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Letter to the Editor

Importance of neutrophil–to–lymphocyte ratio in coronary artery disease

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With great interest, I have read the article by Coskun et al (1).

The authors report that there is a correlation between mean platelet volume (MPV) and Gensini score; however, there is no significant correlation between neutrophil-to-lymphocyte (N/L) ratio and Gensini score in myocardial infarction associated with ST elevation. They also report that there is no significant correlation between both N/L ratio and MPV and Gensini score in myocardial infarction without ST elevation. However, studies in literature have shown the relationship between cardiovascular diseases and N/L ratio.

Leukocyte counts and the ratios of leukocyte subtypes are accepted as markers of inflammation in cardiovascular diseases. In relation to this, it has been shown that the N/L ratio is a marker of prognosis in heart failure, stable angina pectoris, and acute coronary syndromes. Elevated N/L ratios may reflect an inflammatory state and may be associated with perioperative myocardial damages and long term adverse outcomes. Neutrophils have been known to play a role in influencing the progression of atherosclerotic plaques. A reduced lymphocyte count is important to reflect physiological stress. A study reports the relationship between N/L ratios and mortality in ischemic heart disease (2). Similarly, increased preoperative N/L ratio is associated with increased mortality and morbidity as an independent risk factor in coronary artery bypass graft surgery (CABG) (3). Anesthesia methods used in patients undergoing CABG are also affected by N/L ratios (4).

Considering that increased preoperative N/L ratio is associated with long-term mortality after CABG (3) and preoperative N/L ratio is an independent predictor of saphenous vein graft patency after CABG (5), it becomes important to evaluate the preoperative N/L ratio, especially in patients undergoing CABG.

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