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LETTER TO THE EDITOR

Mean platelet volume may indicate early diagnosed gastric cancer based on inflammation

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Dear Editor,

We have read with great interest the article ''Mean platelet volume (MPV) could be possible biomarker in early diagnosis and monitoring of gastric cancer (GC)'' by Kılınçalp et al. [1]. This study assessed whether MPV would be a useful inflammatory marker to differentiate patients with GC from healthy controls. They also aimed to investigate the relationship between MPV levels and cancer stage in patients with GC. They showed that newly diagnosed patients with GC have significantly higher MPV values compared with the healthy controls. However, no relationship was observed between MPV values and tumor-nodulus-metastases (TNM) stages. Moreover, we found that surgical tumor resection resulted in a significant decrease in MPV values. The authors [1] suggested that MPV may be used in the diagnosis of patients with GC, independently of GC stage. The early determination of diagnosis and detection of GC is essential for tailoring therapy.

GC is the second most common cause of deaths from cancer worldwide, as though it is the fourth most common cancer. Reason for the higher mortality of GC may be associated with the extensive tumor invasion and early metastasis. Therefore, an immediate diagnostic evaluation should be made when GC is suspected. Routine peripheral blood counts may be helpful in early diagnosis in GC. Platelets play an important role in cancerous diseases based on inflammation due to secreted proinflammatory factors, chemokines, and growth factors [2]. MPV is a widely used laboratory marker associated with platelet function based on inflammatory conditions [3, 4]. Recently, increased levels of MPV were demonstrated in coronary artery disease, atrial fibrillation [5], cerebrovascular disease [6], chronic hepatitis B and C, ulcerative colitis, and celiac disease [7], all of that are related to endothelial dysfunction on the basis of inflammation [3]. Platelet parameters might be influenced by coronary risk factors including age, obesity, smoking, diabetes mellitus, hyperlipidemia, metabolic syndrome, and deep vein thrombosis [4, 8]. The higher MPV values are considered to be a useful indicator of higher thrombocyte activity and have been found to be associated with inflammation in patients with thyroid and rheumatic diseases [9, 10]. In addition, some medications such as anticoagulant therapy and statins can affect the MPV levels. MPV value was higher in chronic obstructive patients with pulmonary disease compared to controls [11]. Therefore, it would be interesting if the authors [1] had mentioned information about these conditions of these patients. Finally, because the authors evaluate GC retrospectively in this study, the authors might not accurately define how much time they specified on measuring MPV values, due to the delaying blood sampling, can cause abnormal results in MPV measurements.

In conclusion, the MPV value may be affected by many conditions. MPV itself alone without other overt inflammatory markers may not provide information about the chronic endothelial inflammatory condition of the patient [12]. So, the MPV should be evaluated together with other inflammatory markers like neutrophil lymphocyte ratio [13] and red cell distribution width [14]. We believe that these findings will guide further studies about MPV as a surrogate marker of early diagnosis in patients with GC.

Declaration of interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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