic, and inflammatory confounders. The cohort was divided into 2 groups according to NLR (NLR >6.5%, NLR≤6.5%) using CHAID and CART methods.

**Results:** In a group of 538 consecutive STEMI patients, NLR was independently associated with lower EF (OR= 1.93, CI 95% 1.3 - 2.9, p=0.001). In multivariate analysis, patients in the higher NLR group had higher 30 day mortality rates (OR= 15.8, CI 95% 1.6 - 154, p=0.018) and higher all cause mortality up to 5 years follow up (HR=2.2, CI 95% 1.04-4.8, p=0.039).

**Conclusion:** In patients presenting with STEMI, neutrophil/lymphocyte ratio is independently associated with lower EF and higher mortality rates up to 5 years. NLR value appears additive to conventional risk factors and commonly used biomarkers.