

## **Neutrophil-lymphocyte ratio as a predictive marker for the occurrence of contrast nephropathy**

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### **Abstract**

**Introduction:** Some studies have demonstrated the usefulness of the neutrophil/lymphocyte ratio (N/L) in identifying the risk of developing renal disease. The aim of this work was to determine the value of the N/L ratio in predicting the risk of occurrence of contrast-induced nephropathy (CIN).

**Methodology:** This was a retrospective study of 133 patients explored by coronary angiography or treated by coronary angioplasty during a 3-month period in 2023.

CIN was defined by an increase in blood creatinine of 44  $\mu\text{mol/l}$  or 25% of basal value, 48 to 72 hours post-procedure. We calculated the N/L ratio in any patient.

**Results:** The median age of the patients studied was 63 years, with a sex ratio of 2.33. Hypertension was present in 59% of patients. Diabetes was present in half the cases. The incidence of CIN was 15.7% (21 patients). The median N/L ratio in the CIN group was 4.8 versus 2.7 in the non-CIN group ( $p < 0.001$ ). A N/L ratio greater than 3.49 was significantly associated with the risk of CIN (odds ratio = 6.09,  $p = 0.004$ ).

**Conclusion:** The N/L ratio may be a promising, simple and inexpensive biomarker for predicting the risk of CIN.