

# Letter to the Editor

## The neutrophil lymphocyte ratio in patients with ST segment elevation myocardial infarction

Dear Editor,

We read with great interest the article 'The relationship between neutrophil/lymphocyte(N/L) ratio and the TIMI flow grade in patients with ST segment elevation myocardial infarction (STEMI) undergoing primary PCI' by Turkmen et al<sup>1</sup>. They aimed to assess the relationship between hematologic parameters and post primary PCI coronary no-reflow. They concluded that the N/L ratio, which is cheaply and easily measurable laboratory data is independently associated with post primary PCI coronary no-reflow.

A complete blood count is an easy examination technique that gives us information about the patient's formed blood contents; the red and white cells, the platelets, the count and dimensions of subgroups of cells, and parameters like the distribution weights, mean platelet volume. Although white blood cells are in normal range, subtypes of white blood cells may predict cardiovascular mortality. In recent years, N/L ratio has been proposed as a surrogate marker for endothelial dysfunction and inflammation in distinct populations and has prognostic and predictive values<sup>2</sup>. Because metabolic syndrome, left ventricular dysfunction or hypertrophy, acute coronary syndromes, valvular heart disease, congenital heart diseases, abnormal thyroid function tests, renal or hepatic dysfunction, known malignancy, local or systemic infection, previous history of infection (< 3 months), inflammatory diseases, and any medication that related to inflammatory condition of patients, the measurement of N/L ratio can be potentially affected in all of above conditions<sup>3</sup>. For these reasons, it would be better, if the authors had mentioned these factors.

Additionally, as we known, CRP determined by high-sensitivity methods hs-CRP is the most extensively studied biomarker of inflammation<sup>4</sup>. In recent study<sup>5</sup>, patients with STEMI who underwent primary PCI, elevated N/L ratio on admission were revealed to be strong correlated with hs-CRP. So, hs CRP, which is a powerful inflammatory marker, was also been considered together with N/L ratio in patients with STEMI, it would be better.

We believe that these findings will elucidate further studies about N/L ratio as a surrogate marker of prognosis in STEMI patients. Finally, N/L ratio itself alone without other inflammatory markers may not give information to clinicians about the chronic endothelial inflammatory condition of the patient<sup>6</sup>. So, we think that it should be evaluated together with other serum inflammatory markers.

### Conflict of Interest

The Authors declare that they have no conflict of interests.

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