

**A Closer Look: Assessment of Acute Pancreatitis Prognosis Using Neutrophil-Lymphocyte Ratio**

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**ABSTRACT**

**Background/Objectives:** Acute pancreatitis (AP) is a common cause of hospitalization and severe cases are usually associated with a poor prognosis. Neutrophil to lymphocyte ratio(NLR) has been pointed as an indicator of systemic inflammation in several disorders. The aim of this study was to assess whether NLR at admission is able to predict severity of AP and some associated outcomes, while trying to establish the best cut-off value for outcomes.

**Materials and Methods:** Single-center, retrospective study, reviewing clinical data from AP patients admitted between January 2014 and December 2015. Four hundred and forty five patients were eligible for the study and NLR was calculated based on admission laboratory data. Patients were stratified according to severity, based on the Atlanta Classification, and comparative analysis was carried between groups.

**Results:** A total of 391 patients presented with mild AP and 54 with moderate or severe AP. NLR for the severe group was significantly higher than for the mild group (13.9±13.6 versus 10.1±9.4, respectively). There were also statistical differences in NLRs between all groups of analyzed outcomes except for in-hospital mortality. The best predictive NLR value for the stratification of AP severity was 9.2.

**Conclusions:** This study shows a significant correlation between NLR at admission and the severity of AP. Higher NLR values also predicted the development of organ failure, ICU admission and longer hospitalizations.

**Key words:** acute pancreatitis, neutrophil, lymphocyte, prognosis, severity